University College Dublin

REVIEW GROUP REPORT

Accepted by the UCD Governing Authority at its meeting on 24 October 2024

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Key Findings of the Review Group

Key Findings of the Review Group

The Review Group has identified a number of key findings in relation to areas of good practice operating within IT Services and areas which the Review Group would highlight as requiring future enhancement. The main section of this Report sets out all general comments, commendations and recommendations of the Review Group in more detail.

Please note that the numbers below refer to the relevant paragraph in the body of the Report.

Examples of Good Practice

The Review Group identified a number of commendations, in particular:

2.9   IT Services is commended for the progress it has made since the last review in relation to organisation and management, including the establishment of the position of Chief Information Officer, and the various actions which arose from a Price Waterhouse Coopers Report on the Review of Structures, Roles and Resources in UCD IT Services (2016).

3.9   IT Services is commended for the quality of its general service level, including set-up of new equipment and software. The availability levels and tiering of key services is also very good.

4.8   IT Services is commended for the quality and commitment of its staff.

4.10   IT Services is commended for the way in which it contributed to the management of the University's response to the COVID-19 pandemic.

4.12   IT Services is commended for the quality and management of its Data Centres.

5.18   IT Services is commended for the palpable positive and supportive attitude it has to the University and its people.

Recommendations for Future Improvement

The Review Group would suggest that the following recommendations be prioritised:

2.11   IT Services should develop a broad IT Strategy, which aligns with the UCD Strategy and complements other existing strategies within the University. The IT Strategy should be developed with input from the wide variety of stakeholders both within and outside the University. (see also 5.23)

2.12   As a matter of urgency, IT Services should expand Cyber Security risk analysis, and introduce further measures to promote greater Cyber Security awareness across the whole University and its external stakeholders - this should include mandatory training across the University and other technical measures (e.g. introduction of a Security Operations Centre) and a Cyber Security Incident Response Plan (CIRP) in the case of a major Cyber Security attack.

2.13   IT Services should consider the issues of both technical and financial governance, including a tightening-up of systems and device management, to promote greater efficiency and effectiveness and to promote enhanced Cyber Security. The Enterprise Architecture function of IT Services should be expanded, which can assist with technical governance across the University. The future prioritisation of IT resources is currently

unclear, and the Review Group encourages further collaboration with the UCD Programme for Operations and Services Transformation (UCD POST).

2.14   The University is quite permissive regarding access to IT including shadow IT. IT Services should work with key decision-makers in the University to evaluate the benefits and risks associated with the existing decentralised model of IT management. It should also develop institution-wide procedures, policies and tools to provide 'guardrail' principles around the use of shadow IT, and to identify and assess potential threats and vulnerabilities in IT infrastructure.

4.14   IT Services should work with UCD Human Resources to develop a plan for recruitment, retention, grading and IT staff wellbeing, in order to strengthen cooperation and reflect any issues of equality, diversity and inclusion.

5.20   IT Services should develop a communications plan, in conjunction with stakeholders, to define appropriate fora for regular engagement, and the associated frequency, terms of reference, membership and reporting lines.

1. Introduction and Context

Introduction

1.1 This report presents the findings of the periodic quality review of IT Services, University College Dublin, the site visit for which was undertaken on 8-12 May 2023. The IT Services response to the Review Group Report is included as Appendix 1.

The Review Framework

1.2 Irish Universities have collectively agreed a framework for their quality review and quality enhancement systems, which is consistent with both the legislative requirements of the *Qualifications and Quality Assurance (Education and Training) Act 2012*, and international good practice (e.g. *Standards and Guidelines for Quality Assurance in the European Higher Education Area, 2015*). Quality reviews are carried out in academic, administrative and professional support service units.

1.3 The purpose of periodic quality review is to assist the University to assure itself of the quality of each of its constituent units, and to utilise learning from this developmental process in order to effect enhancement, including:

- To monitor the quality of the student experience, and of teaching and learning.
- To monitor research activity, including management of research activity; and assessing the research performance with regard to research productivity, research income, and recruiting and supporting doctoral students.
- To identify, encourage and disseminate good practice, and to identify challenges and how to address these.
- To provide an opportunity for units to test the effectiveness of their systems and procedures for monitoring and enhancing quality and standards, aligned with University governance, policies and procedures.
- To encourage the development and enhancement of these systems, in the context of current and emerging provision.
- To inform the University's strategic planning process.
- The output report provides robust evidence for external accreditation bodies.
- The process provides an external benchmark on practice and curriculum.
- To provide public information on the University's capacity to assure the quality and standards of its awards. The University's implementation of its quality procedures enables it to demonstrate how it discharges its responsibilities for assuring the quality and standards of its awards, as required by the *Universities Act 1997* and the *Qualifications and Quality Assurance (Education and Training) Act 2012*.

The Review Process

1.4 Typically, the review model comprises four major elements:

- Preparation of a Self-Assessment Report (SAR);
- A visit by a Review Group that includes UCD staff and external international experts. The site visit normally will take place over a two or three day period;
- Preparation of a Review Group Report which is published on the UCD Quality Office website;
- Agreement of an action plan for improvement (Quality Improvement Plan) based on the Review Group Report's recommendations, which is also published on the UCD Quality Office website. The University will also monitor progress against the Quality Improvement Plan.

Full details of the quality review process can be found on the UCD Quality Office website: www.ucd.ie/quality.

The Review Group

1.5   The composition of the Review Group for the quality review of IT Services was as follows:

- Professor Alan Baird, UCD School of Veterinary Medicine (Chair)
- Ms Richael Leahy, Director of Financial Management, UCD Finance Office (Deputy Chair)
- Dr. Rachel Bence, Chief Information Officer, Queen Mary University of London, UK (Extern)
- Prof. Dr. Johann (Hans) Pongratz, Professor for Complex IT Systems and Digital Infrastructures, TU Dortmund, Germany (Extern)

1.6   In addition to the SAR, the Review Group considered additional information and documentation provided by IT Services and the University during the site visit. This also included meeting with additional stakeholders. The review site visit timetable is included as Appendix 2.

1.7   This Review Group Report has been read and approved by all members of the Review Group.

Preparation of the Self-Assessment Report (SAR)

1.8   The Self-Assessment Report Coordinating Committee (SARCC) was established in March 2022 and comprised staff members representative of IT Services' various areas and grades. Advice was requested and received from the UCD Quality Office to ensure an effective and inclusive approach to producing a constructively critical SAR.

1.9   Meetings of the SARCC were held on a regular basis over the period March 2022 to February 2023, 20 in total. Relevant tasks and timelines were agreed and allocated across members of the group to ensure timely progress against the project plan.

1.10   A number of meetings were also held with the IT Leadership Group throughout the process from February 2022 to February 2023 to seek guidance and approval.

1.11   Minutes of SARCC meetings were circulated to the SARCC with comments invited. Once approved, the minutes were posted on the committee's shared Google Drive for wider dissemination to the IT Services team. SARCC members also met their respective teams on a weekly or monthly basis and gathered useful and timely comments through this process.

1.12   An update on the SAR was given at each of the quarterly IT Services team meetings during 2022-23, and the SAR penultimate draft was circulated to all staff, with an open discussion held with the team to gain feedback. Where possible, relevant feedback was incorporated into the final SAR submission.

1.13   A Strengths, Weakness, Opportunities and Challenges (SWOC) workshop was held in November 2022, where there was a general consensus around the internal strengths and weaknesses of IT Services, as well as what are considered to be the greatest external challenges and potential opportunities facing IT Services. The IT Services Leadership Group was also invited to discuss the SWOC analysis in some detail and this feedback was incorporated where possible. The outputs of these productive meetings were detailed in the SAR.

1.14   An internal IT Services Staff Survey was issued to staff during November 2022 and the feedback received was incorporated into the SAR.

1.15   IT Services engaged in consultation with its core customers during the quality review process to ensure that the voice of the customer was taken on board. An all-Staff Survey was issued in December 2022 to UCD staff (approximately 4,000 individuals) and a Student Survey was issued to the final year student cohort, approximately 10% of the UCD student-base, in January 2023 (also approximately 4,000 individuals). The feedback from these surveys was both informative and generally positive and was included in the Appendices to the SAR.

1.16   The findings of the IT Services Staff, UCD Staff and UCD Student surveys were presented and discussed at an all-IT Services staff team meeting on 9 February 2023, with further comments and feedback received.

1.17   On completion, the SAR was submitted to the UCD Quality Office on 27 March 2023.

The University

1.18   University College Dublin (UCD) is Ireland's largest and most global university, founded in 1854. The University is primarily situated on a large modern campus about 4 km to the south of Dublin city centre with its graduate business school on the nearby Blackrock campus.

1.19   The University Strategic Plan 2020-2024: Rising to the Future states that the University's mission is: "to contribute to the flourishing of Dublin, Ireland, Europe and the world through the excellence and impact of our research and scholarship, the quality of our graduates and our national and global engagement; providing a supportive community in which every member of the University is enabled to achieve their full potential."

1.20   The University is currently organised into six Colleges and 37 Schools:

- UCD College of Arts and Humanities
- UCD College of Business
- UCD College of Engineering and Architecture
- UCD College of Health and Agricultural Sciences
- UCD College of Science
- UCD College of Social Sciences and Law

1.21   As one of the largest universities on the island of Ireland, UCD supports a broad, deep and rich academic community in Science, Business, Engineering, Health Sciences, Agriculture, Veterinary Medicine, Arts, Law, Celtic Studies and Human Sciences. There are currently more than 38,000 students, including over 2,000 PhD students, over 5,000 international students in overseas operations, and over 10,000 international students on the main UCD campus, with 144 nationalities in total represented in the student body.

UCD IT Services

1.22   Computer Services was established as a professional support unit in UCD in the 1970s and provided central IT applications, support and infrastructure for staff and students throughout the University. The Unit developed organically for a number of decades until senior university management decided to merge Computing Services with the Management Support Unit and the Audio Visual Centre to establish IT Services in 2007.

1.23   IT Services provides comprehensive customer support service to the University community giving users access to a multi-channel enterprise help desk and IT support hub, face to face service desk, deskside support and training. This includes services for Teaching and Learning, Research, support administration and university management, staff and students. All these systems are dependent on strong information security to keep the University's systems safe, which is a significant part of IT Services' remit. The IT Services Cyber

Security Programme addresses these risks and vulnerabilities in detail, implementing measures to protect the University's environment from cyber threats. IT Services also supports the infrastructure of the University that enables staff and students to work and study effectively. This includes the maintenance and ongoing support on all the underlying hardware and software that provide the platform to run key IT services for the University, essentially keeping the business of the University operating 24/7.

1.24   IT Services underwent a previous quality review in February 2015 from which a Quality Improvement Plan was developed in response to the Review Group Report.

1.25   An in-depth review of the IT Services organisation was conducted with the support of Price Waterhouse Coopers (PWC) in 2016 and an internal restructuring of IT Services followed. The PWC report was provided to the Review Group for the current review.

1.26   A new Chief Information Officer (CIO) was appointed in 2018 and set about implementing the restructuring of the Unit, which was organised in the following verticals and transversals so as to be better aligned to deliver IT services to the University community:

- Customer and Academic Services Group
- Enterprise Applications Group
- Finance and HR Group
- Infrastructure Group
- Partnership Group
- Programme and Risk Management Group

1.27   The Unit is composed of circa 90 technical, support and administrative staff and is led by the Chief Information Officer who is supported by the IT Leadership Group (ITLG). The ITLG consists of the Director of Infrastructure, Director of Customer and Academic Services, Director of Enterprise Applications and Head of IT Programme and Risk Management. The ITLG meets every week to review operational and strategic matters.

1.28   The SAR indicates that the gender profile of IT Services staff is 36% female and 64% male. The age profile of IT Services shows that the average age of staff members is 48 (the University equivalent is 44). Furthermore, 85% of unit staff are over 41 and 41% are over 51.

2.   Planning, Organisation and Management

General Comments and Context

2.1   UCD is committed to a strategic theme of transforming through Digital Technology in recognition that this is changing the nature of many activities. Such transformation goes through every discipline, research education and administration.

2.2   The organisational structure of the Unit, its workload, budget planning and project prioritisation, progress and delivery are all agreed and communicated to the University Management Team (UMT) IT Strategy Group. Core roles and responsibilities within the Unit are clearly described. However, while an IT Strategy 2020 was available, the Review Group observed a general lack of awareness of a broader, more recent IT Strategy.

2.3   Implementation of matters arising from previous reviews are catalogued in an updated (March 2023) version of the Unit's previous Quality Improvement Plan.

2.4   The capacity of the University to respond to the pandemic as successfully as it did was enormously supported by the preparations and reactions of IT Services.

2.5   IT Services has a sense of institutional history, distinctiveness, contributions, and a vision of its role in an environment which is rapidly developing sectorally and externally. The Chief Information Officer is a Board member of HEAnet (Ireland's National Education and Research Network, which delivers high-speed internet connectivity and ICT shared services to all levels of the Irish education sector), of which UCD is a member.

2.6   A process has begun which will lead to the Staff UCD Connect account being enrolled into Device Health. Once enrolled, to access any University SSO service, staff will be required to have the Device Health Application on their computer or laptop.

2.7   The presence and growth of shadow IT (software or hardware present in a computer system or network that lies outside the typical review process of IT Services) poses challenges in relation to technical and financial governance. Shadow IT is not currently catalogued systematically within the University, which creates potential risk for the institution and has implications for Cyber Security and data handling.

2.8   IT Services has developed and maintained Enterprise Architecture covering applications, technologies, infrastructure and data to provide a framework which is generally well regarded across multiple user groups, though key user engagement could be tracked and reported on more effectively.

Commendations

2.9   IT Services is commended for the progress it has made since the last review in relation to organisation and management, including the establishment of the position of Chief Information Officer, and the various actions which arose from a Price Waterhouse Coopers Report on the Review of Structures, Roles and Resources in UCD IT Services (2016).

2.10   The Review Group commends the Unit on the IT Systems Portfolio which is available to all members of the University as a master list of the Systems that underpin the Unit's support of University business.

Recommendations

2.11   IT Services should develop a broad IT Strategy, which aligns with the UCD Strategy and complements other existing strategies within the University. The IT Strategy should be developed with input from the wide variety of stakeholders both within and outside the University. (see also 5.23)

2.12   As a matter of urgency, IT Services should expand Cyber Security risk analysis, and introduce further measures to promote greater Cyber Security awareness across the whole University and its external stakeholders - this should include mandatory training across the University and other technical measures (e.g. introduction of a Security Operations Centre) and a Cyber Security Incident Response Plan (CIRP) in the case of a major Cyber Security attack.

2.13   IT Services should consider the issues of both technical and financial governance, including a tightening-up of systems and device management, to promote greater efficiency and effectiveness and to promote enhanced Cyber Security. The Enterprise Architecture function of IT Services should be expanded, which can assist with technical governance across the University. The future prioritisation of IT resources is currently unclear, and the Review Group encourages further collaboration with the UCD Programme for Operations and Services Transformation (UCD POST).

2.14   The University is quite permissive regarding access to IT including shadow IT. IT Services should work with key decision-makers in the University to evaluate the benefits and risks associated with the existing decentralised model of IT management. It should also develop institution-wide procedures, policies and tools to provide 'guardrail' principles around the use of shadow IT, and to identify and assess potential threats and vulnerabilities in IT infrastructure.

2.15   IT Services should update its data classification policy to categorize all stored information based on its sensitivity level, ensuring proper handling and lowering organizational risk.

2.16   IT Services should work with the UCD Quality Office to extrapolate from recent quality Review Group Reports any IT-related issues, which can then be referred to IT Services for further consideration and action.

3. Functions, Activities and Processes

General Comments and Context

3.1   The services provided by IT Services are appreciated by the wide range of user groups, "Telephone and in-person support are superb." On the other hand, a lack of transparency on how to start a new IT project was reported.

3.2   IT Services has formed a solid basis and has made good progress in implementing a comprehensive planning process, that also includes continuous improvement processes, supplier quality standards and service performance measurement. Some cornerstones for this were laid within the PWC Report of 2016.

3.3   In general, the overall IT landscape at UCD is scattered and decentralized. IT Services relies on many local IT teams, in central units, in Colleges and Schools, and the Student Union. In addition, there are external service providers. This is typical of central IT units at Higher Education Institutions of similar scale and complexity. Because of this a clear definition and transparent communication of the responsibilities of IT Services and the role of the Chief Information Officer seem mission critical to meet users' expectations.

3.4   It seemed to the Review Group that there is no consistent channel for IT Services to track user engagement with its service catalogue, which could provide useful information on the variety of IT services offered by UCD. Understanding the IT underlying traffic patterns is critical to keeping it running, planning its capacity, and protecting it from attacks.

3.5   The Review Group noted the extensive information on the IT Services Enterprise Architecture but was unable to locate a comprehensive research data management plan to provide guidance both for IT Services and other University units.

3.6   It was not clear to the Review Group if IT Services, or the University more generally, was engaged in evaluation and potential use of High Performance Computing (HPC) and Artificial Intelligence (AI) for the benefit of its activities and user community. There are also opportunities to further explore the potential benefits of Chat GPT and Quantum Computing.

3.7   IT Project management approaches should fit the project and the organisation. Based on the discussions held, it appears that further specification and support for the use of an Agile project management methodology and concepts would be helpful. The Review Group was informed that there were 170 active projects, which it believes is over-ambitious in terms of timely implementation for the assets currently available.

3.8   The issue of shadow IT, which poses Cyber Security risks and is key to all of the functions, activities and processes of the Unit and the University, is addressed in the preceding chapter.

Commendations

3.9   IT Services is commended for the quality of its general service level, including set-up of new equipment and software. The availability levels and tiering of key services is also very good.

Recommendations

3.10   IT Services should continue to work with other relevant University areas, such as the UCD Library and UCD Research, Innovation and Impact, to continue to develop out the research data management plan for the entire University, including archival storage.

3.11   The Review Group recommends that IT Services engages with the University Management Team to improve the overall planning and structure for management of IT-related projects.

3.12   IT Services is facing challenges which are typical of central IT units at Higher Education Institutions, so a cross-university exchange on IT governance, policies, guidelines, not only national but also international (Jisc, EUNIS, EDUCAUSE etc.) is recommended.

3.13   So far, there does not appear to be a UCD-wide strategy to regularly renew and fund High Performance Computing (HPC) and Artificial Intelligence (AI) resources. The Review Group recommends the development of a sustainable and broad HPC & AI strategy which will be key to future data-driven scientific achievements.

3.14   The Review Group recommends that the Unit works with University Management to build up new capacity within IT Services to evaluate and promote new Emerging Technologies at UCD, like ChatGPT or Quantum Computing. This could lead to closer collaboration in the field of IT between Colleges, Schools, and IT Services.

3.15   The Review Group recommends that IT Services develops a tracking system for its service catalogue in relation to all IT services offered by UCD. Continuous monitoring and reporting of usage patterns by collecting data and identifying patterns to help recognize normal and abnormal usage will enable IT Services to enhance the provision for users.

3.16   The Review Group was surprised to learn that that there are problems with the Wireless Local Area Network (WLAN) (e.g. with Eduroam). The Review Group recommends that a review be completed as a matter of urgency and a plan be developed to address any issues that emerge as soon as possible.

4.   Management of Resources

General Comments and Context

4.1   The Review Group was impressed by the quality of services and facilities (including help desks and Data Centres) provided by IT Services relative to the level of staff and other resources.

4.2   The Review Group noted that there is extensive building and capital development projects taking place on the campus, both for new buildings and refurbishment of existing buildings. These require fully planned IT infrastructure and maintenance, and the IT Services budget will need to account for this as appropriate.

4.3   The Review Group noted (from the UniForum Report 2020 provided) the number of IT staff resources UCD has, who do not work within the IT Services unit. The SAR focuses on IT Services' 88.5 FTE staff but is largely silent on staff in other units, specifically in colleges or institutes.

4.4   IT Services are facing similar challenges as other leading universities in attracting and retaining key IT talent. Staff recruitment and retention is challenging in the context of a changing global environment, increasing scales and sophistication of roles, competition with external entities and vulnerability to failures of Cyber Security. The Review Group recognises the highly competitive nature of the IT landscape and the impact that the sectoral and local policies and frameworks can have in this space. Management of IT talent needs to be a key priority for the IT Services leadership team and it has established an IT Resourcing Working Group to evaluate and address issues with recruitment and retention.

4.5   As referenced in the SAR, IT Services has a small partnership function - one member of staff dedicated to communication and one other has the role of being the sole "business partner." Several interviewees reported that they didn't know who to engage with within IT Services, but once they had a contact they kept using them.

4.6   The Review Group was informed that the Finance and HR Group within IT Services provides monthly management reports, but that these are "offline" files and are not integrated with other available data.

4.7   The Review Group noted that key areas such as IT Security and Enterprise Architecture were exceptionally small given the scale of the organisation. The University Strategy *Rising to the Future* identifies transforming through Digital Technology as one of the key pillars in achieving the strategy defined. The Review Group feels that IT Services have a key role to play in ensuring the success of the transformation and the ongoing maintenance, support and security of all digital solutions that form part of the solutions delivered.

4.8   It appeared to the Review Group that there is a possible issue with communications within IT Services departments. For example, during the writing of the SAR, staff were surprised that the same issues were coming through from all teams. This indicates that Unit staff are not engaging with each other to the extent that they could be.

Commendations

4.9   IT Services is commended for the quality and commitment of its staff.

4.10   IT Services is commended for the quality of the Self-Assessment Report (SAR) which was provided as part of the quality review process.

4.11   IT Services is commended for the way in which it contributed to the management of the University's response to the COVID-19 pandemic.

4.12   The Review Group commends the Unit on the establishment of an IT Resourcing Working Group.

4.13   IT Services is commended for the quality and management of its Data Centres.

Recommendations

4.14   IT Services should work with UCD Human Resources to develop a plan for recruitment, retention, grading and IT staff wellbeing, in order to strengthen cooperation and reflect any issues of equality, diversity and inclusion.

4.15   IT Services should review the resourcing levels to ensure that there is an adequate number of skilled staff to deliver on the existing portfolio and planned transformation. Particular emphasis should be placed on IT Security and Enterprise Architecture whose team make up are two and one respectively.

4.16   IT Services should consider extending the resourcing in the Partnership Group to strengthen engagement and two-way communication with other support units, Schools and Colleges and the student body. It is recommended that IT Services business partners support School forward planning and direct complex queries to the right IT Services individual or the IT Helpdesk where standard.

4.17   IT Services should ensure that the operational and capital refurbishment costs associated with the delivery of new physical building development and/or refurbishment is incorporated in the recurrent annual budget and five-year planning cycle.

4.18   IT Services should ensure that all faculty, staff and students of the University are made aware (and periodically reminded) of the services available via the face-to-face IT Centre in the Daedalus building and the (remote) IT Helpdesk.

4.19   The Review Group recommends that IT Services works with University Management to review the current hybrid working arrangements and put in place a formalised structure to facilitate the effective operation of the Unit.

4.20   The Review Group recommends that IT Services evaluates the potential benefits in leveraging existing resources in colleges/schools via building a network with the "external" IT resources which could improve communication and provide insight into "on the ground" issues.

4.21   IT Services should review the "offline" reporting being carried out by the Finance and HR Group to automate the production of monthly management reports.

5.   User Communication and Perspectives

General Comments and Context

5.1   Many of the attendees at the stakeholder meetings with the Review Group during the site visit reported a hugely supportive, knowledgeable and loyal workforce within IT Services. Unit staff were commended on their helpfulness in operations, with general support services reported as very good, and the critical and invaluable technical input they provided to the many projects they supported. For example, the flow of data within UCD Library systems has been underpinned with robust integrations and a good partnership with the UCD Library has been built up over time.

5.2   Generally IT Services input was considered to be invaluable on projects. The IT support for the implementation of the Kinetics (Kx) booking system in residences received commendation, "the best so far" from IT Services.

5.3   It was reported that IT Services's input to the Brightspace Virtual Learning Environment (VLE) project was hugely appreciated.

5.4   Acknowledgement of the work of IT Services is important for IT staff morale and should be communicated across the University. Staff reported that they did not feel valued as good work was rarely brought to the attention of the wider UCD community. One comment made from a Unit staff member was that "IT Services is lower down the food chain than other services." It was also commented that "previous UCD presidents would never reference the support services, including IT." It was felt that IT Services is invisible until something untoward happens, and then the spotlight falls upon the Unit.

5.5   The Chief Information Officer reported that he was confident that the Unit had the trust of the University to deliver what was needed.

5.6   The quality of the training was also commended by attendees at stakeholder meetings. One team member said that the personal and social aspects of the training were really important for overseas students who attended training.

5.7   The Review Group heard that the re-opening of the Daedalus building "drop in" centre was highly appreciated as this is seen to be a great service, particularly for device issues.

5.8   The Review Group is of the opinion that it is vital that there is excellent communication between IT Services and the rest of the University, be it other support units or colleges and schools. It is vital for the staff and students to understand the functions of IT Services, and the organisational structure and scope of the Unit. Some users reported that they did not understand the scope of the services being offered and there was disparity of awareness as to what services IT Services offers.

5.9   The Review Group found little or no awareness of an IT Strategy amongst the attendees at stakeholder meetings from outside of the Unit.

5.10   The Review Group is of the opinion that it is important to ensure that the IT Services annual planning and prioritisation cycle is well understood including the mechanisms for feeding into this process. Several interviewees reported that they had little insight into this process and would welcome an opportunity to be engaged earlier in the process. Other support units that were aware of the Unit's annual "work plan" reported issues with getting their projects onto the work plan.

5.11   The project and change delivery roadmap must also be well communicated and where necessary minor changes for impacted support and academic staff must be well managed. For example, it was reported that

when IT Services removed alumni email, some staff were unaware of the change. Also, when the new VLE Brightspace was introduced, communications were delivered, but were quite late. Furthermore, the new Voice Over Internet Protocol (VOIP) phone system works well but when academics came back onto campus after the COVID-19 pandemic, some reported that they had no idea what changes had taken place for their telephony.

5.12   It was noted that once a support ticket is raised, IT Services always responds and tickets always get resolved. However, the help desk didn't always appear to be the "single front door" for incidents and requests which it should be as best practice.

5.13   It is noted in the SAR that the Customer and Academic Services Group gathers customer support statistics and publishes these findings in the services dashboard. However, the Review Group believes that reporting of dashboards should be presented regularly/live at stakeholder meetings. It was proposed by academic interviewees that IT Services attends College Programme Boards which are held six times per year. In addition, ad-hoc communications sessions along the lines of the successful "village auditorium" where UCD Estate Services described their future developments and roadmap would be appreciated and highly useful for staff.

5.14   The Review Group believes it is important that IT Services understands the priorities, challenges and plans from stakeholders. The full academic cycle of the year should be well understood by the Unit for planning and business continuity purposes. It is noted in the SAR that Customer Services sit on the Orientation Advisory Group which coordinates all activities and communication to new incoming students. However, it was reported to the Review Group that PC labs managed by IT Services sometimes didn't have the right software loaded for the start of the academic year. For example, classrooms in the Daedalus Building will not run the ArcGIS web-based Geographic Information System software and this is needed. There is also an increasing number of in-lab exams and students uploading concurrently which causes WiFi issues which should be resolved. Software also needs to be kept up to date. Matlab is consistently behind the latest version and this creates a poor impression with the students.

5.15   The interviewees reported that the IT website is complex and hard to navigate if you don't know exactly what you are looking for.

5.16   The Review Group believes that documentation is essential to ensure that services can be well supported by any qualified staff member or by a third party if required and customers have access to helpful support documentation. This is particularly important when resources are scarce (where reliance on single individuals is common), but also in the context of a growing and increasingly complex IT portfolio. The Review Group found evidence that not all services were documented fully at project close-out.

Commendations

5.17   IT Services is commended for the palpable positive and supportive attitude it has to the University and its people.

5.18   IT Services is commended for its invaluable contribution to projects throughout the University.

5.19   IT Services is commended for the quality of training that it provides and also for the quality of service in the "drop in" centre.

Recommendations

5.20   IT Services should develop a communications plan, in conjunction with stakeholders, to define appropriate fora for regular engagement, and the associated frequency, terms of reference, membership and reporting lines.

5.21   IT Services should evolve to act not only as an Enabler, but also Gatekeeper for IT Services at UCD; by-passes should no longer be possible. To promote and ensure this, the Review Group recommends that the Unit considers appointment of a university relationship manager.

5.22   The Chief Information Officer should ensure that recommendations for IT Services praise are passed to the relevant communications channels. Based on the feedback received from various stakeholders, the Review Group felt that there is a real need to promote the work of IT Services much more proactively.

5.23   The Review Group is of the opinion that it is really important to engender an understanding of the forward IT strategy amongst the staff and student stakeholder community. The Review Group therefore recommends that IT Services provides a mechanism for stakeholders to have the opportunity to review and feed into the development of the IT Strategy. It was clear from the interviews that teams within and outside of the Unit were keen to contribute to a new digital strategy for the whole University. (see also 2.11)

5.24   IT Services should put in place a mechanism to capture and publish key user statistics in the form of hit counting to reflect the number of visits on a particular page of the IT Services website in order to audit engagement and traffic.

5.25   The Review Group recommends that the Unit should consider introducing a dedicated "ideas forum" to which staff and/or students can bring their ideas for smaller projects involving digital development that they might wish to instigate, to gain advice and guidance as to the process for doing so.

5.26   The Review Group is of the opinion that it is important to ensure that the engagement model for operational issues is clear and is followed. This includes processes around raising of support tickets, including promoting the IT Helpdesk as the "one front door" for all IT issues. Currently there are issues which are going unreported (for example, WiFi connectivity via Eduroam). The Review Group therefore recommends that staff and students are reminded that tickets are vital to track service issues and volumes.

5.27   The Review Group recommends that IT Services regularly attends College Programme Boards. It is recommended that ad-hoc communications sessions with the University should regularly be delivered to share forward plans.

5.28   The Review Group was informed that there was a perception among IT Services staff at all levels that one of the biggest challenges is not being listened to or not seen as a strategic partner. The Review Group therefore recommends that the Chief Information Officer meets regularly with relevant senior leaders in the University via regular one-to-ones to build engagement, communicate the IT vision and share challenges and priorities on both sides.

5.29   Regarding the PC labs, there currently appears to be no process for requesting the software or updates particularly in anticipation of the start of each academic year. The Review Group recommends that IT Services should address this.

5.30   The Review Group highly recommends that the Chief Information Officer engages in closer working with UCD Estate Services and their design/architecture teams on the digital equipping of the physical estate in order to avoid rework and to ensure IT support for expanded estate is embedded in forward planning.

5.31   The Review Group recommends that the IT Services website is updated, especially the aesthetics (look and feel), with students in mind. Knowledgebase/chatbot should be considered to supplement the website. Live chat should be considered as an additional channel for staff and student queries.

5.32   In relation to internal Unit communications, the Review Group recommends that renewed attempts should be made to promote cross-team working and engagement.

5.33   IT Services should review and complete the set of documentation necessary to support each IT service, focussing on the most critical first. The documentation set should include end-user manuals, system design documentation (including integrations), the service support model, standards for the encryption of user and usage data on client and server hard disks.

5.34   The Review Group recommends that there should be more extensive monitoring and alerting across the infrastructure layer, as well as regular penetration tests, disaster recovery plans (particularly for critical systems) and failover test plans. It is highly recommended that IT Services delivers an overall Business Continuity Plan (BCP) to be invoked in the case of a "crisis level" incident.

UCD IT Services
Response to the Review Group Report

The IT Services Unit wishes to sincerely thank the members of the Review Group for their valuable time, insightful and constructive feedback, both during the site visit and in the Review Group Report (RGR). We welcome the endorsement of the Review Group for our activities through commendations. In particular, IT Services welcomes the Review Group's endorsement of "the palpable, positive and supportive attitude it has to the University and its people," as well as "the quality and commitment of its staff." We will carefully consider, integrating where possible, all recommendations of the Review Group during the Quality Improvement Planning process.

We also wish to thank our many colleagues, academics, professional staff and students, for giving freely of their time to share their experiences and inform the future development of IT Services. There was a high level of engagement from all staff categories and the student community, both in compiling the Self-Assessment Report and in interacting with the Review Group during their site visit.

IT Services found the task of developing the Self-Assessment Report a valuable and reflective experience, which facilitated the Unit to review its position from a number of perspectives, both topdown and bottom up. The QA process assisted in highlighting and confirming our strengths and opportunities, as well as evaluating the Unit's weaknesses and challenges, in a systematic way. All in all, the Quality Assurance process and site visit were positive and constructive experiences.

Quality Improvement Plan (QIP)
IT Services has already begun formulating a Quality Improvement Plan (QIP) to address recommendations in the Review Group Report, and many actions have commenced already. IT Services' brief comments on the six RGR Key Recommendations are outlined below:

Recommendation A: (2.11) IT Services should develop a broad IT Strategy, which aligns with the new UCD Strategy and complements other existing strategies within the University.

Comment: Developing a UCD IT Strategy was the number two priority on the IT Services SAR Recommendations for Improvement list and we are very pleased to see this as the top priority coming from the Review Group Recommendations. Work has already begun on a draft Digital Strategy and we will seek to engage with the broader University in developing and driving UCD's Digital Strategy, while ensuring it is fully aligned with the new University Strategy.

Recommendation B: (2.12) IT Services should undertake a Cyber Security risk analysis, and introduce measures to promote greater Cyber Security awareness across the whole University and its external stakeholders - this should include mandatory training across the University and other technical measures (e.g. introduction of a Security Operations Centre) and a Cyber Security Incident Response Plan (CIRP) in the case of a major Cyber Security attack.

Comment: Investment in Cyber Security was joint number five priority on the IT Services SAR Recommendations for Improvement. Much work has been done to date in this area and we welcome the Review Group's endorsement for further investment and expansion of this critically important area. Our multi-year, multi-project Cybersecurity Programme is well underway, with a number of projects already completed. Data Privacy and Security Training is currently mandatory for all staff. The development of the Cyber Security Incident Response Plan (CIRP) is underway, the SOC/SIEM project, including the required resource plan, has been approved for commencement in 2023/24 and engagement with our Auditors is underway to undertake an independent assessment of our Cybersecurity Risk Register.

Recommendation C: (2.13) IT Services should consider the issues of both technical and financial governance, including a tightening-up of systems and device management, to promote greater efficiency and effectiveness and to promote enhanced Cyber Security. The Enterprise Architecture function of IT Services should be expanded, which can assist with technical governance across the University. The future prioritisation of IT resources is currently unclear, and the Review Group encourages further collaboration with the UCD Programme for Operations and Services Transformation (UCD POST).

Comment: UCD Governance and Strategic Positioning of IT Services was the number four priority on the IT Services SAR Recommendations for Improvement list. IT Services has commissioned an externally led audit of University-wide IT Governance to include 'local IT' and 'shadow IT' to commence in Q4 2023. We will review the implications on Enterprise Architecture services and requirements following this audit. The full support of the UMT will be required to achieve University-wide compliance and alignment with Enterprise Architecture Principles and Cyber Security Policies.

IT Services has an established planning and prioritisation process, working closely with all our clients and the Finance Office, with oversight from the UMT IT Strategy Group, to synchronise our IT Work Programme with UCD's Integrated Business Planning Cycle. This ensures effective prioritisation, budgeting, resource allocation, architectural and technical alignment and execution of change programmes and projects. The UCD POST programme will be giving further consideration to its planning cycle and a revised process is to be agreed and published before the next planning cycle.

IT Services will, as always, continue to listen to and collaborate closely with all our clients, University-wide initiatives and innovations, to maximise digital benefits to the UCD community.

Recommendation D: (2.14) IT Services should work with key decision-makers in the University to evaluate the benefits and risks associated with the existing decentralised model of IT management. It should also develop institution-wide procedures, policies and tools to provide 'guardrail' principles around the use of shadow IT, and to identify and assess potential threats and vulnerabilities in IT infrastructure.

Comment: UCD Governance and Strategic Positioning of IT Service was joint number four priority in the IT Services SAR Recommendations for Improvement. We welcome this recommendation and agree that investment in IT across the University should be regulated to ensure consistency of direction, compliance with Enterprise Architecture Principles, IT Security Policies, Data Protection, value for money, etc.

IT Services acknowledges that a large IT portfolio lies outside of our control and are working on a governance policy in a bid to minimise the associated risk to the University. An externally led audit of University-wide IT Governance to include local and shadow IT is due to commence shortly with the view to informing University policy within this space. These policies will need to be backed by UMT in order to ensure compliance and consistency across the University.

Recommendation E: (4.14) IT Services should work with UCD Human Resources to develop a plan for recruitment, retention, grading and IT staff wellbeing, in order to strengthen cooperation and reflect any issues of equality, diversity and inclusion.

Comment: Investing in Our People was the number one priority on the IT Services SAR Recommendations for Improvement list and it is reassuring to have the support of the Review Group for this initiative going forward. This is an ongoing process and IT Services continues to work with UCD HR and the Registrar & Deputy President to address the challenges we face regarding grading, recruitment, retention, etc.

Recommendation F: (5.20) IT Services should develop a communications plan, in conjunction with stakeholders, to define appropriate fora for regular engagement, and the associated frequency, terms of reference, membership and reporting lines.

Comment: Communications and Engagement was the number three priority on the IT Services SAR Recommendations for Improvement list. It is recognised that IT Services have focused greatly on core service delivery and that establishing a cohesive communications and engagement plan is important. The goal is to verify how best to effectively communicate with our disparate customer bases. The development of a Communications & Engagement Plan is included in the IT Work Programme 2023/24.

Site Visit Timetable - UCD IT Services

SESSION 1 **Review Group Planning Meeting** **Monday, Monday, 8 May 2023** **Room 213, Tierney Building, UCD**	
All times are local Irish time	
17:00-18:00	Preliminary Comments and areas for discussion
18:00-18:15	Break
18:15-19:00	Timetable Review, assignment of Review Group roles for meetings/questions, additional information requests
19:30	Dinner hosted for the Review Group by the Registrar & Deputy President or Nominee

SESSION 2 **Core Activities & Stakeholder Feedback** **Tuesday, 9 May 2023** **Review Group Base HQ: Meeting Room Computer Centre** **Stakeholder Meetings: Computer Centre Boardroom**	
All times are local Irish time	
09:00-09:30	Review Group only – Key observations & preparation for next session
09:30-10:30	SESSION 2.1, Stakeholder meeting – Head of IT Services Unit
10:30-10:45	Review Group only – Key observations & preparation for next session
10:45-11:30	SESSION 2.2, Stakeholder meeting – IT Leadership Group
11:30-11:45	Review Group only – Tea/Coffee Break
11:45-12:15	SESSION 2.3, Stakeholder meeting – Heads of Services
12:15-12:30	Review Group only – Key observations & preparation for next session
12:30-13.00	SESSION 2.4, Stakeholder meeting – Self-Assessment Report Coordinating Committee
13:00-13:45	Review Group – Lunch
13:45-14:15	SESSION 2.5, Stakeholder meeting – Unit Staff: Customer and Academic Services Group
14:15-14:30	Review Group break – Key observations & preparation for next session
14:30-15:00	SESSION 2.6, Stakeholder meeting – Unit Staff: Enterprise Applications Group
15:00-15:15	Review Group break – Key observations & preparation for next session
15:15-15:45	SESSION 2.7, Stakeholder meeting – Unit Staff: Infrastructure Group
15:45-16:00	Review Group only – Tea/Coffee Break
16:00-16:30	SESSION 2.8, Stakeholder meeting – Unit Staff: Programme & Risk Management Group
16:30-16:45	Review Group – Key observations & preparation for next session
16:45-17:15	SESSION 2.9, Stakeholder meeting – Unit Staff: Finance and HR Group & Partnership Group
17:15-17:30	Review Group – Key observations & preparation for next session
17:30	Review Group departs

	SESSION 3
	Core Activities & Stakeholder Feedback
	Wednesday, 10 May 2023
	Review Group Base HQ: Meeting Room Computer Centre
	Stakeholder Meetings: Computer Centre Boardroom
All times are local Irish time	
09:00-09:30	Review Group only – Key observations & preparation for next session
09:30-10:15	SESSION 3.1, Stakeholder meeting – Finance Manager & Head of Unit (unit financial situation)
10:15-10:30	Review Group only – Key observations & preparation for next session
10:30-11:15	SESSION 3.2, Tour of Unit facilities with Head of Unit
11:15-11:30	Review Group only – Tea/Coffee Break
11:30-12:30	SESSION 3.3, Stakeholder meeting – Heads of Colleges and Research Institutes
12:30-13:30	Review Group only – Working Lunch
13:30-14:30	SESSION 3.4, Stakeholder meeting – Academic, Research Staff and Student Reps
14:30-14:45	Review Group only – Tea/Coffee Break
14:45-15:45	SESSION 3.5, Stakeholder meeting – Support Service Representatives
15:45-16:00	Review Group only – Key observations & preparation for next session
16:00-17:00	SESSION 3.6, Stakeholder meeting – Support Service Representatives (cont'd)
17:00-17:30	Review Group only – Drafting of key initial commendations/recommendations
17:30	Review Group departs

	SESSION 4
	Core Activities, Stakeholder Feedback & Exit Presentations
	Thursday, 11 May 2023
	Review Group Base HQ: Meeting Room Computer Centre
	Stakeholder Meetings: Computer Centre Boardroom
All times are local Irish time	
09:00-09:30	SESSION 4.1, Stakeholder meeting – Programme Director - POST
09:30-10:00	SESSION 4.2, Stakeholder meeting – HR Partner & Head of Unit (Personnel Situation)
10:00-10:30	SESSION 4.3, Review Group Report Drafting Session
10:30-10:45	SESSION 4.4, Review Group meeting w/ Registrar to outline key findings (commendations & recommendations)
10:45-11:00	Review Group – Tea/Coffee Break
11:00-12:00	SESSION 4.5, Review Group Report Drafting Session
12:00-12:45	Review Group – Working Lunch
12:45-13:45	SESSION 4.6, Review Group Report Drafting Session
13:45-14:00	SESSION 4.7, Review Group meeting w/ Registrar and Head of Unit to outline key findings (commendations & recommendations)
14:00-14:15	Review Group only – Break
14:15-14:30	SESSION 4.8, Review Group meeting with all available Unit staff to outline key findings (commendations & recommendations) Venue: Science Building, Science Hub H1.49
14:30	Review Group departs