

# ISC10D033

## ISD Programme of Work 2010/11

### Project reports

<b>Improving the Physical Environment</b>	
TV Studio refurbishment	ISD is working with FTV and HUM to maximize the cost effectiveness of the on-campus TV Studio provision. Following discussions with the Head of School of FTV and the Dean of Humanities, the capital available for the TV Studio refurbishment has been reduced to £150K and implementation postponed to the 2011/12 academic year. In the meantime, business cases will be worked up to ensure the refurbishment is tied into existing and emerging teaching needs.
Tender for AVS managed service	The national and SUPC regional framework for the design, supply and installation of AV systems and equipment has been awarded via the European Journal process. One of the objectives of the managed service is to put in place whole-life support arrangements from the design and specification stage through to disposal for lecture room support and related solutions. Other objectives include standardisation, current technology, ease of use, reliability and value for money. Work on developing the local version of the specification will be progressed in early 2011, with those on the framework then being invited to bid.
<b>Supporting Research</b>	
Development of Research computing support services	<p>The installation phase of the new HPC cluster facility finished in early October, with Viglen acceptance testing continuing before UEA site acceptance testing began. Because of the complete change in technology between the resources, much emphasis was placed on administrator training and system configuration. New and novel functionality were introduced such as on demand multi-OS compute nodes, and the Green Data-centre Daemon and are being integrated into the facility. Investigation and integration of new technologies such as manycore compute hardware and General Purpose Graphical Processing Unit systems has also begun, which could provide further computing tools under the HPC facility.</p> <p>A competition was held to name the new HPC facility, which was eventually won by the suggestion Grace, after Grace Hopper, a female IT pioneer. The judging panel also noted the name fitted as a pseudo acronym for Greener Research Computing Environment.</p> <p>An outreach event aimed at the Arts, Humanities and Social Sciences was held at UEA in December with further outreach events anticipated alongside events targeted at existing users. The Research Computing Services team ran a SCI Personal and Professional Development PGR course in High Performance Computing, aiming to give students some background on using HPC and a practical introduction to using the UEA</p>

	<p>facilities. The recent researcher IT survey also highlighted the requirement for further HPC training, so wider training options are being examined.</p> <p>The new research login service, which will eventually replace some of the functions of UEALogin1 and UEALogin2 for research staff and PGR students, is currently being configured. The live date for this service has been pushed back due to other commitments with systems the login service is dependent on.</p> <p>The researcher IT survey, carried out in November included a number of questions relating to researcher storage use and requirements, backup and archive policies, data compliance and retention policies. This is currently being analysed and will be reported to ISD Management Team and Research Board.</p>
<p>Development of a Virtual Research Environment (VRE)</p>	<p>Work on the virtual research environment has been in three main areas:</p> <ol style="list-style-type: none"> <li>1) Completion of DigiTool to e:prints conversion and rolling out e:prints to faculties. This work is now complete with e:prints being used as our prime storage for information relating to research publications. There is some outstanding work to fully integrate e:prints into our environment such as enabling Single Sign On – this is dependent on other projects and will be rolled out as part of the other projects.</li> <li>2) Completion and piloting of the electronic research plans. The software is now complete with a pilot being run to fully test the software before wider rollout.</li> <li>3) Building a UEA-wide research data model. Work is underway to map UEA research management data onto the European CRIS standard which is being adopted for submission of REF data. The research model is identifying data duplication across the university as well as areas where we are lacking data. The data model is key to enabling us to consolidate data and systems related to research data</li> </ol>
<p>Managing Research Publications</p>	<p>The Faculty of Health is the first Faculty to move away from their previous publications database and on to EPrints. We continue to investigate ways of uploading in bulk from databases with some metadata successfully ingested from the Scopus database.</p> <p>The next stage of the repository advocacy is to run sessions for academic staff early in the New Year to raise the visibility of the repository as well as to promote the deposit of full text material.</p> <p>Although the need for a Repository Manager has been agreed by ISSC, it is unlikely that such a post will be funded in the short term. In the meantime Rachel Henderson, the Research and Science Faculty Librarian, will use some of time allocated to her research work to manage the repository and provide support to academics on the more complex aspects of full-text deposit and copyright clearance.</p>
<p>Review of collaboration tools</p>	<p>A researcher IT survey was carried out in November, which amongst many other areas covered the use of research collaboration tools, asking</p>

	<p>“Which tools do you use to collaborate with other researchers about your work?” and “Do you use collaboration tools supplied by third parties”. The results of this survey are currently being analysed and will be reported to ISDMT and the Research board.</p>
<b>Supporting Education</b>	
Review of VLE provision	<p>This work has not been formally started at this point in time. ISD are however assisting FOH in implementing Moodle as well as working with Blackboard to plan the upgrade of our existing VLE.</p>
Review of the impact of technology on teaching	<p>Initial information gathering is underway and we intend to develop a paper for consideration as part of the consultation initiated by the PVC Academic in Learning and Teaching Strategies post Browne.</p>
Video and Audio Streaming	<p>The Real Helix Media Library Server has been used by a number of UEA academic and support staff colleagues to upload and publish via web pages and BlackBoard, and to check functionality, process and experiences. Whilst a software release is awaited which will enable controlled access to restricted content, the Media Library Server will be rolled out to UEA staff in January 2011 for general use in support of teaching and learning, research and engagement.</p>
Roll out of Lecture Capture	<p>This will provide the server infrastructure and recording systems to capture and publish lectures online (until now, UEA’s facility has relied upon loan equipment). A project initiation meeting is scheduled for January 2011.</p>
<b>Supporting Enterprise and Engagement</b>	
UEA Alumni Archives project	<p>The funding for this project has not yet been secured.</p>
<b>Supporting UEA Business Processes</b>	
SITS Project	<p>The SITS Project Programme of Work has been significantly delayed due to staff absence and the additional resource required to support the timetabling implementation. Currently three members of the team are away from UEA for a protracted period. At the same time, we have welcomed three new members of staff since September; Jo Champeney (SITS Trainer), Thompson Zulu (Systems Developer) and Helen McSparron (Systems Developer). All three staff are undergoing a period of training which requires resource from existing members of the team.</p> <p>The timetabling focus for Semester One was as follows:</p> <ol style="list-style-type: none"> <li>1. End user support</li> <li>2. Support for handover to the Planning Office</li> <li>3. Technical support for bugs identified in SITS</li> <li>4. Enhancements to existing functionality</li> </ol> <p>An upgrade to version 8.3.1 of SITS took place in November to address a number of bugs identified in the 8.3.0 version used for Semester One timetabling. Unfortunately this upgrade also included a number of new Tribal introduced bugs which required significant effort to resolve.</p> <p>Semester Two timetabling and student scheduling was completed across</p>

all Faculties prior to the Christmas break. There are approximately 300 students who still require scheduling; these all need changes to their module selections in order to provide a clash free timetable. We are particularly grateful to staff in Teaching Offices who worked solidly on timetabling in the week prior to Christmas. SWP, MED and EDU PG will continue to use paper based timetables for Semester Two but with the expectation that online timetables can be provided for September 2011. All other schools will use the SITS online timetables, including PHA, EDU UG and AHP UG who were excluded in Semester One.

Improvements have been made to the room allocation process for Semester Two, and this allowed for 77% of all requests to be roomed in the home location or surrounding areas. From a total of 30,000 requests, an overall total of 98% of requests were roomed. Analysis of the original request times shows that the most popular requested slots are between 10am and 1pm on Tuesdays and Thursdays, and that there were a low number of requests for 5pm – 7pm across the week. The quantity of requests being received at popular times impacts heavily on the ability to room within the home location. The Planning Office have agreed to investigate further the requests being made for rooms, to identify common trends which may impact on the rooming process and advise on how improvements can be made to the module timetabling processes.

The exam scheduling functionality has been used to successfully produce exam timetables for students for January exams. This work was completed by the Assessment Office and required little input from the SITS Project Team. However, an online timetable for exams has not been produced for this round of exams as this will require resource from the SITS Project Team. It is expected that the online timetable will be available for Easter exams.

The following items are delayed and have been reported to the SITS Project Board and key stakeholders:

1. PGR error reports – checks that will help address data inconsistencies in the REF return.
2. Additional modes of attendance to support the HESA return.
3. With the introduction of version 8.3.1 in November, the upgrade to 8.4.0 of the live service has been delayed until April.

Analysis work for the Paperless UCAS processes is due to start at the end of the month, and this will inform whether the out-of-the-box solution provided by Tribal will be implemented or whether the requirements of UEA will require a bespoke system to be built. We will also be starting the work on the INTO tracking requirements which will identify the best method to collect progression information on INTO students.

The SITS Project Board will review the Programme of Work in February and will make recommendations on priorities for February until July. This will include known developments as a result of the administrative review and the School and Faculty name changes confirmed for FOH.

Finance Systems improvement project	A series of workshops and one-to-one meetings have been held to review issues and opportunities relating to the finance system. A report is being developed in partnership with the Director of Finance that will identify areas of potential concern and possible future work.
Campus Card Replacement	The first large batch of campus cards have been produced offsite but issues with some of our library bar code readers (specifically older ones in some of the self service machines) have prevented us handing these out. We are working with the suppliers and card producers to find the correct solution. We are also in discussion with card producers and our access control provider to find a method of encoding cards offsite.
Review of ICT support for space management	Work has been undertaken with Estates to improve the data collection stage of space management. Estates and ISD are investigating methods to make better use of existing data and systems, as well as reviewing potential new systems. At present no formal project requirements have been defined in this area
Voice Over IP	The project was previously delayed by significant technical problems. These have been overcome and the planned roll-out is now back on schedule. The Arts buildings, NAM and NBS were completed last year with ZICER and Queens being completed so far this academic year. MED is the next scheduled roll out, which is due to start now and be completed by early February. Later this year CAP and Elizabeth Fry buildings will be completed, along with the forthcoming moves and changes for the admin sections. Discussions are continuing with Siemens regarding outstanding contractual issues and we hope to have these resolved soon.
<b>Ensuring Service Availability</b>	
ICT Security Project	<p>This project has now completed the initiation stages with a full project plan and project schedule finished and approved by ISD/MT. The project team is currently being set up with work already in progress in many areas as below:</p> <p><b>Policy and Strategy Changes:</b> Work has started in this area with revisions to security policy being undertaken. One-off audits have also taken place with actions taken to resolve any issues identified.</p> <p><b>System and Server Changes:</b> Work is ongoing with the removal of accounts on PCs and servers that provide high levels of access (root/admin).</p> <p><b>Data Security Changes:</b> Work has started on mobile device security with a pilot group using secure email services on their mobile phones.</p> <p><b>Email Changes:</b> Work is progressing on email archiving with a pilot group using the new facility.</p> <p><b>Desktop Changes:</b> Revisions to the desktop security guidelines are on track to be completed as scheduled. A newer version of the Anti-Virus and Malware/Spyware software has also been successfully packaged and deployed to PCs using the Standard University Desktop. Also as PCs</p>

	<p>are being upgraded to Windows 7 for students and staff their physical and hardware security is being assessed with any issues highlighted and resolved.</p> <p><b>Networking Changes:</b> Work is ongoing with the replacement of the DNS/DHCP and creation of network segmentation. Work in this area may be delayed to allow for the replacement of the core network hardware which recently failed.</p> <p><b>Research Support Changes:</b> Work in this area is planned to commence in January.</p>
ITIL implementation	<p>The initial implementation of ITIL principles within ISD will be focusing on three areas; Service catalogue, Service/Help desk and Change control.</p> <p>Service catalogue - Role and role descriptions have been agreed for services and work is progressing to create an initial high level service catalogue.</p> <p>Service/Help desk - Work on reviewing the help desk will take place in February with the assistance of external support.</p> <p>Change control – Currently on hold.</p>
Enterprise Service Desk implementation	<p>The final stages of rollout and training on ESD for ISD staff will be completed in January 2011. From that point, all calls will be logged on the new ESD system, with the benefits of enhanced monitoring and join-up between first and second/third line support. The system also includes 'quick logging' functionality for quick calls.</p>
Costing services	<p>This work is planned to commence from Easter.</p>
Development of a 5 year ICT Systems Strategy	<p>This work is planned to commence in January.</p>
Server Virtualisation Project	<p>This project is looking to re-evaluate the way that UEA utilises virtualisation and enable the phased migration of appropriate services in a cost effective manner.</p> <p>A full option appraisal of virtualisation solutions including total cost of ownership was undertaken in August and September. As part of this system and service owners, including Faculty IT Managers and ITCS staff, were surveyed regarding requirements. Both Microsoft Hyper-V and VMware were considered with the overriding conclusion being that VMware was the only viable solution when taking all requirements into consideration.</p> <p>In conjunction with our hardware partner Servo a capacity planning exercise was undertaken in October and November to evaluate candidates for virtualisation. Running for a month the report concluded that UEA could potentially consolidate 159 existing servers onto 16 new servers. This does however make a significant number of assumptions and does not take into consideration what services these servers provide.</p>

	<p>Investigations into the methods for presenting storage are currently underway. We are working with Servo and our storage partner Tectrade to ensure that best practice is adhered to and that we don't introduce bottlenecks for the SAN or the virtualisation solution.</p> <p>A full evaluation of the existing pilot hardware, that runs a small number of faculty print servers, and the new hardware purchased during a previously stalled project has been undertaken and migration options have all been considered to ensure that those servers currently running continue to do so.</p> <p>Planning for a pilot of the new service is now underway using all of the information gathered from the above processes. A recommendations document is being compiled and next steps are to be agreed in January.</p>
Managed Print Services	<p>The technical proof of concept has been achieved with Ricoh after some delays. Plans to pilot in the Arts Building had to be reviewed as a consequence of device location concerns in corridors with high footfall. New pilot areas have been identified and agreed as NBS / SSF Faculty Office accommodation on Floor 1 EDU. Audit arrangements are currently being finalised and agreed for implementation early in 2011. The audit will identify recommended device type deployment to enable the Managed Print service pilot to be implemented and run through to end April 2011, reporting to ISSC in June 2011.</p>
Managed PC procurement	<p>The MSPCP project team draws on IT and administrative staff from FOH, HUM, SCI, SSF, FIN and ISD. As a team, a detailed statement of requirement document (SOR) was drawn up and issued to suppliers on the SUPC framework agreements for the supply of desktop and laptop computers. The SOR reflected all aspects of the service with appropriate scoring weighted to reflect the relative importance of the criteria to the institution.</p> <p>Responses to the SOR were received from Dell, Getech, Stone, and Viglen.</p> <p>The project team met as a group to mark the responses and agree on scores. All suppliers were also invited to supply hardware for evaluation and to give a presentation on site about their proposed services to an invited audience of IT, finance and administrative staff. The findings from the hardware evaluation and presentations were then used to review and adjust scores if necessary.</p> <p>Viglen yielded the highest score as a result of this process. References from other institutions already using Viglen were followed up. All indicated they were very satisfied with the quality and professionalism of the service they received from Viglen.</p> <p>The recommendation of the project team was put to and approved by the project board and ISSC.</p> <p>The contract was awarded to Viglen on 22 Nov 2010 following</p>

	<p>clarification of a number of details of the agreement. Work has been undertaken with Viglen during the period between the award of the contract and the Christmas break to agree hardware specifications and configure the web ordering portal for IT and finance staff. From 4 Jan 2011, purchases for new desktop PCs and notebooks are to be directed to Viglen. Work on refining the ordering process and establishing full support and training will continue through to Spring 2011.</p> <p>Note that the contract awarded to Viglen is for the supply of Viglen desktop PCs and Toshiba notebooks.</p>
<p>Records Management Policy Development Project</p>	<p>A high level records management policy was approved by ISSC at their June 2010 meeting.</p> <p>A discussion paper on the requirements for a research data management policy was presented to the ISD Research Board in October 2010. Following this discussion, the next step is to produce a draft policy.</p> <p>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.</p> <p>In particular, there is a need for records retention schedules (RRS). These define for each record group how long to keep the records for, and what action to take at the end of this period. There is a proposal on the development of working RRSs in draft.</p> <p>Related to this work, an ICO undertaking was signed by the VC of the University on 10 Dec 2010 (and publically released by the ICO on 22 Dec 2010). Point 3 in the undertaking is "The importance of good records management is embedded into the Universities information management processes, procedures and culture;" This will help drive the work on establishing RM at UEA.</p> <p><a href="http://www.ico.gov.uk/what_we_cover/promoting_openness/~media/documents/library/Freedom_of_Information/Notices/uea_foi_undertaking.ashx">http://www.ico.gov.uk/what_we_cover/promoting_openness/~media/documents/library/Freedom_of_Information/Notices/uea_foi_undertaking.ashx</a></p>
<p>Reclassification Project</p>	<p>The data clean-up part of the reclassification work is ongoing. We aim to complete the priority data in this academic year. Aspects of the high impact record checking are taking longer than initially anticipated, but are still on track to be completed this year. The final clean-up of name and subject headings may take considerably longer. We will continue to feedback to LLR Forum throughout this process.</p>
<p>Journals review</p>	<p>A journal review will take place between January and May to scenario plan for any possible restructuring of the acquisitions budget. This review will take a quantitative and qualitative approach.</p>
<p>Development of a 5 year Network Strategy</p>	<p>This work is planned to commence in January.</p>

Review of Acquisitions processes	This review is scheduled to begin in January focusing on reviewing processes for obtaining reading lists from academics and the subsequent ordering of the core texts.
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## 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.

<p>Library resource provision, including management of the physical and electronic collections and information skills training.</p>	<p>After a period of consultation with SUMS Consultancy we carried out a review of shelving and implemented new processes. It was clear from user feedback and from library staff experiences that the workflow previously in place was leading to delays in books being re-shelved. The rationale of the review was to ensure the return of books to their 'home' shelves within 24 hours and to put in shelving resources throughout the day rather than just in the morning, as was the previous practice. The new process was launched in September 2010 and has been a great success. There has been a notable decrease in the amount of books waiting to be re-shelved and at normal times all books are re-shelved within the 24 hour target. It is anticipated that these new processes will ensure greater access to books for all library users and will reduce the number of books reported missing.</p> <p>We launched the updated information skills programme in late September 2010. This new programme offers a greater variety of topics and is aimed at new and returning students. In the first semester of 2010/11 there was a significant increase in attendance figures as measured against 2009/10. Feedback from attendees has been very positive.</p> <p>Although there has been an increase in attendance, there remains scope for growth. We plan to increase our marketing of these sessions and to review the provision to meet the demands articulated in the feedback forms. As an outcome of feedback received already we plan to run sessions on individual resources. We will do this initially with EndNote early this semester. The Information Skills Librarian is also working with Faculty Librarian colleagues to identify other subject specific resources which may be suited to this approach.</p> <p>Following on from the successful launch of the new Information Skills programme, we are planning to work more closely with users on the future developments of our resources. The first instance of this new approach will be a focus group of users from all Faculties to gauge how users are searching for information and what type of resource they prefer. The results of this focus group will be used to help us to improve the configuration of Primo. Jane Helgesen and Sarah Elsegood are leading on this work. Jane has been liaising with the University Survey Officer.</p>
<p>IT infrastructure in teaching spaces, including IT teaching areas, 24 hours IT area, self study spaces and AV services in lecture</p>	<p>In preparation for the start of the Academic year all ISD managed student IT areas were migrated to the Windows 7 64-bit desktop. With the assistance of some faculty IT staff, especially those in ENV, over 60 applications were prepared, successfully tested and deployed to approximately 570 workstations. The desktop was also deployed to over a 100 workstations in other faculties. A few</p>

rooms.	<p>problems did occur on the desktop that were not picked up in testing. The most major of these was the student network printing service, which stopped working as the load increased. Switching to a less complicated printer driver alleviated the problem and it is expected that a major upgrade to the software planned for January will result in a more reliable service. It would have been possible to provide a more reliable interim service if workstations using the service in the faculties had been migrated to Windows 7 as expected.</p> <p>During the Christmas 2010 vacation the workstations in all centrally bookable lecture rooms will be migrated to Windows 7 64-bit.</p>
Staff and student enquiry services, including IT helpdesks, Library helpdesk.	<p>The changes made to the entrance floor of the Library have been well received by users and since September we have seen up to a 35% increase in people using the Library, based on the Sconul benchmarking headcount days.</p> <p>We are continuing to review our back of house procedures to streamline processes where possible and improve efficiency. For example, we have begun work with Faculty Librarians and Finance to model alternative ways of dealing with invoicing for non-returned items. We have also been working with INTO and HR to make changes to processes to try and improve the end user experience for new staff and students when collecting IT accounts and campus cards.</p> <p>There have been significant changes in the staffing at the IT Helpdesk which have at times affected service delivery. We are currently recruiting to two vacancies in this team. The IT Helpdesk has continued to work with IT colleagues to help with testing for upgrades and system developments and to support end users through changes such as forced password changes, software upgrades and the continued roll out of Windows 7.</p> <p>We are continuing our work to map Library utilisation data against the student Equality and Diversity profile to identify any hidden barriers to accessing Library facilities and services and any under-represented user groups. We are working with colleagues to use the data now available on PC usage in the IT labs to develop real-time information about PC availability across campus.</p>
IT infrastructure, including two computer suites providing resilient email, filestore, backup and authentication services.	<p>Over the Christmas vacation we experienced problems with the student email system which caused intermittent service. It transpired that the cause of the disruption was connected with the temporary network solution that was installed before Christmas. This was resolved on 4<sup>th</sup> Jan.</p> <p>The new TSM backup server installed over the summer vacation to replace and consolidate our two original TSM servers is now backing up all clients. Now that all of the clients have been migrated we must wait for the old TSM server backups to age out before decommissioning of those servers can begin. This process should be</p>

	<p>completed by the end of January. Once completed TSM schedules will be rationalised to ease the administration of the system.</p> <p>The Ontap firmware upgrade to the NSeries filers has provided the necessary compatibility for Windows 7. There are still however issues with Windows 7 recognising 'Previous Versions' on Central File Store. 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 is ongoing to determine the most appropriate way to apply these changes which disrupt access to the service. In the meantime snapshots are available by browsing to the appropriate folder and adding '\.snapshot' to the network path.</p> <p>Work continues to ensure that best use is made of the additional NSeries cluster installed in our second computer suite. This allows for the mirroring of data from our existing NSeries cluster with the aim to improve recovery times in the event of data loss. We continue to work with our storage partners on the best way to approach this.</p> <p>A successful proof of concept exercise of the Microsoft Exchange message archiving software Quest Archive Manager run over the summer has led to the purchase of the software. The software will allow 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. Statistics gathered by the software predict that a 34% saving in storage can be achieved based on current usage. The software has been used by a small test group in ITCS with a wider ITCS pilot being implemented in early January 2011. Implementation across UEA is not expected until data retention policies have been ratified.</p> <p>Mobile synchronisation policies to secure mobile devices that synchronise email with the UEA Exchange service were successfully piloted for a month in October leading to a wider pilot involving IT support and ITCS staff in November. The wider pilot has highlighted that a significant number of personal devices synchronise with UEA Exchange. This has led to some negative reaction from those users and this feedback will be taken into consideration and communications prior to full rollout.</p> <p>No major changes were made to the operational infrastructures in the computing suites. The computer suite team assisted with the installation of over 20 servers across the two suites as well as assisting with the installation of additional SAN equipment. Around two dozen servers were also decommissioned.</p>
<p>Network and Telephony, management of the internal network,</p>	<p>The recent network problems are documented separately.</p> <p>The Power-over-Ethernet switch roll out continues with deployments to MED and Queens Buildings completed.</p>

external network links, and telephony.	Deployments to CAP and EFRY are planned for the spring. In parallel, equipment has been replaced in Nelson Court and distribution routers in the Halls have begun to be deployed.
Research computing, provision and support for a 160 node cluster used for high powered computing.	<p>Since 21<sup>st</sup> December we have been experiencing significant storage problems with the EScluster scratch array. The problems started when two disks within the array failed. After investigation it became clear that the problem was not related to the failed disks but instead to problems on the array backplane. Dell storage specialists continue to work on the problem and the resolution is taking much longer than expected, in part due to the Christmas vacation and replacement parts being dead on arrival. The problem is further complicated by potential data corruption with the file systems managed by GPFS (General Parallel File System). The problem affects 11Tbytes of data from users SYS, CRU and MTH.</p> <p>Investigation has started on the possibility of providing a temporary replacement for the scratch array on the SAN and options for retaining some or all of the data on the array. It should be noted that space on the array is dedicated for temporary storage and as such is not backed up and retention is not guaranteed. Users are being kept up to date with progress via routine emails.</p> <p>Usage on EScluster remained high, particularly for medium to large scale parallel processing tasks. Similarly, storage requirements have increased.</p> <p>See - Development of Research computing support services</p>
Teaching systems including the VLE, Portal, Library Management System, and some specialist teaching software.	A series of database and security upgrades have been applied to most CIS systems including the VLE and Library Systems. The system running the main library catalogue has been migrated onto new hardware and the database migrated onto a system compatible with our Oracle Framework. This brings backup, disaster recovery and management in line with other corporate applications and enables the database to be maintained by the DB team rather than library system support team.
Administrative and web systems, including Finance, Student Records, HR, Estates and the UEA web site.	<p>A long delayed upgrade to the finance system has been applied bringing improvements in both the QLX and PMA portions of the software. A further upgrade is planned in support of e:procurement. Work to move the finance system databases to the Oracle Framework has been started but was delayed due to staff absence and other system issues.</p> <p>Corporate applications have been tested and prepared for running on Windows 7.</p> <p>Work is underway to upgrade some of the servers delivering the SITS student record system. This will improve responsiveness of the system and improve the web experience of users accessing the web front end including timetables.</p>
Audio visual services,	An update on the TV Studio is given above. Unexpectedly, a national

<p>including video conferencing, TV studio, off air recording and access grid.</p>	<p>funding initiative is enabling the replacement and upgrade, in early 2011, of the existing 5 year old equipment in the Access Grid. This is because MTH uses the Access Grid to deliver a series of lectures as part of the national MAGIC programme for post graduate students which includes a funding initiative for hardware upgrades for participating institutions.</p> <p>Work is underway to replace the hearing loop systems in Elizabeth Fry Lecture Theatres and SCI 0.31 in readiness for the start of semester.</p>
<p>Print group services.</p>	<p>Mike Bennett retired as Print Services Manager in December 2010 after 17 years of service. Karin Goodby will be taking over on a 6 month secondment from her role as Deputy User Services Manager.</p>