During 2015-16, the University’s continued investment in ICT staff and equipment allowed us to enhance and expand our range of services, building upon the transformation work carried out in previous years.

I am delighted we have been able to improve the student and staff experience through the launch of “Apps Anywhere”, which delivers software to wherever it is required when previously it was restricted to a fixed location or device. We have also been working closely with academic colleagues to pilot a new lecture capture service and we continue to upgrade our learning and teaching facilities, standardising equipment across the University where possible to ensure it is of high quality and easy to use.

The University’s research activities have been strengthened through the provision of a secure and stable environment for its High Performance Computing facility and expanded data storage. The start of term on-boarding process for students is now established and customer satisfaction surveys indicate we maintain an efficient support service in classrooms and across the campus.

In a rapidly evolving digital world, delivering an innovative yet cost-effective service supporting the varied and complex needs of diverse and demanding stakeholders is a major challenge. Training our agility is therefore a key focus. In the area of cyber security we see many threats targeted at us on a daily basis and ensuring a secure and compliant IT environment will remain an imperative. We continue our development of a second data centre site to improve business resilience.

A highly successful IT apprenticeship scheme and ongoing staff development ensures we continue to develop the talent required for the future.

Steve Watt
Chief Information Officer
As part of our rolling programme of upgrades, we replaced AV facilities in the following rooms:

- Arts Lecture Theatre
- BMS Seminar Room 1.13
- Buchanan – Multimedia Centre Rooms 1 and 2
- Bute Lecture Theatres A and D
- Bute PC Classroom
- Corris-102-G
- Econometrics Computer Classroom
- Gateway Meeting Rooms 1 and 3
- Gateway Mental Room
- Gateway Pearce Room
- Irvine 300, 307 and Computer Classroom
- Maths Lecture Theatre A, C and D
- Physics Lecture Theatre A
- Psychology Seminar Rooms
- Podilus Lecture Theatres A and C
- School of School B
- Sir Mary’s Lecture Room 3
- Younger Hall

In rooms with natural light, laser projectors were fitted, providing brighter, sharper images in high resolution. To further improve usability, we continued to standardise button and touch-panel controls on Extron technology, which has proved sturdy and reliable.

Interactive Projection systems
We added interactive projection systems to Arts Building Seminar Rooms 1, 4 and 7, which means all nine rooms now offer interactive boards for teaching.

Gateway upgrades
The four small meeting rooms in the Gateway now have 55” TV monitors along with the necessary cabling to allow users to connect their own device. Some of the larger rooms are now fitted with interactive SMART podiums and pens.

Microsoft System Center Configuration Manager (SCCM)

The SCCM provides Windows build management and software application deployment services. We designed, implemented and configured the SCCM to replace numerous disparate systems used previously, including PXENADS, IASC and Novell ZENworks. This change has offered a more reliable, sustainable service and facilitated the use of self service to deliver an improved customer experience.

Events and Film Production

The Media Services team provide live streaming and recording capabilities for University and external events. They cover events such as:
- Opening ceremonies
- Graduation ceremonies
- Seminars
- Lectures
- Conferences
- Sports day events

The films can be found on the University’s video channel: https://vimeo.com/user20577780

In summer 2016, we launched a new service to allow students and staff to access specialist software applications from any University PC across the University. Historically, this software has only been available on PCs in the School where the applications are taught, which can be restrictive. Apps Anywhere is built on Cloudpaging (formerly Application Jukebox) technology and allows applications to stream to devices ‘on demand’.

The new service is available to all student PC classrooms, residences and open access spaces with a view to making it available on personal devices in 2016-17.
Supporting Research

High Performance Computing (HPC) Hosting
Our Data Centre was selected to house the new High Performance Computing (HPC) platform. The cluster was procured from Bull, the HPC division of Atos Technologies, and contains more than 1,500 Intel Xeon E5 Broadwell-EP CPU cores, supporting over 500,000 compute threads. The system also features a pair of IBM i290 Graphic Processing Units (GPU), 10Gbps of storage and a 10Gbps InfiniBand interconnection in its connected duo University network with multiple 10Gbps Ethernet links, and a suitable architecture, enabling future expansion. Co-locating the HPC with the Data Centre provides a level of infrastructure redundancy not previously available at St Andrews, ensuring a highly available and robust service.

Collaboration Tools
The Office 365 implementation was completed in the Autumn of 2015 which has delivered several collaboration tools. Office 365 provides a cloud storage and synchronisation application with up to 1TB of data storage with version history. When used with Microsoft Groups, this facilitates collaboration between researchers from across the world. Office 365 also includes Microsoft Teams, which provides a messaging and synchronisation application with up to 1TB of data storage with version history. When used with Microsoft Groups, this facilitates collaboration between researchers from across the world. We review and report our call management system, UniDesk. This enables us to monitor and track the progress of their calls via an IT Self-Service portal.

Research Data Storage
We procured a Dell Compellent SC9000 system to provide data storage to researchers and students. The storage is mirrored between two sites across the University campus. The system consists of 722TB of raw storage in two tiers. Tier 1 comprises 84TB of Solid State Disks with the rest of the storage provided on Hard Disk. The procedure of migrating research data onto the new storage is underway with over 120TB of data already moved. To ensure optimum performance we offer virtualised servers co-existing with this storage. These are provided on a Cisco Unified Computing System blade platform. 52 percent of the storage is already in use, with the rest of the storage available for use.

The Office 365 implementation was completed in the Autumn of 2015 which has delivered several collaboration tools. Office 365 provides a cloud storage and synchronisation application with up to 1TB of data storage with version history. When used with Microsoft Groups, this facilitates collaboration between researchers from across the world. Office 365 also includes Microsoft Teams, which provides a messaging and synchronisation application with up to 1TB of data storage with version history. When used with Microsoft Groups, this facilitates collaboration between researchers from across the world. We review and report our call management system, UniDesk. This enables us to monitor and track the progress of their calls via an IT Self-Service portal.

Call Management
We provide a comprehensive range of services, including answering questions, fulfilling requests and assessing normal levels of service when problems arise. The first point of contact is our IT Service Desk where calls are logged on our call management system, UniDesk. The faulty user is advised on how to access their free Microsoft Office suite. We also provide a comprehensive range of services, including answering questions, fulfilling requests and assessing normal levels of service when problems arise. The first point of contact is our IT Service Desk where calls are logged on our call management system, UniDesk.

Service Delivery

Start of Term
Providing new and returning students with a frictionless IT support experience is very important to us. We know that when students arrive in the Freshmen, they receive a lot of key information – and they need to get online as soon as possible. By working closely with colleagues in other units, we co-ordinate a start of term support service to meet the needs of new and returning students. We also produce short films for the start of term:

https://vimeo.com/137955505

In addition of 2015-16 arrival weekend, 4,000 IT Welcome packs were placed across student residence bedrooms. Our ‘Quick Guide to IT’ gave instructions on connecting to the wireless Wi-Fi network, provided details of our PC Clinic service and advice on how to access the free Microsoft Office suite. We also produced 5200 student ID cards prior to students arriving, ready for collection at University halls of residence.

During arrival weekend, we offered IT support in all halls of residence and in the Main Library from 10:00 to 18:00 on both the Saturday and Sunday. We also encouraged all new students (and their parents) to give us feedback – offering them a chance to win one of four gift vouchers for a local store. We are always overwhelmed by the positive comments we receive.

An IT support team member was also based at the matriculation venue during Orientation Week, and we employed senior staff members to bolster the IT support provision during the first few weeks of term. We provide a comprehensive range of services, including answering questions, fulfilling requests and assessing normal levels of service when problems arise. The first point of contact is our IT Service Desk where calls are logged on our call management system, UniDesk.

Gary presents Marcus (Library), our February 2016 One Minute Survey prize winner, with his £10 gift voucher.
Major Incident Management

We formalised the process for handling situations where loss of service impacts a significant number of staff and/or students, putting in place protocols to ensure the eight people are informed and kept updated. From events, a team of senior staff reviews the handling of the incident and takes steps to ensure, as far as possible, future occurrences are prevented/reduced.

Office 365

During the summer of 2015, all University staff were moved from a hosted email service to Office 365. The new service provides an integrated sharing of email, Office applications and storage, supporting the University’s vision of enabling a more flexible approach to working. Students who joined the University during the 2015-2016 academic year were also provided with an Office 365 account.

Benefits include:
- 1TB of mailbox storage using Outlook or the Outlook Web App;
- Advanced calendaring allowing staff and students to schedule meetings and share their availability;
- 1TB cloud storage and file-sharing capabilities using OneDrive for Business;
- Office Apps in the cloud (Word, Excel, PowerPoint, OneNote etc.) that are optimised for mobile devices;
- Five copies of desktop Microsoft Office for personal use;
- Skype for Business (Staff only).
The Business Intelligence (BI) team, often referred to as the Qlikview team, continues to support several business critical reporting applications across HR, Finance, Estates, Admissions, Registry and ITS. New applications were released to support Workforce Planning activity and to monitor charitable donations to the University. A further six dashboards were upgraded to align with the University’s Digital Pattern Library.

Across the diverse suite of 19 live applications, we saw increases of 9% in users and 25% in usage. There are six new applications currently undergoing development.

A number of staff changes took place during 2015 with the team growing to a full complement of 5 FTE by January 2016. The newer staff members have quickly integrated with the team using iterative Agile working practices and a rota system for responding to IT Service Desk calls.

The Management Information Group continues to accept and prioritise work on behalf of the BI team to ensure we align with the University’s Management Information needs. We continue to play a significant role in reviewing the current infrastructure, tools and governance supporting Management Information and will take a lead role in the delivery of key institutional reports.

Since February 2016, we have provided a greater level of business support for Tribal’s Student Information Desk (SID) product suite, providing Service Units with analysis of business process requirements and work configuration. We want to enable the use of SID as part of the five processes and continue to provide a dedicated technical support to the SID programme to widen the adoption of SID across Schools and Service Units.

Through the facilitation of the University’s SID internal users group, we have a platform for staff to continually review the efficacy of the product and propose enhancements through dialogue with the software vendor (Tribal Education). To strengthen its partnership with Tribal, the group has participated in testing of new software iterations and provided a presentation on SID at Tribal’s annual conference.

We have also provided a programme of user training and created an institutional reference guide for user group members, to augment their knowledge of the product.

In June 2016, we upgraded the Student Record System (SITS) to version 9.1.0. This upgrade included an overhauled eVision framework that is responsive to screen width and therefore now suitable for use on mobile devices.

It also enabled us to bring consistency to the brand and style of eVision itself. Previously there was a disparity between task-based content that had been customised to use the Digital Pattern Library responsive framework and the system-generated portal content. It is now far easier to achieve a standard look and feel across eVision, significantly improving the product aesthetic and reducing the time and effort required to develop new web-based applications. Additionally, the upgrade enabled the development of an Applicant Portal, which relies on functionality only available in this latest version.

Senate Efficiency Review

The purpose of the Senate Efficiency Review (SER) is to deliver a programme of related projects to improve the digital student experience and related administration tools. The continuous improvement in student administration will ask efficiencies and enhancements to the student and staff experience within a culture of collegiate partnership and engagement.

During the academic year, the main projects developed and released were:

- A new workflow for submitting curriculum amendments and supplementary additions;
- Workflows aimed at amending student data when incidents change a student’s academic journey;
- Docman, a new student document management system storing supplementary documents against the student record;
- MySaint, a new student and staff portal, providing easy access to commonly used applications;
- Modules to facilitate the collection of buoyancy data, the allocation of awards and the reconciliation of financial data.

Business Intelligence

Supporting University Business and Beyond

In June 2016, we upgraded the Student Record System (SITS) to version 9.1.0. The upgrade included an overhauled eVision framework that is responsive to screen width and therefore now suitable for use on mobile devices.

It also enabled us to bring consistency to the brand and style of eVision itself. Previously there was a disparity between task-based content that had been customised to use the Digital Pattern Library responsive framework and the system-generated portal content. It is now far easier to achieve a standard look and feel across eVision, significantly improving the product aesthetic and reducing the time and effort required to develop new web-based applications.

Additionally, the upgrade enabled the development of an Applicant Portal, which relies on functionality only available in this latest version.

Student Information Desk

Since February 2016, we have provided a greater level of business support for Tribal’s Student Information Desk (SID) product suite, providing Service Units with analysis of business process requirements and work configuration. We want to enable the use of SID as part of the five processes and continue to provide a dedicated technical support to the SID programme to widen the adoption of SID across Schools and Service Units.

Through the facilitation of the University’s SID internal users group, we have a platform for staff to continually review the efficacy of the product and propose enhancements through dialogue with the software vendor (Tribal Education). To strengthen its partnership with Tribal, the group has participated in testing of new software iterations and provided a presentation on SID at Tribal’s annual conference.

We have also provided a programme of user training and created an institutional reference guide for user group members, to augment their knowledge of the product.

In June 2016, we upgraded the Student Record System (SITS) to version 9.1.0. The upgrade included an overhauled eVision framework that is responsive to screen width and therefore now suitable for use on mobile devices.

It also enabled us to bring consistency to the brand and style of eVision itself. Previously there was a disparity between task-based content that had been customised to use the Digital Pattern Library responsive framework and the system-generated portal content. It is now far easier to achieve a standard look and feel across eVision, significantly improving the product aesthetic and reducing the time and effort required to develop new web-based applications.

Additionally, the upgrade enabled the development of an Applicant Portal, which relies on functionality only available in this latest version.

Senate Efficiency Review

The purpose of the Senate Efficiency Review (SER) is to deliver a programme of related projects to improve the digital student experience and related administration tools. The continuous improvement in student administration will ask efficiencies and enhancements to the student and staff experience within a culture of collegiate partnership and engagement.

During the academic year, the main projects developed and released were:

- A new workflow for submitting curriculum amendments and supplementary additions;
- Workflows aimed at amending student data when incidents change a student’s academic journey;
- Docman, a new student document management system storing supplementary documents against the student record;
- MySaint, a new student and staff portal, providing easy access to commonly used applications;
- Modules to facilitate the collection of buoyancy data, the allocation of awards and the reconciliation of financial data.

Business Intelligence

Supporting University Business and Beyond

In June 2016, we upgraded the Student Record System (SITS) to version 9.1.0. The upgrade included an overhauled eVision framework that is responsive to screen width and therefore now suitable for use on mobile devices.

It also enabled us to bring consistency to the brand and style of eVision itself. Previously there was a disparity between task-based content that had been customised to use the Digital Pattern Library responsive framework and the system-generated portal content. It is now far easier to achieve a standard look and feel across eVision, significantly improving the product aesthetic and reducing the time and effort required to develop new web-based applications.

Additionally, the upgrade enabled the development of an Applicant Portal, which relies on functionality only available in this latest version.

Student Information Desk

Since February 2016, we have provided a greater level of business support for Tribal’s Student Information Desk (SID) product suite, providing Service Units with analysis of business process requirements and work configuration. We want to enable the use of SID as part of the five processes and continue to provide a dedicated technical support to the SID programme to widen the adoption of SID across Schools and Service Units.

Through the facilitation of the University’s SID internal users group, we have a platform for staff to continually review the efficacy of the product and propose enhancements through dialogue with the software vendor (Tribal Education). To strengthen its partnership with Tribal, the group has participated in testing of new software iterations and provided a presentation on SID at Tribal’s annual conference.

We have also provided a programme of user training and created an institutional reference guide for user group members, to augment their knowledge of the product.

In June 2016, we upgraded the Student Record System (SITS) to version 9.1.0. The upgrade included an overhauled eVision framework that is responsive to screen width and therefore now suitable for use on mobile devices.

It also enabled us to bring consistency to the brand and style of eVision itself. Previously there was a disparity between task-based content that had been customised to use the Digital Pattern Library responsive framework and the system-generated portal content. It is now far easier to achieve a standard look and feel across eVision, significantly improving the product aesthetic and reducing the time and effort required to develop new web-based applications.

Additionally, the upgrade enabled the development of an Applicant Portal, which relies on functionality only available in this latest version.

Senate Efficiency Review

The purpose of the Senate Efficiency Review (SER) is to deliver a programme of related projects to improve the digital student experience and related administration tools. The continuous improvement in student administration will ask efficiencies and enhancements to the student and staff experience within a culture of collegiate partnership and engagement.

During the academic year, the main projects developed and released were:

- A new workflow for submitting curriculum amendments and supplementary additions;
- Workflows aimed at amending student data when incidents change a student’s academic journey;
- Docman, a new student document management system storing supplementary documents against the student record;
- MySaint, a new student and staff portal, providing easy access to commonly used applications;
- Modules to facilitate the collection of buoyancy data, the allocation of awards and the reconciliation of financial data.

Supporting University Business and Beyond

In June 2016, we upgraded the Student Record System (SITS) to version 9.1.0. The upgrade included an overhauled eVision framework that is responsive to screen width and therefore now suitable for use on mobile devices.

It also enabled us to bring consistency to the brand and style of eVision itself. Previously there was a disparity between task-based content that had been customised to use the Digital Pattern Library responsive framework and the system-generated portal content. It is now far easier to achieve a standard look and feel across eVision, significantly improving the product aesthetic and reducing the time and effort required to develop new web-based applications.

Additionally, the upgrade enabled the development of an Applicant Portal, which relies on functionality only available in this latest version.

Student Information Desk

Since February 2016, we have provided a greater level of business support for Tribal’s Student Information Desk (SID) product suite, providing Service Units with analysis of business process requirements and work configuration. We want to enable the use of SID as part of the five processes and continue to provide a dedicated technical support to the SID programme to widen the adoption of SID across Schools and Service Units.

Through the facilitation of the University’s SID internal users group, we have a platform for staff to continually review the efficacy of the product and propose enhancements through dialogue with the software vendor (Tribal Education). To strengthen its partnership with Tribal, the group has participated in testing of new software iterations and provided a presentation on SID at Tribal’s annual conference.

We have also provided a programme of user training and created an institutional reference guide for user group members, to augment their knowledge of the product.

In June 2016, we upgraded the Student Record System (SITS) to version 9.1.0. The upgrade included an overhauled eVision framework that is responsive to screen width and therefore now suitable for use on mobile devices.

It also enabled us to bring consistency to the brand and style of eVision itself. Previously there was a disparity between task-based content that had been customised to use the Digital Pattern Library responsive framework and the system-generated portal content. It is now far easier to achieve a standard look and feel across eVision, significantly improving the product aesthetic and reducing the time and effort required to develop new web-based applications.

Additionally, the upgrade enabled the development of an Applicant Portal, which relies on functionality only available in this latest version.

Senate Efficiency Review

The purpose of the Senate Efficiency Review (SER) is to deliver a programme of related projects to improve the digital student experience and related administration tools. The continuous improvement in student administration will ask efficiencies and enhancements to the student and staff experience within a culture of collegiate partnership and engagement.

During the academic year, the main projects developed and released were:

- A new workflow for submitting curriculum amendments and supplementary additions;
- Workflows aimed at amending student data when incidents change a student’s academic journey;
- Docman, a new student document management system storing supplementary documents against the student record;
- MySaint, a new student and staff portal, providing easy access to commonly used applications;
- Modules to facilitate the collection of buoyancy data, the allocation of awards and the reconciliation of financial data.
Wireless Town & BID

Establishment of the Business Improvement District (BID)

In 2015, the town of St Andrews officially became a Business Improvement District (BID). This involves businesses working together and investing collectively in local improvements, in addition to those delivered by the statutory authorities. These improvements should benefit the businesses involved whilst adding to those delivered by the statutory authorities. These improvements should benefit the businesses involved whilst contributing to the wider aspirations of the local residential community and contribute to growing the local economy.

As a significant employer and part of the town community, the University has a key role and significant contribution to make. We have been working with the BID team to explore the delivery of a ‘wireless town’ and ran a successful pilot scheme during 2015-16. For the University, this would greatly benefit the thousands of prospective students (and their parents) who come to St Andrews on visiting days, as well as current staff and students, in areas where our own wireless service does not reach.

Improvements should benefit the businesses involved whilst adding to those delivered by the statutory authorities. These improvements should benefit the businesses involved whilst contributing to the wider aspirations of the local residential community and contribute to growing the local economy.

Professional Services Relocation

Approximately 300 Professional Services Unit staff are responsible for Eden Campus in 2016-2018. We will play a significant role in ensuring services are in place to support the new and much of the infrastructure planning is well underway.

As part of our Professional Services Relocation (PSR) project we have developed an engagement plan. In March 2016, the PSR phase was to move with Professional Services Unit management teams to:

- Understand how colleagues currently work from an IT perspective, e.g. are the majority of the team desk-based, do they have a lot of meetings or do they travel extensively;
- Understand how staff think the move will impact them and their teams and discover their requirements for Eden Campus;
- Discuss the current use of Office 365 collaboration tools, such as OneDrive for Business and Skype for Business;
- Discuss how teams may work in the future and explore how technology can assist this.

The workshop saw us demonstrate all forms of delivery moving to Eden Campus. During these interactive sessions, we discussed:

- Proposed individual equipment on desks in Eden Campus;
- Technology to facilitate a more agile / flexible working environment;
- Understanding how to make technology in meeting rooms to support greater collaboration / communication.

New Staff Start Process

We worked with colleagues in HR to streamline the process for new members of staff internally, accurately and inform them as to the one location – HR at the Old Burgh School. Much of this work, including ICT card production, is being done prior to the new staff’s first day, creating a smoother experience for everyone.

Application Development

Our Application Development team ensure we provide creative and intuitive software application design to support the ever growing need for information management throughout the University. Their expertise plays a key role in the development of university wide business applications using innovative development tools and manage their implementation to offer seamless integration between various software platforms at an institutional level.

Research and Technology Services Annual Report (September 2015 - August 2016)

Supporting University Business and Beyond

Services and support much more straightforward;

- Fulfil the requirements of their role;
- Free up time of technical staff – allowing them to better support their organisational teams;
- Much improved financial management and administration;
- ICT Purchasing staff can secure better deals through purchasing from frameworks and approved suppliers;
- An experienced ICT purchasing team, who can provide advice and guidance about the best products and services;
- A move towards streaming licensing, rather than local / individual site licenses (where appropriate).

ICT Purchasing

Over the course of the last few years, there has been a focused effort to divert ICT purchasing away from IT staff, and with this comes our dedicated ICT purchasing team.

This has a number of benefits:

- Fewer hours of technical staff – allowing them to better support their organisational teams;
- ICT Purchasing staff can secure better deals through purchasing from frameworks and approved suppliers;
- An experienced ICT purchasing team, who can provide advice and guidance about the best products and services;
- A move towards streaming licensing, rather than local / individual site licences (where appropriate);
- Standardisation of ICT equipment, which makes providing services and support much more straightforward;
- Much improved financial management and administration;
- Significantly reduces the number of ad hoc purchases with much of the University’s ICT purchasing now done centrally, which avoids missed opportunities.

The ICT purchasing team have also been involved with the following:

- A review of the current management of the ICT Catalogue, including the review of processes and service levels;
- A project to standardise and improve our work further on identifying ICT expenditure by Service Unit where this is feasible and useful, providing new and enhanced functionality, this enables us to support and refine our database and our services and support.

The graphic shows the almost 80% of ICT Purchasing business is now done from our dedicated ICT purchasing team.

Finance System Support/ Administration

We worked with Finance colleagues to make a major upgrade to the Financial Management System (IFPS) to version 12. In addition to providing new and enhanced functionality, this enabled us to upgrade our database and our services and support.

We also configured the ITSF student finance module, SAM, to work with the new configuration of the Fund Manager Module. Finally, we implemented the Accounts Payable invoice file for import to IFPS, making the payment system much more efficient, resulting in a 90% performance improvement using VPN and 50% improvement in site.

In conjunction with Finance and Procurement, work began to rationalise ICT expenditure in the following:

- The ICT purchasing team have also been involved with the following:
- A review of the current management of the ICT Catalogue, including the review of processes and service levels;
- A move towards streaming licensing, rather than local / individual site licences (where appropriate);
- Standardisation of ICT equipment, which makes providing services and support much more straightforward;
- Much improved financial management and administration;
- Significantly reduces the number of ad hoc purchases with much of the University’s ICT purchasing now done centrally, which avoids missed opportunities.

The ICT Purchasing team have also been involved with the following:

- A review of the current management of the ICT Catalogue, including the review of processes and service levels;
- A move towards streaming licensing, rather than local / individual site licences (where appropriate);
- Standardisation of ICT equipment, which makes providing services and support much more straightforward;
- Much improved financial management and administration;
- Significantly reduces the number of ad hoc purchases with much of the University’s ICT purchasing now done centrally, which avoids missed opportunities.
Data Centre Core Network Migration

To improve the connectivity of our Data Centre and respond to the increased demand of networking, we have consolidated the services offered on our Silk and Cisco system platforms, and continue the allocation of services from University locations. The existing core switches were procured in 2010 to part of the initial fit-out of the Data Centre Building on the foundation of the University’s core network refresh to 40G, and we also decided to upgrade the core switching devices to 40G. This underpins the provision of storage and computer services, and allows scalable bandwidth to be provided to numerous services such as HPC. We also saved the links from 10G to 40G in the future.

Unified Computing System

We have migrated from discrete server clusters to an integrated infrastructure platform known as the Unified Computing System (UCS). This system allows us to expand our infrastructure in a centrally managed fashion, and to expand as required without undertaking major infrastructural work each time.

Storage Area Network Upgrade

We have increased the storage on our original Dell Compellent storage server. Storage is arranged in ‘tiers’ with the Tier1 offering the highest access speed. Our Tier1 had been at capacity for some time and the system as a whole was trending towards capacity within six months. Increasing the Tier1 storage from 178 to 38TB has resulted in a noticeable improvement in database clusters and given us spare capacity to database clusters and given us spare capacity to use in the future for new projects.

Information Governance

The volume and complexity of requests which require a response under the Freedom of Information (Scotland) Act 2002 and the Environmental Information (Scotland) Regulations 2004 continues to grow, with an increase over the previous reporting period. The University has continued to meet our Information Commissioner’s targets with 99% of Stage 1 information requests received in response, within the 20-working day period.

Eighteen stage two complaints were received and processed:

• Seven internal reviews were completed – this is where a sequence of events that are unhappy with how the University has managed their information request. In each instance, the independent reviewer found that all of the requests were managed correctly and the original decisions stood. Regrettably no internal review was unable to have a reasonable expectation of how the information request was managed; they can then apply to the Scottish Information Commissioner for a decision. In the last academic year, no decisions against the University were received by the Scottish Information Commissioner.

Processing these requests involves a large amount of work and without the good support from colleagues and third parties, it would be impossible for us to do so within the required timescales.

We have started planning for and working towards securing the changes required to improve the University for revisions to the General Data Protection Regulation (GDPR) that will come into force on May 2018, when the General Data Protection Regulation ("the GDPR") comes into force.

Institutional Complaints

We have been meeting with our suppliers and colleagues to discuss standardisation of access control across the University. These discussions were positive, with proposals now in place to standardise approaches with new builds.

Records Management

We worked closely with colleagues in Special Collections to develop an access management programme. This programme will set out the key steps for the University to improve the management of information throughout its lifecycle.
In February 2016, a new IT Security Officer joined the University. This has given a bigger focus to IT Security and several enhancements have been made since then.

The first step was to create central points of contact, both internally and externally. This means that if members of the University receive an email they are worried might be phishing, they can send it to phishing@st-andrews.ac.uk to report it.

There is also the St Andrews Computer Security Incident Response Team (CSIRT) which acts as the first line of contact (and response) to security incidents at the University. It has contacted other CSIRT teams across the world and are well placed to identify new attacks and trends.

Due to the volatility of security threats, we decided to expand our IT Security Service into three strands:

- Information Security: considering policies and guidance;
- Incident Response: managing response to incidents, lost accounts and investigations with an electronic element;
- Vulnerability Management: looks into scanning and testing for weaknesses as well as new issues which are coming out.

Compromised Accounts

With the increasing number of cyber attacks occurring each day, we have noticed a number of compromised accounts in much more detail and have observed that most compromised accounts come from one or maybe two attacks each month. We have introduced the following measures to address this compromised:

- Faster identification of accounts which have been compromised;
- Training for staff members whose accounts have been compromised;
- Presentations to students and staff around phishing techniques and how to spot them;
- Appllying more resources to identifying and blocking suspicious emails.

Encryption

To support the University’s policy on the protection of personal data and critical information held on mobile devices, we provide a service that encrypts mobile devices and, where required, ensures encryption recovery keys are securely stored.

In 2015-16 we changed to using BitLocker to encrypt all new Microsoft Windows devices and we have been working, with Schools and Service Units to ensure existing Windows laptops that are either unencrypted or encrypted using older software, are retrospectively configured to use BitLocker.

Feedback on the new software has been positive, with negligible performance degradation reported following encryption. There has been no change to the encryption of Apple Mac OS X devices.

Security Enhancements

IT Security

Compromised Accounts

Encryption

Engagement

Staff in IT Services continue to proactively engage with the University community to ensure we understand business needs. We work in collaboration with Schools, Units and students to identify ways to improve our services.

For key events in the University calendar, such as annual weekend and matriculation, we work closely with colleagues and the University to identify new and returning students have access to the best possible support and services.

Our Staff

We are committed to the development of our staff and provide a wide range of opportunities for them to develop new skills, understanding and qualifications, appropriate to their roles. Training and development objectives are set out in our annual ‘Review and Development’ process, which all IT Services staff participate in. Staff are encouraged to attend relevant training courses, attend specialist specific conferences and events and visit other organisations. All IT Services staff are given the opportunity to undertake the Information Technology Infrastructure Library (ITIL) Foundation certificate in Service Management and all supervisory staff participate in the University’s ‘Passport to Management’ scheme.
In 2015-2016, we continued to proactively engage with other higher education institutions to share knowledge, expertise and best practice. We have established relationships with many IT organisations, who work closely with us to identify technology solutions. Many of these organisations have provided opportunities for our IT Apprentices to visit, which is greatly appreciated.

Since achieving the Service Desk Institute’s four-star service desk certification in 2014 (the highest accreditation achieved by any university in the world), it has prompted interest from other organisations around the UK. We have enjoyed meeting a wide variety of Service Operations staff, and sharing our journey to Service Desk certification with them.

We also represent the sector on a number of Scottish Government Boards (such as the Technical and Design Board) and have members of staff on various higher education groups (such as the Higher Education Information Directors Scotland (HEIDS), Universities and Colleges Shared Services (UCSS), and UniDesk).

A group of students from Dundee and Angus Colleges computer networking course visited St Andrews for an event hosted by the CIO, Steve Watt.

We have established relationships with many IT organisations, who work closely with us to identify technology solutions. Many of these organisations have provided opportunities for our IT Apprentices to visit, which is greatly appreciated.

Since achieving the Service Desk Institute’s four-star service desk certification in 2014 (the highest accreditation achieved by any university in the world, this prompted interest from other organisations around the UK. We have enjoyed meeting a wide variety of Service Operations staff, and sharing our journey to Service Desk certification with them.

We also represent the sector on a number of Scottish Government Boards (such as the Technical and Design Board) and have members of staff on various higher education groups (such as the Higher Education Information Directors Scotland (HEIDS), Universities and Colleges Shared Services (UCSS), and UniDesk).

A group of students from Dundee and Angus Colleges computer networking course visited St Andrews for an event hosted by the CIO, Steve Watt.

In 2015-2016, we continued to proactively engage with other higher education institutions to share knowledge, expertise and best practice. We have established relationships with many IT organisations, who work closely with us to identify technology solutions. Many of these organisations have provided opportunities for our IT Apprentices to visit, which is greatly appreciated.

Since achieving the Service Desk Institute’s four-star service desk certification in 2014 (the highest accreditation achieved by any university in the world), it has prompted interest from other organisations around the UK. We have enjoyed meeting a wide variety of Service Operations staff, and sharing our journey to Service Desk certification with them.

We also represent the sector on a number of Scottish Government Boards (such as the Technical and Design Board) and have members of staff on various higher education groups (such as the Higher Education Information Directors Scotland (HEIDS), Universities and Colleges Shared Services (UCSS), and UniDesk).

A group of students from Dundee and Angus Colleges computer networking course visited St Andrews for an event hosted by the CIO, Steve Watt.

In 2015-2016, we continued to proactively engage with other higher education institutions to share knowledge, expertise and best practice. We have established relationships with many IT organisations, who work closely with us to identify technology solutions. Many of these organisations have provided opportunities for our IT Apprentices to visit, which is greatly appreciated.

Since achieving the Service Desk Institute’s four-star service desk certification in 2014 (the highest accreditation achieved by any university in the world), it has prompted interest from other organisations around the UK. We have enjoyed meeting a wide variety of Service Operations staff, and sharing our journey to Service Desk certification with them.

We also represent the sector on a number of Scottish Government Boards (such as the Technical and Design Board) and have members of staff on various higher education groups (such as the Higher Education Information Directors Scotland (HEIDS), Universities and Colleges Shared Services (UCSS), and UniDesk).

A group of students from Dundee and Angus Colleges computer networking course visited St Andrews for an event hosted by the CIO, Steve Watt.
The University of St Andrews has strong ties with Zambia and a long history of charity and development work in the country. Each summer, as part of two Volunteer Zambia projects, staff and students from the University travel to Zambia to undertake sports coaching, teaching and development work in local communities. Working with our partner, Ross Cockburn of Reuseit.org, we have been able to provide much needed IT kit to the University’s two Zambia projects through the provision of laptops.

As part of the Zambian national curriculum, all pupils at Kazemba must learn computer studies and pass an exam in this subject in order to progress to high school. The school only had two old laptops for the entire cohort, including one donated by the University a few years ago. Over the past couple of years, laptops were taken out to Zambia to support schools in Lusaka and Kazemba School in the Chongwe region to enhance learning and teaching.

### Facts and Figures

<table>
<thead>
<tr>
<th>IT Service Desk Statistics</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of calls</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Average monthly calls</strong></td>
<td>4,649 calls per month during 2015-2016.</td>
</tr>
<tr>
<td><strong>One Minute Survey results</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Average satisfaction</strong></td>
<td>97.6% satisfaction (95% or above)</td>
</tr>
</tbody>
</table>

**How people got in touch**

- **Email**: 68%
- **Telephone**: 10%
- **Web form**: 9%
- **IT Self Service**: 4%
- **In person**: 10%

**One Minute Survey results**

- **Average satisfaction**: 97.6%
- **Target 95% or above**

Generally, we find that people who log a call with us, are asked to complete our One Minute Survey when the call is closed. We’re delighted that 97.6% of survey respondents were happy with the service we provided in 2015-2016.

### Facts and Figures

#### Number of calls

- **2015-2016**: 4,649 calls per month

#### One Minute Survey results

- **Average satisfaction**: 97.6% satisfaction (95% or above)
- **Target 95% or above**

### How people got in touch

- **Email**: 68%
- **Telephone**: 10%
- **Web form**: 9%
- **IT Self Service**: 4%
- **In person**: 10%

**One Minute Survey results**

- **Average satisfaction**: 97.6%
- **Target 95% or above**
National Student Survey IT Results 2016

The National Student Survey (NSS) is an annual survey of all final year undergraduate degree students at institutions in the UK. NSS is conducted by Ipsos MORI on behalf of the UK higher education funding bodies to gather opinions from students, asking 27 questions, relating to eight aspects of the learning experience at university. Question 17 relates to IT and asks students to rate the ability to access IT resources when required. We have managed to keep our score above the national median for three consecutive years.

NSS: Q7

<table>
<thead>
<tr>
<th>2016</th>
<th>2015</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>95%</td>
<td>91%</td>
<td>93%</td>
</tr>
</tbody>
</table>

St Andrews

National median

<table>
<thead>
<tr>
<th>2016</th>
<th>2015</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>91%</td>
<td>90%</td>
<td>89%</td>
</tr>
</tbody>
</table>

Ranking

| 3rd  | 29th | 8th  |

178 institutions participated in 2016.