

HEAnet is Ireland's National Education and Research Network, providing high quality Internet Services to Irish Universities, Institutes of Technology and the research and educational community, including all Irish primary and secondary schools.



# NEWS

Issue No. 3 - October 2008



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## Board Approves New 5-year Strategic Plan



At its meeting on the 25th September 2008, the Board of Directors approved the core elements of a new Strategic Plan (2008 - 2013) for the Company.

This was derived from a detailed process of engagement with Board members, stakeholders and staff; involving some 48 consultation meetings and workshops since early February this year.

The Chairman, Tom Boland said that *"this new strategy is very important to drive the company forward in these more turbulent times and will indicate the direction and challenges facing the organisation and how it proposes to deliver on these"*.

I am delighted that the Minister for Science and Innovation, Dr Jimmy Devins, T.D. will launch the Strategic Plan at our national networking conference on the 13th November 2008.

**John Boland, CEO, HEAnet**

## Federated access Pilot

HEAnet have commenced a pilot project to deliver a federated access infrastructure to the research and education sector within Ireland. Federated Access allows students and researchers to login to remote services provided by third party service providers using the user's institutional login.

This reduces the number of credentials users have to remember and removes unnecessary user account exports from institutions to service providers. In the UK, institutions and service providers are migrating from the traditional Athens service login to federated access provided by the 'UK Access Management Federation'. The goal of HEAnet's pilot project is to enable Irish institutions to access remote services using a similar federated access system called 'Edugate'. The federation is based on the open SAML standard and will aim to include support for Shibboleth and Microsoft's ADFS and allow secure user attribute exchange with the users consent. The initial phase of this project evaluated the current federated access implementations in other countries where federated access has matured. Interoperability testing between different federated access protocols, applications and resources hosted by pilot participants and e-INIS partners is currently underway. For more information on HEAnet's federated access pilot project visit [www.edugate.ie](http://www.edugate.ie)



# HEAnet & O2 National Mobile Broadband Service

HEAnet and O2 are delighted to offer students and staff in Higher Education institutions a National Mobile Broadband Service on very favourable terms. This deal has been negotiated by HEAnet through an open procurement on behalf of the Irish Higher Education & Research Community and has been available from 1st September 2008. This service is part of HEAnet's Wireless Strategy which recognises mobile broadband as a valuable service to all students and staff. The Wireless Strategy is available at: [www.heanet.ie/services](http://www.heanet.ie/services)

Two types of service are available, O2 Contract and O2 Clear. Students and staff can subscribe at any participating campus or at O2 stores. The service is offered at a significantly reduced charge.

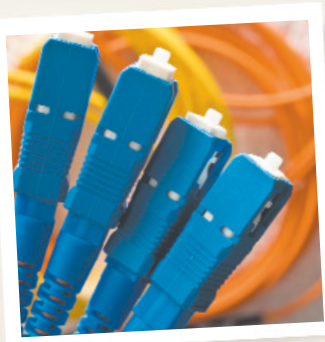
## 24 x 7 Support from HEAnet

We would like to remind all our clients that in the case of a major incident on their site, Network Operations support is available around the clock from HEAnet. Since February this year, calling the HEAnet NOC number, 01-6609040, will ring to the HEAnet Operations Centre between 09:00 and 17:30 and will pass through to an answering service outside these hours. This allows you to leave a message, or in the case of a site outage, request intervention from the on-call engineer. Any messages or e-mail

will be handled within 2 hours of office hours commencing. Since the 24 x 7 service has been running for 6 months, we will be conducting a complete review of all aspects of its effectiveness, usefulness and of the quality of service provided to our clients. We would welcome your feedback in this regard.

As always, the NOC is at your service, and can be e-mailed at [noc@heanet.ie](mailto:noc@heanet.ie) or contacted via phone at +353-1-6609040.

## High Performance Data Service



During the summer, HEAnet successfully concluded a tender process to purchase a high performance storage cluster for a range of managed services. The system chosen is an Isilon IQ X Series, which will provide us with high performance, flexible Network Attached Storage (NAS). The system has

become the centralised NAS storage for many of HEAnet's services including our software mirror service and multimedia content hosting. We are now offering access to this high performance NAS system to our co-location clients.

The storage cluster's current capacity is 53TB with an aggregate bandwidth capability of 6 Gbit/s. The cluster comprises of six 9TB nodes. Each node has dual client-facing resilience, gigabit ethernet connections and dual 10 Gbit/s Infiniband backplane connections. Up to 96 nodes can be added to the cluster with each node adding both network bandwidth and storage capacity.

At full capacity, the system can host of 1.6 Petabytes in a single file system and provide up to 80 Gbit/s of network bandwidth. The clustered nature of the system allows a high degree of resilience to both connectivity and hardware failure, extensively tested during HEAnet's acceptance period. We can define the level of resilience on a file and directory level up to N+4 protection.

The service offerings will be based on storage space and protection level. The basic offering will be one terabyte of space with N+1 protection. The highest offerings can be in the petabyte range with up to N+4 protection. Access to the service will be available over NFS, CIFS, FTP, HTTP and WebDAV from within the HEAnet services PoP.

## Minister Launches Extensions to HEAnet in Connemara

Under the National Backbone Extension (NBE) programme and with joint funding from the HEA and Údarás na Gaeltachta, new 100Mbps circuits have been installed in Galway and Clare. These connect teaching and research sites of NUIG and GMIT to HEAnet, and so integrate them within the campus LANs. The links were delivered and will be maintained by Airspeed. The new high speed network was launched by Éamon Ó Cuív T.D., Minister for Community, Rural and Gaeltacht Affairs, together with Kieran Loftus, Director of NUIG Computer Centre, and John Boland, CEO of HEAnet. Among the sites connected are the Atmospheric Research site at Mace Head, Áras Mháirtín Uí Chadhain in Carraroe, and GMIT's Mayo campus in Castlebar. This initiative of HEAnet makes Fast Ethernet capacities available for social and economic development in Connemara.



Pictured in background are: Professor Jim Ward, NUI Galway, Mr. Liam O'Kelly, Airspeed, Minister Éamon Ó Cuív, T.D., Mr. Padraig O'hAoláin, Údarás na Gaeltachta and Mr. John Boland, CEO, HEAnet.

## New IP Network

On August 1st, the Network Operations group of HEAnet assumed full responsibility for the new IP Network infrastructure. This new network, previewed at our conference last November, has been in active use since December 2007 and all of our clients have transitioned their connectivity to the network. The new network supports our new, upgraded connections to INEX,

GÉANT and the General Internet, all at dual (or quad) 10Gbit/s. All client connections will now be presented as Ethernet and connectivity speeds of up to 10Gbit/s are possible. The design of the network, with two CRS-1 routers deployed at the datacentres at Citywest and Kilcarbery Park, offers new opportunities to reduce the impact of network equipment maintenance

upgrades. This reduces the risk of downtime to our clients. The hardware also offers a high-performance platform to cater for client network bandwidth demands for the next 5 years and offers additional flexibility for the support of emerging network features with the new IOS-XR operating system. For further details please view [www.heanet.ie/services](http://www.heanet.ie/services)

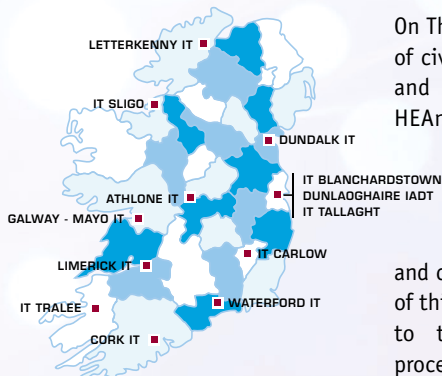


## Co-location Hosting Expansion

HEAnet is expanding the popular co-location service for clients in our managed data centre facility in Blanchardstown. We currently provide 9 racks of space for this service, available in quarter (10u), half (20u) or full (40u) rack allotments, and will be adding an additional 6 racks to this. A second facility is also being developed as a disaster recovery site for HEAnet infrastructure and services and we will be providing an additional 5 racks for the co-location service there once the build is complete. Co-location equipment is directly connected to the HEAnet national backbone and

is served by an excellent suite of environmental, power and management services, including remote KVM and remote power access. Hosted devices can also avail of redundant ethernet connections and redundant (A+B) power feeds, where the device supports it. Clients may also make use of the HEAnet National Backbone Extension which allows for the deployment of Layer 2 Ethernet circuits (LAN extensions) between their own network and equipment hosted in the facility, providing high speed LAN interconnections with remote equipment. Please contact [noc@heanet.ie](mailto:noc@heanet.ie) for more information on our co-location offering and associated charging model. For further details please view: [www.heanet.ie/services](http://www.heanet.ie/services)

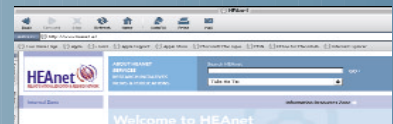
## Update on IoT Connectivity



On Thursday, September 25th, after a protracted period of civil and planning delays, Tralee IT - the thirteenth and last Institute of Technology within the HEAnet/ITNet Integration Project - successfully connected to the HEAnet backbone network. This marks the delivery of 1000 Mb/s (minimum) HEAnet connectivity to every IoT in the country. HEAnet acknowledge the patience and cooperation of every IoT involved in the execution of this project, the success of which can be traced back to the coordinated planning and consultation procedures implemented at the project outset.

## New Website

HEAnet will launch their new web site in November. This new site incorporates the latest services which HEAnet offer to clients and will also include a new Community area whereby clients can find out more about latest news and upcoming events within the HEAnet community. <http://www.heanet.ie>



## HEAnet's Live Budget Day Streaming sets new Traffic Records

HEAnet's live streaming during the budget saw new traffic records achieved, which this year saw us quadruple our traffic compared to last year's budget. Not only was the stream carried on the main Oireachtas website ([oireachtas.ie](http://oireachtas.ie)), we also provided RTE with a Windows Media stream, partnered with their RealMedia stream. Additionally, for the first time we provided The Irish Times with a Flash based stream. The Flash stream was our first live test of the new Flash Media Server infrastructure which we will be offering to clients very soon. In total, we were running 7 Windows Media Servers and 6 Flash Media Servers, which were handling, at peak, 12,000 concurrent viewers and pushing 4.4Gbit/s of traffic. The ability to push this much traffic is thanks to our 10Gbit/s connection into INEX. While we had this in place for last year's budget, it was better used this year, with other INEX members now having joined us in the move to 10Gbit/s. This also allowed INEX to hit new traffic records of their own, peaking at 5.345 Gbits. For more information, please contact [multimedia@heanet.ie](mailto:multimedia@heanet.ie)

## Arts and Humanities Initiative

HEAnet is looking for users to explore new ways for HEAnet's services to be utilised by people in the Arts and Humanities area.

All activities will be done in cooperation with the computer services departments in your institution. If you are interested in this initiative please contact us at

[ahiheanet@listserv.heanet.ie](mailto:ahiheanet@listserv.heanet.ie)



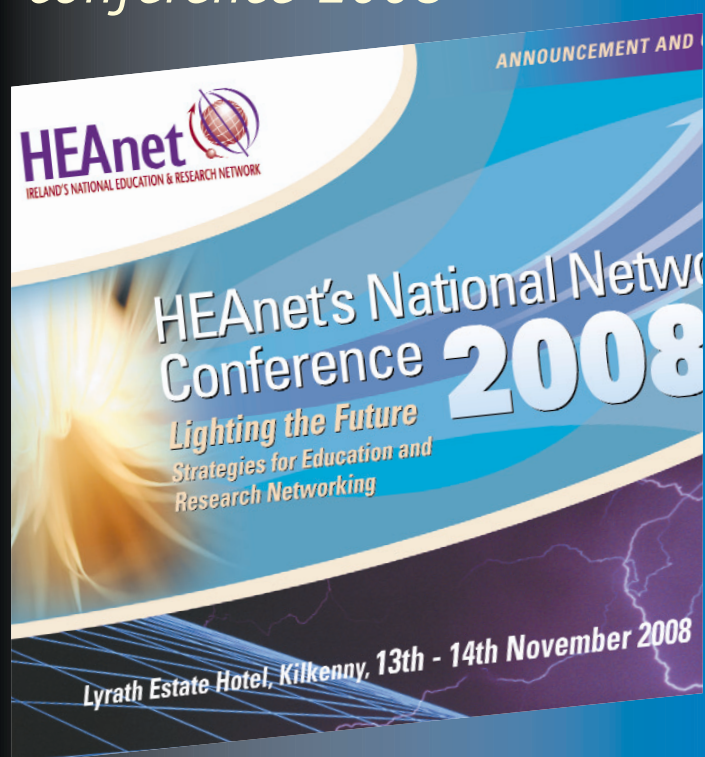
## HEAnet eduroam Workshop

We would like to thank everyone for attending the eduroam Workshop held on the 15th of October at HEAnet. The feedback received was very positive. This followed on the success of the recent IPv6 workshop also held at HEAnet.



If you have any ideas for future workshops please contact [rose.turner@heanet.ie](mailto:rose.turner@heanet.ie)

## HEAnet Networking Conference 2008



We are delighted to open registration for this year's Annual Networking conference. There is a draft programme available and some information on our plenary speakers please see: [www.heanet.ie/conferences/2008/](http://www.heanet.ie/conferences/2008/)



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