UCD IT Services

Seirbhísí TF UCD

Annual Review

2009

Contents

2009 - The Year in Numbers

1,131,959,458 mail messages delivered in 2009

759,805,956 emails filtered out as SPAM

8,000,000+ log-ins to UCD Connect during 2009

2,842,326 KWhrs used by the Data Centre in 2009

1,647,466 central processing unit hours used on the UCD portion of the National Cluster (ICHEC Stokes)

32,429 unique client devices on the network in November 2009

29,778 active network points available in 2009

22,358 unique visitors on www.ucd.ie/itservices in one day, 13th October 2009

15,500 miles of cable on campus

15,346 jobs run on the Phaeton HPC Cluster in 2009

12,500 non-CAO online applications received in 2009

Highlights in 2009

- **10 Gb/s connectivity for UCD**

- **More flexible teaching and learning spaces in Daedalus**

- **Video Conferencing facilitates international collaboration**

- **Connect Files - 2 GB web storage space**

- **Google Search usage grows**

- **Social Learning tools**

- **PC Health Checks for all staff**

- **70 websites on CMS**

- **ePayment facility for printing**

6,730 subscribers to Puremessage by end of 2009

4,199 attended student induction courses in 2009

3,822 simultaneous users on Connect on June 5, 2009

1,052 staff used InfoView in September 2009

986 weekly support calls received during 2009

984 open access PCs on campus in 2009

900 wireless hot spots on campus

165 Terabytes of enterprise storage for Researchers

106 SUAS stations open in 2009

100+ countries accessed Connect each week

70 websites migrated to CMS by end 2009

4 IT Centres on campus

2 GB web storage on Connect Files available in 2009

InfoView usage grows by over 25%

Usage of the InfoView channel, set up in 2008 to offer staff speedy access to relevant and usable reports, has grown significantly during 2009 with a year-on-year growth of more than 25%.

The number of distinct users reached an all-time high of 1,052 (approximately one third of UCD staff) during September 2009.

Peak daily usage of over 2,000 reports viewed in one day occurred during September Start of term.
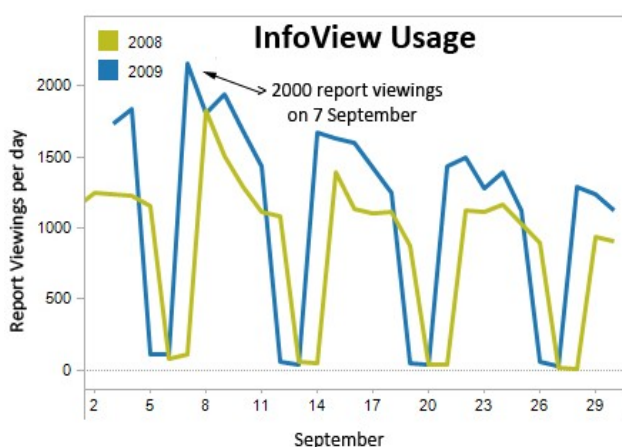
PC Health Checks

In February 2009, IT Services staff began performing health checks on staff PCs. The health check involves antivirus scans, service packs and patches being applied as well as numerous other checks. The programme will continue throughout 2010.

New Curriculum Management System

IT Services, in collaboration with Registry, developed and implemented a new online Curriculum Management system to assist school administrators and academic staff in creating and managing programmes.

Over 70 sites now integrated with CMS

Amongst these are UCD's first bilingual site, the National Folklore Collection and the Presidents website.

Student printing ePayment facility

For the first time in UCD, students can top up their printing accounts from anywhere. Three new ways of topping up were introduced by IT Services in 2009. They include: Mobile phone, WAP and Internet.

O2 Mobile Broadband offer

David Hodgers, Head of Services, Telefonica O2 Ireland, John Boland, CEO of HEAnet; Orla Coughlan, UCD Arts student and Olivia Flanagan, Trinity Maths student promoting the launch of the O2 broadband deal.

Start of Term 2009 saw the continued offer of mobile broadband from O2 with a newly competitive price starting at €9.99 for a 12 month contract for UCD staff and students.

Social Learning tools (Blogs and Wikis)

UCD IT Services have introduced a simple-to-use suite of social learning tools that integrates with the Blackboard virtual learning environment. The tools, which include blogs (personal journal websites); wikis (collaborative, media-rich websites); search tools and collaborative writing tools aim to foster active thinking and encourage student instructor interaction.

New Stand Up And Surf (SUAS) on campus

During 2009, SUAS were installed in the lower ground floor of the restaurant and in the newly refurbished common room in the Agriculture Building bringing the total number of SUAS on campus to 106.

Three more Technology Enhanced Spaces in Daedalus for Start of Term 2009

Two more Teaching and Learning spaces have been created (G3 and G5) as well as another Flexible Learning space (G2). The two teaching spaces were developed following the success of G6, which showcased and piloted new technology teaching solutions such as lecture capture technology, also available in G3 in the Daedalus as well as Theatre L in the Newman Building and B004 in Health Sciences. A mobile lecture capture system has also recently been introduced and is available to staff to borrow for up to a week at a time.

The second Flexible Learning space G2 was designed with a similar layout to G1. Both spaces are wireless enabled for laptop users and offer a comfortable environment to work alone or in small groups. G2 incorporates two 42" LCD wall mounted screens which can be used by students for group work.

UCD First Irish University to benefit from 10 Gb/s connection to HEAnet

On Tuesday 13th January, 2009, UCD became the first Irish University to connect to HEAnet (the National Education and Research Network) at 10 Gigabit per second. Previously UCD connected to HEAnet at 1Gb per second.

So what does this mean?

10 Gb/s sets a new standard of connectivity for Irish Higher Education Institutes. The resulting increase in bandwidth and performance means UCD academics benefit from a faster internet connection with higher traffic transfers.

To illustrate, 10 Gb/s connectivity allows the equivalent of the entire 20 terabytes of published material in the US Library of Congress to be transferred in a little under 5 hours. HEAnet are providing UCD with two diverse 10 Gb/s connections to ensure high availability of this vital service. The resulting performance increase is designed to future-proof UCD bandwidth requirements for a number of years to come.
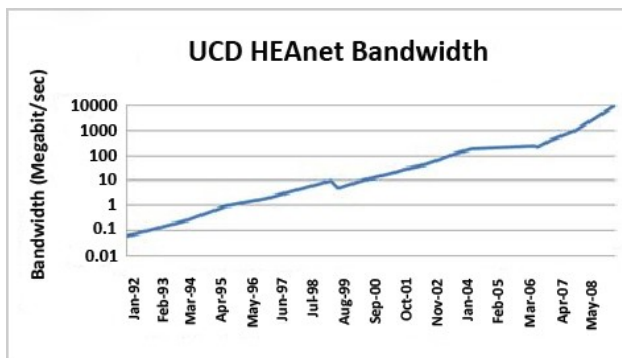
The chart above illustrates UCD's connection bandwidth to HEAnet over the past 17 years. January's upgrade continues the growth of Internet usage and innovation in UCD. The trend is exponential and amounts to a doubling of capacity every year.

Connect Files - 2GB easily accessible web storage space for all staff and students

A new web storage facility, Connect Files, offers 2GB of storage space that can be accessed from anywhere via UCD Connect.

Files and folders from your own computer can be easily placed into your storage space in Connect using the drag-and-drop function.

Connect Files also offers the option to share files and folders with other users, both within UCD and outside.

The space is provided as adjunct storage. Video tutorials on how to use Connect Files are available on our support site.

Google Search usage grows

The Google Search Appliance (GSA) introduced late 2008, is now fully integrated with our new Content Management System (CMS), and all CMS sites automatically have Google search applied to their local content. Weekday averages are regularly in excess of 3,500 individual searches.
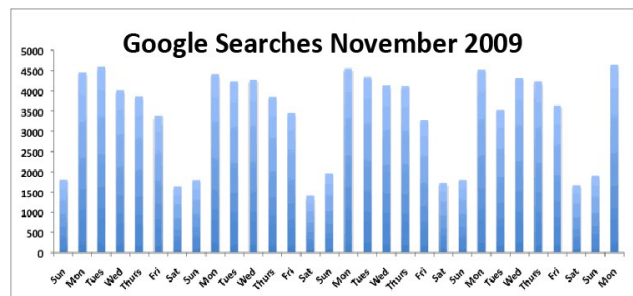
The graph above presents weekday searches for November 2009 during which over 96,000 distinct searches were made.

Wireless Survey 2009

During 2009, UCD IT Services ran a survey to assess the quality of the wireless service available throughout UCD and to learn about students' future requirements. 3,700 students responded.

Here is an overview of some key findings:

• Wireless connections are far more popular than wired connections for laptops users.
• When asked to rank the five most important services accessed via the UCD network using any device, most users ranked email and Blackboard either first or second in importance.
• When asked what extra services students would most like to use via the UCD network client, access to external email came out as a strong 1st preference. As a result of this feedback, access to the Gmail email client was introduced in 2009.
• First time connection came up as an issue for some 25% of wireless users, but most are satisfied with the service once connection is achieved. Consequently, support videos showing how to connect to the wireless network were created and distributed to all new students on the 4GB disk keys given at IT Induction during orientation week.

UCD's Usage of Stokes High Performance Compute Cluster

The UCD Research Community benefits from advanced technology in terms of high performance computing services. For example, 10% of the national supercomputer, the Stokes High Performance Compute cluster, is available to UCD researchers. This compute cluster processes huge amounts of scientific data at high speeds and also services the national meteorological service, Met Éireann.

User support for this service is offered via UCD Research IT and ICHEC (Irish Centre for High-End Computing) staff. On-site training is provided by ICHEC staff.

Dr Niall English, School of Chemical and Bioprocess Engineering beside the Stokes HPC cluster in the Research IT Data Centre

Since its launch in January 2009, usage of the service continues to grow with Dr Niall English (UCD School of Chemical & Bioprocess Engineering) topping our list for central processing unit (cpu) hours consumed in 2009.

There are benefits to sharing a large cluster such as this, for instance sample usage figures for July 2009 show that UCD consumed 343,090 cpu hours although our allocation is only 208,320 cpu hours. This overuse of cpu hours was facilitated by using unused ICHEC cycles during the summer period showing efficiencies can be gained by pooling resources.

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Video Conferencing facilitates International Collaboration

Video Conferencing is an aspect of technology enabled learning which is growing in popularity due to the benefits it presents for international collaboration in education and research. UCD IT Services offers users free access to its Video Conferencing facility located in the Collaboration Space in the Daedalus building.

The Video Conferencing equipment was recently used by Dr Iseult Honohan (School of Politics and International Relations, UCD) to host a meeting with the EUCITAC group, of which she is a partner. This is an international project focusing on access to citizenship in Europe and is funded under EU FP7. Five European universities participated in the conference, UCD, EUI in Florence, University of Maastricht, CEU in Budapest and the University of Edinburgh. This conference was made possible by connecting to HEAnet's Polycom Multipoint Conferencing Unit (MCU).

"Everyone was really pleased with the efficiency and quality of the video-conference process"

Dr Iseult Honohan, EUCITAC group

The MCU or virtual meeting room facility has capacity for up to 40 video locations as well as an additional 40 voice locations. The room, located on the ground floor of the Daedalus building, can accommodate up to 16 people. It is equipped with two 50" screens with three ceiling-mounted microphones and a Polycom HDX 8000 unit. The Polycom unit provides HD (high definition) resolution and also allows users to broadcast content (e.g. PowerPoint presentations) along with audio to their conference.

The image below is a screenshot taken from the web interface of the HEAnet bridge during the recent EUCITAC conference showing all 5 participating locations.