ISC11D014

ISD Programme of Work 2010/11 – May 2011

Project reports

Improving the Physical Environment	
TV Studio refurbishment	The planned refurbishment of the TV Studio has been deferred to 2011/12. ISD continues to work with FTV and HUM to review next year's requirements and this work is now being project managed by Eva Roberts, Educational Technologist based in the Telecommunications Suite (which replaces AVS).
Tender for AVS managed service	Given the changes that have taken place as part of the Administrative Integration Project, work on the AVS managed service for whole life support arrangements, for lecture room support and related solutions has been deferred to 2011/12. In the meantime the National and SUPC regional framework allows for the number one selected supplier from the framework evaluation process to be appointed as preferred supplier for the time being.
Supporting Research	
Development of Research computing support services	Installation of the new Viglen High Performance Computing cluster facility finished in Oct 2010. After performance and site acceptance testing the new cluster, named Grace after female IT pioneer Grace Hopper, ran as a pilot service before becoming the primary HPC resource for the research community. As well as providing researchers with a significant increase in performance hardware and interconnect, new features have been introduced such as GPU technology, advanced and more intelligent job scheduling. As well as the new HPC facility, further new hardware facilities were introduced including a Linux login service and in August a pilot Subversion and Trac service, which has a growing number of repositories from a number of research groups across SCI. Research and Specialist Computing Support also invested in software for the research community including Matlab base and toolbox licenses and Linux campus license for SAS. An outreach event for Arts, Humanities and Social Sciences was held in December 2010 which demonstrated some examples of usage from Economics and Medical departments. A seminar for researchers from UEA and NRP was held in May 2011 with experts from the Numerical Algorithm Group visiting UEA, presenting and demonstrating new libraries. Further outreach events were held throughout the year including presentations on code optimisation in May and an introduction to the new HPC facility in August. The Research and Specialist Computing Support team ran courses on the use of the High Performance Computing cluster for the Science Faculty Personal and

	Professional Development PGR programme in December 2010 and February 2011. Further courses are scheduled for December 2011 and February 2012. Efforts are underway to migrate HPC wiki pages to new Liferay service, plus introduce further resources for RSCS users. From August, as part of the academic integration project, Research and Specialist Computing Support took on responsibility for a number of new support services for UEA: Linux desktop and server support; the development of a standardised secure Linux desktop available to the UEA research community; and software and control system development. Supporting these new responsibilities are new members of staff to ISD: Mike Salmon (Linux support) , Alex Etchells (software development) and Julie Harold (Linux support and HPC). A further post is currently being recruited.
Development of a Virtual Research Environment (VRE)	Publication Database • EPrints was set up replacing Digitool as the institutional research publications repository • 21,000 records from a variety of historic publications databases were imported into EPrints • Policy was approved mandating deposit of publication data, but not full text • EPrints is live with all Faculties R-Plan • A new system, R-Plan, was developed to enable research staff to write their research plans • R-Plan was live early in 2011 and picked up by Faculties at various points • R-Plan links directly with PMA and EPrints to draw in data stored in those systems • Processes were established to report any data errors MyIP • This tool is used to record intellectual property. It was moved from MS Access to SQL Server to improve reporting and integration with other systems
Managing Research Publications	The Faculty of Health initiated the migration from Faculty-owned publications databases to EPrints in January 2011. By June 2011 all Schools and Faculties were using EPrints as the central database for the central storage of metadata records for all UEA publications. EPrints now contains over 21,000 records including 1,124 records with full text. Faculty Librarians ran sessions for academics to introduce them to the new publications database early in the New Year. FAQs were regularly updated throughout the year to provide guidance for academics and administrators.

	We were unsuccessful in a bid in May 2011 for a Repository Manager with the result that we are unable to resource mediated management of full text deposit. However the Library continues to run a limited advisory service for full text deposit, with academics doing their own uploads and checking their own copyright clearance. Following the move to the new structures, we have agreed the parameters of responsibility for EPrints with REN. REN will own and administer the publications data on behalf of Schools and Faculties and they continue to add publications data to EPrints. The Library will continue to own EPrints as a service, liaising internally with ITCS and externally with 'EPrints Services'. The Library along with ITCS will provide administrative and technical support for bulk changes to data. Strategic decisions relating to the development of EPrints will continue to be made at the ISD Research Board. Appropriate staff from the Library, ITCS and REN will meet regularly to ensure a joined up approach to the development of EPrints.
Review of collaboration tools	As part of a wider review of research websites a review was undertaken of collaboration tools. This review covers several key web based collaborative tools but does not cover the full suite of tools that we may need. In addition a review was undertaken of Blackboard collaboration tools (Elluminate) and proposals for wider use have been put forward. We have extended the licences of this project.
Supporting Education	
Review of VLE provision	A full review of Virtual Learning Environment (VLE) provision at UEA had been planned. In advance of this review, and in response to the changing environment, the Web Team assessed the technical aspects of current Blackboard VLE provision, investigated alternatives, and explored routes for possible migration to new systems. In light of this review we recommended to the ISD Education Board that we upgrade the Blackboard Teaching System (VLE) from v8 to v.9.1. The upgrade to the Blackboard Teaching System was successfully completed over the summer. Given workloads we are not, at this stage, intending to replace the Portal.
Review of the impact of technology on teaching	The ISD Education Board held a facilitated session in the i-Lab to explore ideas for the development of technology to assist teaching and learning. The output from this session has been combined with work undertaken as part of the review of the University's Teaching and Learning Strategy to produce a comprehensive programme of work to support these activities.
Video and Audio Streaming	The Helix Media Library Server was implemented and this enables staff to upload video and audio recordings for embedding in web and Blackboard pages and stream these over the web in support of teaching, research or enterprise and engagement activity. A software upgrade to

	enable restricted hosted content to be limited to specific users has been installed and configuration changes are being made.
Roll out of Lecture Capture	The further roll out of lecture capture to centrally bookable teaching rooms has been deferred until 2011/12.
Supporting Enterprise and Engagement	
UEA Alumni Archives project	This project is on hold pending funding.
Supporting UEA Business Processes	
Administrative Integration Project (IT Strand)	The new support structures were implemented on 1st August. Steve Jackman joins UEA from Broadland District Council as Assistant Director for Faculty IT Support. Steve has overall responsibility for the provision of local IT Support, the IT Helpdesks, UEA Print Services and Learning Technology Development. All of the management posts in the structure are now appointed but there remain a number of technician vacancies in the new structure which are currently being recruited.
SITS Project	The PGT/PGR application form changes have been completed and are currently in the testing phase, prior to being put live. Tribal have developed a module which allows applications to be passed between different groups of staff via e:Vision. In addition, tasks can be built to support the paperless process and remove the need for administrators to work between the client and e:Vision. A demonstration of this paperless application module was given to MAS, and a small number of users from the expert group, and was well received. At the request of Mark Barlow, Director of University Services, the Paperless Applications process go-live date has been moved to January 2012, from the original date of September 2011. This is to allow additional time for Admissions to review processes and build the specification. A large number of changes have been made to the timetabling interface prior to users inputting the information for 2011/12 academic year. These include automatic update of students' timetables when new events are added, error traps when users try to amend the time or date of an event where a central room is attached and an error trap for school room or staff clashes when an existing event has its time or date amended. The addition of the ability for users to request a central room from within the event screens in e:Vision, after the automatic room scheduling process has taken place. Printable timetables for students and staff. And finally, developments to the attendance monitoring tasks to make it easier for users to select the correct event and to amend attendance data once input. SWP, MED, PHA, CIPP, AHP and PGR PPD areas have been working closely with the SITS Project Team to agree methods for them to have online timetables for the 2011/12 academic year. This work is complete and these areas are currently working on

	creating the relevant records in SITS.

Changes have been completed to the online application processes that allow applicants to select either London or Norwich.

A major upgrade from 8.3.1 to 8.4.0 was undertaken over the summer. After significant planning and testing this upgrade was undertaken with minimal impact on the user base.

The conversion to 64 bit servers has been completed, which is required for Oracle to be upgraded to version 11g.

PGR error checks have now been completed and is live. This involved the creation of error checks to improve data quality, in preparation for the REF return.

Work was undertaken to re-design the Advanced Registration tasks to improve the process for students and reduce issues. This included reviewing photo upload and password setting process and ensuring these were embedded into the SITS process. A very successful start of year was testament to the improvements that were made – with a high percentage of students undertaking the process before arriving at UEA

Work to enable data relating to disabilities to be added to SITS has been completed. DOS are now in the process of inputting data. This is an essential task as part of the move to electronic submission of course work.

A system to enable online creation of coursework cover sheets and electronic upload of course work has been developed. The system is live for the 2011/12 academic year with pilot modules being selected for week 6/7 submission.

A restructure within CIS has enabled the SIS development and analysis teams to be merged. This has resulted in much better team join up and faster development times. A recent implementation of additional e:Vision screens for Advisors to see applicant details was specified, developed and delivered in under a week. |
| Finance Systems improvement project | A review of Finance system requirements has been completed and the report is currently being reviewed by the Finance Division |
| Campus Card Replacement | Proximity enabled campus cards have been produced to replace existing cards, the majority of which have now been collected and all campus cards are now proximity enabled by default. |
| Review of ICT support for space management | A series of meetings has been held with the Estates Space manager to understand issues with the current system. Some remedial work has been undertaken – including developing a method to import space survey data in Estates systems.

Estates have selected a new product (MICAD) to be used for Asbestos management. The application is hosted offsite, CIS have been involved |

	in ensuring the specification of data feeds.
Voice Over IP	The Administrative Integration Project created a considerable volume of work in a short period but the system coped well with the demands placed upon it. EFRY and CAP were completed and REG was brought forward to assist in ease of migration at the end of the summer.
Ensuring Service Availability	
ICT Security Project	This project was initiated and set up with work grouped into the following areas: Policy and Strategy Changes • One-off audits took place with follow-on actions completed • Changes to GISP and password controls have been completed • Updated policies on Anti-Malware controls, Encryption and Information Classification and Data have been completed • A 3 year agreement was made with 7safe for annual security audits System and Server Changes • Work was completed on the removal of accounts on PCs and servers that provide high levels of access (root/admin) on UNIX machines only within the central divisions. Data Security Changes • A mobile device security pilot was successfully completed using secure email services on mobile phones. Work is now progressing to roll this out to all University staff. • A secure equipment and media disposal service has been created and will soon be advertised to all staff. Email Changes • Email archiving was piloted with a group in ITCS. This is now on hold pending an improvement to the software which will enable the product to meet data retention policies. • Students have now been successfully migrated from UNIX mail services to Exchange. Staff migration away from UNIX and into Exchange will commence in November 2011. Server Changes • Investigations have started into ports that are open on servers and closing inappropriate ones. Central divisions have been completed. Desktop Changes • Work is progressing to identify any PCs/Servers using the old Anti-Virus software and to migrate them to the new version. Networking Changes: • Work is ongoing with the replacement of the DNS/DHCP and creation of network segmentation

	Research Support Changes: • A checklist covering IT aspects of research grants has been approved and REN are now looking at incorporating this into their processes. Corporate System Changes: • Attempts to login to web services such as SPOT now have a generic message for incorrect usernames or passwords that are entered. • Audits to identify use of anonymous LDAP have been completed within corporate systems. All services found have been disabled or re-configured to remove the anonymous connections. • Secure windows shares used by corporate systems to only allow access from a pre-defined list of users. Access rights for all users have now been defined and implemented.

Administrative Integration Project	ISD successfully completed a programme of work throughout the summer to support the changes needed for the Administrative Integration Project. Over 1350 staff were moved between July and September with only minor issues reported. One area that did suffer from delays was in the re-commissioning of centrally bookable rooms. This was caused by the company creating the new floor for Chancellors Drive Annex filing for bankruptcy. The delay in delivery caused a knock on effect of delays to estates work and subsequently to the installation of AV and IT equipment. This has caused teaching events which were planned to take place in these rooms to be moved for the first week of teaching.
	
	Work undertaken by ISD include:
	
	Telephony changes:
	
	    • Updating Telephony system with new extension numbers and locations of staff.
	
	    • Updating Telephony system with recharge codes for new departments.
	
	    • Move all users affected by AIP to VoIP phones.
	
	    • Configuration of phones with changes to Hunt Groups, Call Pickups and Call Forwarding.
	
	    • Creation of new telephone book (including new structures).
	
	Supporting the movement of people:
	
	    • Assisting estates with the design and installation of network infrastructure within the new hubs.
	
	    • Procurement and movement of new Multi-Functional Devices within HUB areas.
	
	    • Movement, setup, testing and configuration of all IT equipment moved with individuals.
	
	    • Ordering and installation of new IT equipment for HUB reception areas.

	• Provision of IT Support in New Structures.
	• Revision of "Approval lists" to systems and services.
	• Re-issue of Staff Campus Cards.
	• Updating of access control system to allow staff to access areas/offices in their new locations.
	• Provision of Fax lines in new locations.
	• Provision of network printing in new locations.
	• Provision of network file shares for new departments.
	• Installation of software needed for people in new roles.
	• Recycling and disposal of redundant IT equipment.
	• Creation of new Generic Mailboxes (e.g. new admissions email addresses).
	Background changes:
	• Adding new departmental names to corporate systems, telephony, AD, and identity management systems).
	• Changes to mailing lists
	• Changes to access rights within corporate systems and provision of training where needed.
	• Changes to AD/DNS to reflect new support structures.
	Centrally Bookable Room changes:
	• Decommissioning of rooms and removal of IT/AV equipment for rooms which have changed use or needed building works to be completed.
	• Assist estates and Snellings with the design and installation of IT/AV equipment into new Centrally Bookable Rooms.
	• Update Room bookings with revised room specifications.
ITIL implementation	Work on ITIL implementation was put on hold due to the long term illness of the member of staff leading the project. The work on the service catalogue development has progressed well and has been useful in supporting a review of our disaster recovery plans.
Enterprise Service Desk implementation	The implementation phase of ESD is now complete and all helpdesk calls received are now logged on this system and customers receive an acknowledgement, first response or solution within 8 hours. Operational responsibility for the system now lies with the IT Helpdesk Manager under the new Faculty IT Support team. It is anticipated that the next phase will see rollout to more technicians and a trial of self-logging. This would give customers the ability to log their IT issues via a link from the Portal (under the Help & Advice tab) and will provide another means of reporting faults/problems, in addition to email, phone and face-to-face reporting.

Costing services	A proposal to introduce greater granularity in ISD budgets has been developed and implemented, this allows more detailed information on service costs. As part of this work we have also restructured ISD budgets to support the new management structures introduced as part of the Administrative Integration Project.
Development of a 5 year ICT Systems Strategy	This work has been completed and a proposal will be considered by ISSC.
Development of a 5 year Network Strategy	This work has been completed and a proposal will be considered by ISSC.
Server Virtualisation Project	This project is looking to evaluate the way that UEA utilises virtualisation and enable the phased migration of appropriate services in a cost effective manner.

A detailed Return on investment (ROI) proposal was developed which surprisingly demonstrated that server virtualisation at UEA did not provide any IT hardware or power savings compared with a non-virtual server environment. The current use of highly efficient blade servers minimises server hardware savings which are out-weighed by the increased storage requirements. However server virtualisation does reduce the resource required for server deployment and provides additional resilience. As such this project will continue with the focus on the additional value being provided rather than a ROI.

New server hardware and the necessary licenses have now been purchased, built and installed in order that implementation can progress. The processes for supporting, implementing and migrating servers are now in the process of being documented. At present our focus is on migrating the existing pilot hardware, that runs a small number of faculty print servers, and providing new virtual servers to support the Student email migration and Staff email archiving solution. We will need to work with Faculty IT Support Managers during the migration of their servers including discussions around meeting the costs of continuing to support the running of these servers.

Investigations into the methods for presenting storage have been undertaken in conjunction with a VMware and storage consultant and our storage partner Tectrade. The outcome of this process has resulted in ISD seeking appropriate quotes for the commonly adopted solution of NetApp/IBM NSeries filer gateways presenting the storage to VMware. Widely adopted by industry this solution allows us to mirror data provided to the virtual hosts across both of our data centres ensuring that critical services can continue to run in the event of one data centre going offline. In the interim we will be using our existing filer gateways to provide storage. |
| Managed Print Services | Following the outcome of the live roll out of the Equitrac based Managed Print Service pilot from April to May 2011 in NBS accommodation in TPSC and SSF Faculty Administration in EDU, it was concluded that Equitrac should not be adopted as a tool for providing a Managed Print Service at UEA. This was owing to interoperability issues, the support overhead, and the costs associated with its implementation |

	and use. However it is anticipated that networked printing systems will be the norm for replacement systems across UEA, gradually replacing desktop provision which is relatively expensive and also less good for the environment.
Managed PC procurement	• The MSPCP project team created detailed statement of requirements document and completed a full tendering process for the supply of PC desktop and notebook computers • Responses to the SOR were received from Dell, Getech, Stone, and Viglen • The contract was awarded to Viglen on 22 November 2010 • The service was live from the beginning of January 2011 • Training was offered to all IT and finance staff who would be creating quotes and placing orders • Regular service review meetings were held with Viglen and are on-going • An IT equipment recycling service has been established utilising cages stored in a container in the Estates compound. IT staff have been briefed on the use of the service • The number of notebook computers supported was reviewed and reduced to ensure user needs are met and balanced against the support overheads of a wide choice
Records Management Policy Development Project	Records management • A high level records management policy was approved by ISSC at their June 2010 meeting • A draft proposal for the approach required for adoption of records management institutionally has been produced. This proposal covers the reasons behind the need for records management, how records management is expected to work, and points to what needs to be set up at the University to support its operation. • The Vice Chancellor signed an ICO undertaking on 10 December 2010 which includes the statement "The importance of good records management is embedded into the Universities information management processes, procedures and culture;" • HoDs commented on the proposal in May 2011 • An implementation plan is now being developed Research data management • A discussion paper on the requirements for a research data management policy was presented to the ISD Research Board in October 2010 • The IRB asked for a working group to look at the policy and its impact in more detail

	• The DCC (Digital Curation Centre) offered free consultation on RDM (Research Data Management) policy, tool, training and procedure. This is being followed up and the work will cross into next academic year
Reclassification Project	The highest impact work was completed by the end of July 2011 and the project is now closed. There remains some final, low impact clean-up of name and subject headings. As anticipated, this low level work is ongoing and will be completed over the next couple of years.
Journals review	A university-wide journals review was launched in February 2011 to better gauge the usage and value of individual journal titles and to inform 'scenario planning' for any potential future budget changes. This work took both a quantitative and qualitative approach. The bulk of the work was concluded by the end of May. The data we did receive from Schools which engaged in the process was very helpful in assessing the impact of specific titles. It has allowed us in some cases to replace the low use titles for other journal titles, which had been on waiting lists as 'one in one out' replacements. In some instances Schools have not provided qualitative data. In these instances it makes it more difficult for us to judge the value of the titles we provide. When it comes to any budget restructuring, it is likely that any initial cuts would be made to these low use titles, as we do not have the qualitative evidence that they should be retained. However, before then, we feel that we should try again to engage with those Schools that did not contribute to the exercise. Therefore between October and December 2011, we plan to liaise with Schools, initially by meeting with Heads of Schools, to begin the discussions on how best to obtain the qualitative data that we have not yet managed to yield.
Review of Acquisitions processes	A review of the library's approach to obtaining reading lists from academics and the subsequent ordering of core texts began in January 2011. We will be focussing in 2011/2012 on working with faculties to increase significantly the number of reading lists deposited with the Library and consulting on the benefits of a university wide mandate for reading lists from 2012/13. We have begun a thorough process review of acquisition processes to achieve a streamlined workflow to free up staff time to concentrate on other core activities and to ensure new books are on the shelves more quickly and available to users at point of need.

Service plans
The ISD Strategy 2008-13 identifies eleven keys areas or groupings for ISD service delivery; the table below summarises activity in each of these areas.

Library resource provision, including management of the physical and electronic collections and information skills training.	In February, the Library held a focus group with a range of library users. The aim was to investigate the searching behaviour and preferences of our current students. The culmination of this focus group was the launch in August 2011 of 'Primo OneSearch', the successor to Broadsearch. Primo OneSearch is a significant step forward, enabling users to search in 'one search' across resources held within the library as well as across full-text electronic journal articles. The expectation is that users will find relevant, high quality information more quickly. In addition, we have enhanced our search tools with the addition of the bX recommender service. Students will now be pointed to related articles which other users, making similar searches, have found useful, again leveraging maximum value from our existing collections.
	Throughout 2010/2011, we carried out a full review of our helpdesk referral processes. Jane Helgesen, our Information Skills Librarian, has spent a significant amount of time providing additional training for front-of-house colleagues on the resources available.
	Floor 01, which houses our main print journals, is now completely full. Through 2011, as part of our space management strategy, we reviewed print journal runs for relegation, focusing initially on JSTOR, IOP archives, Science Direct and Nature archives where electronic versions of the title are available in perpetuity. Over the summer of 2011, we liaised with the academic community via Library Reps and withdrew items held in the external store to make space for additional titles to be relegated from the Main library. Titles for relegation are based on criteria agreed in the relevant sections of the library's Collection Development Policy. The next stage of the work is to move titles from the main library to the external store. This will now be an ongoing process that will ensure that the library manages its space limitations effectively.
IT infrastructure in teaching spaces, including IT teaching areas, 24 hours IT area, self study spaces and AV services in lecture rooms.	All student accessible PCs have been migrated to Windows 7 64-bit. The problems with the Student Network printing service (Papercut) have been resolved. All Centrally Bookable lecture Rooms have also been migrated to Windows 7 64-bit.
	A successful upgrade to the Student Network printing service (Papercut and Webprint) was performed at the start of August to ensure UEA stays with the support matrix for this product.
	Only two packages were updated and deployed for the start of the new teaching year - Maple and ARCGIS.
	Support for the latest motherboards from our PC supplier Viglen and Toshiba were added to the SCCM deployment service. However,

support for the latter's network Reltek driver caused the SCCM deployment service to fail. Though the service was returned to working order further investigation is required to resolve the Reltek driver issue.

The addition for PC Availability screens has allowed students to find free PCs within 24 hour labs and bookable IT labs when they are not in use for teaching.

Between April and July of this year we implemented phase 1 of a two phase project to vault our TSM backup tapes to our second tape library in Data Centre 2. This phase has already significantly reduced the number of tapes being manually transported offsite and freed space in the fire safes. Once completed the need to manually transport tapes offsite will be removed and significantly reduce costs related to fire safes and eventually release space currently taken by them. Phase 2 is now in progress and is expected to be completed by the end of November.

Issues with Windows 7 recognising 'Previous Versions' on Central File Store have now been resolved. A number of NSeries configuration settings determine how this is presented and as such these settings have had to be applied carefully to ensure that functionality is not broken for non-Windows 7 clients.

Although preparation work was started on the restructuring of personal Central File Store this work didn't progress far enough due to the complexities of the task within the time allocated. As such this work has been deferred to next year and has been expanded to ensure that the current technical ceiling of 50GB file store quotas can be lifted. Once completed users will have a common location for documents and data across Windows, Linux and Mac OSX desktops. We intend on convening a small working group to ensure that redundant files related to decommissioned systems are also removed during this process. This work is likely to be disruptive during the summer vacation whilst the data is migrated.

Summer vacation saw the successful migration of the Student email service to an Exchange 2007 based solution hosted at UEA. Commencing in late June and reaching completion prior to the start of year approximately 19,000 mailboxes were migrated. The new service provides students with a 500MB mailbox quota and includes calendaring facilities and mobile access. Between late October and December the remaining staff and postgraduate researchers using the old Student email service will be migrated to the Staff Exchange service and the old service decommissioned. In turn POP and IMAP email protocols will be withdrawn from service to enhance the security of the service. Exceptions for the use of IMAP will be available where a strong case can be put forward.

Email mailing lists are now in the process of being migrated to

	Exchange. Once completed this will mean that all mailing lists will be provided by a common platform reducing support costs and management considerably. Once migrated, lists will be managed by the UEA Identity Management System and the existing Mailman and text-based list facilities will be decommissioned. The revised mailing lists will provide much more granular control over who can send to mailing lists and this will be implemented to ensure that only those that need to can send to lists. Work has now been completed to ensure our HP server infrastructure is within supported levels. This was a time consuming piece of work required downtime in a number of cases. This is an ongoing piece of work that must be undertaken at regular periods over the course of a year to ensure we maintain a robust service. As such ISD are in the process of defining 3-4 periods when preventative maintenance requiring downtime will occur.
Staff and student enquiry services, including IT helpdesks, Library helpdesk.	Use of the Library has increased year on year with almost 1.2 million visits to the building in 2010-11, this equates to a 10.9% increase in footfall. However utilisation of the building, as based on data collected on the SCONUL benchmarking headcount days, shows an even higher increase of 26.4%, perhaps indicating that users are spending longer in the building and making use of the wider range of study facilities available to them following the successful refurbishment of Floor 0 in summer 2010. We conducted the annual ISD User Survey in May and the results from this and other surveys such as the National Student Survey will be used to inform our plans and service developments in coming years. We have tried to be responsive to feedback from users and have made several changes to the booking system for individual and group study facilities since it was piloted in June 2010. Push button locks are now available on all study carrels; we have increased the number of daily bookable carrels and have made changes to the online booking system to make it more users friendly. Following the upgrade of the Library management system in July, we will shortly be implementing courtesy underdue notices for all users. This is something that has been requested by students in recent years. Our front line teams are now using two-way radios which allow them to be more effective in supporting users at their point of need. Staff at service points use the radios to contact a 'roving' member of staff who can be directed to where help is needed e.g. in locating an item on a reading floor, or helping to solve a problems with a photocopier or self-service equipment. We worked closely with colleagues in the new Learning & Teaching Service to ensure a smooth start of year and minimise demands on staff working in the new hubs. As a result of close cooperation with colleagues in DOS and Accommodation almost 2500 cards were distributed to students during arrivals weekend thus ensuring that by the afternoon of the first day of the new academic year the vast

	majority of new students had received their card and were then able to focus on their registration events and the start of their academic studies. The IT Helpdesk is now under the management of the new Faculty IT Support team within ISD which is focussed on providing the best possible IT support to colleagues across the university. However, the close working relationship with other front-line services such as Library Reception and Helpdesk will continue as we strive to provide a seamless support service for students and staff at the university.
IT infrastructure, including two computer suites providing resilient email, filestore, backup and authentication services.	The work of the Computer Suite team was severely impacted by two resignations in January and the secondment of the team leader to the helpdesk. Staff from other teams have been seconded to ensure rotas are covered, however despite best efforts by the seconded staff lack of direct experience means that the focus was on service continuity rather than planned projects and server/infrastructure installations. As of August 1st the Data Centre team has a full complement of staff with a contractor and maternity secondment filling in for two full time posts. The team is spending as much time as possible clearing the backlog of work that built up during the previous 6 months. It is expected to clear the backlog around November. This includes the decommissioning of servers. The team can then look forward to taking over day to day support for key services such as HPC, SAN storage and Virtual Servers. The major operation of replacing the UPS within Data Centre 1 has been completed over the Easter vacation with only a minimal amount of disruption to live services. The new UPS provides us with power resilience within the Data Centre which is a significant advance on our service infrastructure. It is also more energy efficient and will allow us to monitor power usage more closely. Metering of the newly installed electrical power infrastructure for Data Centre 1 is currently being optimised for monitoring and alarming with System Centre Operations Manager. Since completing the migration to a new TSM backup server the two original TSM servers have been now decommissioned. We will now be undertaking a rationalisation of TSM schedules to ease the administration of the system. In addition to this we will be starting phase 1 of a two phase project to vault our TSM backup tapes to our second tape library in Data Centre 2. Once completed the need to manually transport tapes offsite will be removed and significantly reduce costs related to fire safes and eventually release space currently taken by our fire safes. Phase 1 is expected to be completed by the end of July. Issues with Windows 7 recognising 'Previous Versions' on Central File Store still remain. A number of NSeries configuration settings determine how this is presented and as such these settings have to be applied carefully to ensure that functionality is not broken for

non-Windows 7 clients. Testing of these changes has now been completed and the intention is to enable these changes before the end of Easter vacation to ensure the disruption caused is kept to a minimum.

Preparation work has now started on the restructuring of personal Central File Store. Once completed users will have a common location for documents and data across Windows, Linux and Mac OSX desktops. We intend on convening a small working group to ensure that redundant files related to decommissioned systems are also removed during this process. The main work is due to be carried out during summer vacation with small amounts of downtime required.

Work has now started to make use of the additional NSeries cluster installed in our second data centre. The initial stages of this work have resulted in UEA Portal data being mirrored between both data centres to ensure that recovery time of this service is kept to a minimum. It is anticipated that this will assist with the upgrade of the portal over the summer vacation in the event that data recovery is required.

Since early January 2011 ITCS has been running a pilot of Microsoft Exchange message archiving software Quest Archive Manager. The software allows for items older than a pre-determined date to be moved from the Exchange mailbox to the Quest Archive Manager or deleted if required thereby reducing the size of the mailbox. We are currently working with Quest Software to ensure that the policies ISD put in place to support this service are sensible and meet both user and infrastructure requirements. Implementation across UEA is not expected until these policies have been ratified by ISSC.

Mobile synchronisation policies to secure mobile devices that synchronise email with the UEA Exchange service are now ready to implement. We are in the process of finalising communications to the community and compiling a time table for implementation.

On Wednesday 27th April an upgrade to our SPAM filtering software was applied to improve email filtering of SPAM and phishing emails. It is anticipated that once rate-limiting (limiting the volume of email a user can send over a defined period of time) is enabled the chances of UEA email services being blacklisted by external email providers will be reduced. This will not affect the majority of users but we will we will need to work with those who require the ability to send bulk-email to ensure that we are not impacting on service.

In addition to the above upgrade we enhanced the security of our WebMail login page towards the end of Easter vacation by implementing a CAPTCHA for users accessing WebMail off campus. It is anticipated that this will significantly reduce the impact of the automated use of compromised accounts after a successful phishing

	attack and has been implemented in conjunction with the Phishing fortnight campaign.
	Migration of the Student email service to an Exchange 2007 based solution hosted at UEA has taken place over the summer vacation. The migration is currently being planned, commencing in late June, targeting completion by the end of July. The new service will provide students with a 500MB mailbox quota and include calendaring facilities and mobile access. Once completed the remaining staff and postgraduate researchers using this service will be migrated to the Staff Exchange service and the old service decommissioned. In turn POP and IMAP email protocols will be withdrawn from service to enhance the security of the service. Exceptions for the use of IMAP will be available where a strong case can be put forward.
	Email mailing lists are due to be migrated to Exchange by August. This will mean that all mailing lists will be provided by a common platform reducing support costs and management considerably. Once migrated lists will be managed by the UEA Identity Management System and the existing Mailman and text-based list facilities will be decommissioned. At present the facility for moderated lists will not be carried forward from Mailman but we will be investigating options for providing this in the future. In the meantime there is much more granular control over who can send to mailing lists once they are migrated and this will be implemented to ensure that only those that need to can send to lists.
	The Staff Exchange email service was upgraded in late March to the latest patch levels to support the integration of the Student email service. The initial upgrade although successful introduced some unexpected side effects as the result of a faulty patch from Microsoft. These were resolved as soon as Microsoft issued a revised version of the patch.
	We are in the process of ensuring our HP server infrastructure is within supported levels. This is a time consuming piece of work and will require downtime in a number of cases. Currently we are undertaking the preliminary planning and implementation and any required downtime will be advertised well ahead of time. This is an ongoing piece of work that must be undertaken at regular periods over the course of a year to ensure we maintain a robust service. As such ISD are in the process of defining 4 periods when preventative maintenance requiring downtime will occur.
Network and Telephony, management of the internal network, external network links, and telephony.	Power-over-Ethernet switches have been rolled out to EDU and some parts of ENV as planned, in support of the Administrative Integration Project.
	Much of the networking teams' activity has been focused on supporting the Administrative Integration Programme (AIP) which rolled on throughout the summer period as large numbers of staff

	moved around the site and space was refurbished and repurposed. This has overlapped with the expansion of UEA London onto floors 4 and 5 of their building. The team worked on the replacement DNS/DHCP solution in terms of migrating existing settings and the current set of equipment registrations, as well as the procurement of equipment and services for the up-coming year.
Research computing, provision and support for a 160 node cluster used for high powered computing.	Installation of the new Viglen High Performance Computing cluster facility finished in Oct 2010. The new cluster represents a significant increased HPC resource including: • An increase in total number (approximately 900 on ESCluster up to over 2000 on Grace) and performance of compute cores (total theoretical peak performance increasing from approximately 9TFlops to over 21 TFlops) • Increase in total number of Infiniband low latency connected cores (384 increasing to 672 cores) for parallel computing, with higher performance interconnect. • Improved energy efficient quad node chassis, producing 0.45 TFlops per kW (compared to 0.23 for ESCluster) In addition, a new General-Purpose computation on Graphics Processing Units (GPGPU) resource was added to the cluster as a pilot service. Usage of Grace has been steadily increasing since the resource was first opened as a pilot service, then becoming a live service before migrating to be the primary HPC resource. An increasing number of users are registered on Grace and all new accounts are created on Grace by default. With the move to Grace as primary resource, usage of ESCluster has generally decreased a little, however there are still periods of heavy use. Storage demand is increasing as anticipated with the increased computational resource. In December 2010 ESCluster suffered a serious failure with the scratch storage array on ESCluster which resulted in several days with no access to scratch data, however no data was lost. After the initial failure, data on the storage array was migrated to temporary storage on the SAN while the faulty array was examined before it was decided that the temporary solution should be kept until a new storage array was brought online. In September migration to the new array was completed, providing a more secure, higher resilience scratch array and quadrupling available scratch storage. Legacy resource Cluster1, which is only used by a select group of users with specific computational requirements, suffered a significant failure in April which resulted in downtime while master node services were migrated to a new system. There were then

	four days scheduled downtime in May to allow for power supply work in the data centre.
Teaching systems including the VLE, Portal, Library Management System, and some specialist teaching software.	After careful planning throughout the year, Aleph, our Library Management System was successfully upgraded in July with very little impact on our users. The Primo search tool has been re-configured to improve searching and to ensure local UAE resources are ranked highly. We have installed a the bX recommender product to add a recommendations service to the Primo search tool. After significant planning and testing we upgraded Blackboard to version 9.1 – this was undertaken over a single weekend with minimal impact on staff and students.
Administrative and web systems, including Finance, Student Records, HR, Estates and the UEA web site.	**Estates -**As noted above. **Finance -** we have undertaken a review of the technical infrastructure and supplier support for our current systems. We will be working with the Finance department to understand the issues this has raised and develop a plan for future provision of finance systems. **Web –** Following approval of the ISD Web Strategy we have made good progress in delivering new web sites for UEA London and NBS using the new Liferay product. The project to replace the Portal and Polopoly is currently being re-scoped in order to bring forward the main website replacement, at the request of ET. • Liferay was established as a live service providing support for the delivery of micro-sites (such as research project and group websites) • The web team worked with CCP, Incrops, Grassroots Innovation, and CCA (Centre for Contemporary Agriculture) in using Liferay to develop web site templates • A template mimicking the appearance of the main UEA site was developed Liferay was demonstrated to the IRB in May 2011 **HR -** We are in the final stages of preparing a pilot to deliver online payslips. **Identity management -** Work to support anti phishing and web based password reset was completed in time for 2011/12 starters. Around 85% of all users have taken the opportunity to configure password self help. We have worked to support the migration of student email with the provision of new data feeds, as well as developing feeds to enable mailing lists to be migrated to exchange. A major piece of work has been configuring data feeds to change staff departments and department names , as well as group and access changes in support

	of the Administrative Integration Project **Security -** Ongoing work has been undertaken to ensure the security of corporate systems. This work has included re-configuring various authentication systems and removing local administrative access from systems. We continue to monitor and improve security as part of the ongoing work of the security project..
Audio visual services, including video conferencing, TV studio, off air recording and access grid.	An update on the TV Studio is given above. The Access Grid was upgraded in February 2011 from a national funding initiative. The possibility of relocating the Access Grid to be adjacent to the videoconferencing suite on Floor 02 will be explored in 2011/12. As part of the Integration Project, AVS has been disbanded with its functions split between the Faculty IT Support teams and the new Telecommunications Suite.
Print group services.	Print Services continue to be engaged in the pilot project associated with the implementation of e-submission of coursework for 2011/12.