

New Client Services Manager

Peter O'Halloran



Peter O'Halloran has taken on the role of HEAnet Client Services Manager. With 25 years experience in the ICT sector, Peter has worked for a variety of multinational and Irish companies. His background in Service

and Programme Management for a range of significant enterprise clients will prove to be an important addition to the team and will drive forward our shared objectives over the coming years. Emerging from the findings of our Strategic Plan, we identified Client Services Management as a vital function within the organisation. As a member of HEAnet's management team, Peter will be focusing on achieving greater alignment between HEAnet and its clients, adding to what it has already achieved over the past number of years. Since taking up this role, Peter has adopted a two phase approach: first, to "Discover and Engage" and then, to "Agree and Implement" changes that deliver against shared objectives. A schedule of meetings on site with a range of Clients is underway and the definition of a plan to place "Client Services" on a programme footing has begun.

To contact Peter, please ring 01 660 9040 or email: peter.ohalloran@heanet.ie

TERENA Compendium

The TERENA Compendium 2009 is a selected summary of the full data set from the questionnaire sent to all NRENs last year.

The Compendium is now available for download at <http://www.terena.org/activities/compendium/2009/pdf/TERENA-Compendium-2009.pdf>



The 2009 Compendium is well worth reading: a mine of information, useful comparisons, trends and developments, etc. The individual returns for each NREN can also be seen in detail at <http://www.terena.org/activities/compendium/>

The Compendium's focus is on European NRENs. However, it also contains what is probably the most comprehensive list anywhere of NRENs around the world. This includes many new NRENs in the process of development.

About HEAnet

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

Now you can contribute to HEAnet News

If you have any news items that you would like to submit for our next issue please email judith.hally@heanet.ie

Further copies of this document may be obtained from HEAnet at the address below.

This document is also available electronically from: <http://www.heanet.ie/newsletter>

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The HEAnet Network Operations Centre (NOC) implements, maintains and supports the HEAnet network and services 24/7.

See your network traffic at www.heanet.net



GSN Project by Andrew Mackarel



The GreenStar Network (GSN) project lead by ETS in Canada and funded by the Canadian NREN CANARIE has been set up to initiate an international consortium of industry, universities and government agencies. This group has the common goal of reducing greenhouse gas (GHG)

emissions arising from information and communication technology (ICT) services.

The expected result of this collaborative research initiative is the creation of tools, protocols, procedures, and case studies for a growing network of ICT service providers that would allow customers to select the lowest price and greenest services available. HEAnet, NDRC, IZCAT and IBBT are the European partners in this consortium, which will carry out investigations into the dynamic circuit transport mechanisms, used to select

data centres powered by renewable energy sources. Each group will set up or leverage access to a data centre being run from a renewable energy source. In Ireland, HEAnet is working with the Environmental Protection Agency (EPA) on modelling a Solar Photo Voltaic array solution, and with Dundalk Institute of Technology on researching a wind powered solution for a renewable energy powered Point of Presence (PoP).

The main HEAnet focus is on researching the setup and disruption, caused by the variable nature of the sources for providing energy. The emphasis of the other European partners is placed on development of the middleware, to create the dynamic transport infrastructure mechanisms for fast deployment of this type of network.

Message from John Boland, CEO



I am delighted to announce that the **Minister for Communications, Eamon Ryan, T.D.** has confirmed that he will open our National Conference on 11th November this year. This is the tenth HEAnet annual national networking conference. Each year we have endeavoured to build on the success of previous years, and this year we intend, once again, to address some of the burning issues which we all face, with a range of stimulating speakers from across the HE sector as well as industry leaders.

We have undertaken to reduce the delegate fees for our conference to enable maximum attendance in recognition of the difficult economic times which our clients are facing.

This year the registration fee will be reduced to €395.

Given the learning opportunities and technology and skills updates which the conference provides for delegates, I hope you would agree that this represents extremely good value for money, and I look forward to seeing you there.

HEAnet's Carbon Footprint

by Mike Norris



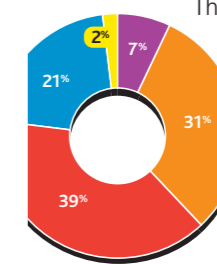
As part of its environmental strategy, HEAnet has undertaken an audit of its carbon footprint. This is the difference between the emissions and removals of greenhouse gases (GHG) for which the organisation is responsible. The work was carried out as a task within the GN3 (GÉANT) project, and so was part-funded by the European Commission. In fact, HEAnet leads the "green team" within GN3, the other partners being NIIF (Hungary), NORDUnet and PSNC (Poland).

As befits an activity within a research programme, we have complied with a standard throughout this exercise. ISO 14064 is more than just a standard measurement tool; it also gives guidance on projects to reduce GHG emissions. Dr Ken Beattie and colleagues from the Department of Building Services Engineering at DIT gave us an excellent grounding in the Standard, and practical advice on how to use it in our inventory.

The audit was carried out for the year July 2008 to June 2009. We used a template and measuring tool prepared by the GN3 green team and this proved very useful in identifying the data to be collected and apportioning the work among the environmental team in HEAnet. ISO 14064 has a validation phase for audits, and we chose to have this done independently. A third party expert, in the form of FORCE Technology of Denmark, was selected to validate the audits of the partner

■ Office ■ Data Centres ■ Core Network ■ Schools Network ■ Transport

NRENs. This was a rigorous but very instructive process. HEAnet's audit was the first to be validated; the net mass of greenhouse gas emitted in the year was 1765 tons of CO₂ equivalent.



The chart shows the breakdown in the various sectors of the organisation. Over 90% of the emissions were attributed to the operational sectors of the network - the data centres, the schools network and above all, the core HEAnet network.

The next step is to apply the lessons learned during the inventory and to apply these to reducing the carbon footprint.

This is now under way, and HEAnet is moving on several fronts. Not least are the practical studies of mini-PoPs powered by renewable energy - wind power using the turbine at DKIT, and solar power using part of the photo-voltaic array at EPA in Wexford.

HEAnet National Conference 2010

...a networking odyssey in the cloud...



The HEAnet National Networking Conference will take place on 10-12 November, 2010 at the Lyrath Estate Hotel in Kilkenny.

The conference provides a unique opportunity for you to meet your work colleagues in a social setting, where you can learn about, present and discuss the latest research and education developments while networking with colleagues, ICT experts, researchers, academics and industry leaders.



Submit a Paper (500 word abstract): If you would like to give a paper, or have a topic of interest and would like to share your knowledge and expertise, please send in an abstract of up to, but no more than 500 words to judith.hally@heanet.ie by July 30, 2010.

For further details of the HEAnet Conference, please go to www.heanet.ie/conferences/2010

HEAnet complete first phase of Schools 100 Mbit/s Programme

by Ronan Byrne

HEAnet has been appointed to act as network managers of a new high-speed connectivity programme that will deliver 100 Mbit/s network capacities to all post-primary schools across Ireland by 2012. This high-speed schools programme is being sponsored by the Department of Communications, Energy & Natural Resources (DCENR).



HEAnet is delighted to report that under the first phase of the Schools 100 Mbit/s Programme, 78 post-primary schools have all received a 100 Mbit/s symmetrical broadband connection in addition to a portfolio of network services being provided by HEAnet including: a managed school router, web filtering, security and anti-virus scanning.

In addition to 100 Mbit/s connections being installed at schools, infrastructure has also been established in the HEAnet backbone at two core HEAnet PoPs in Dublin and across twelve regional PoP locations around the country. This regional interconnectivity is being kindly facilitated by HEAnet clients who have allowed school connections to be terminated at their campus locations. Being able to interconnect at regional HEAnet backbone locations delivers very cost-effective backhaul from the regions and leverages previous public investment in the HEAnet backbone to date. In this regard, HEAnet and DCENR remain very appreciative of the support being offered by HEAnet member clients. HEAnet would also like to acknowledge the support of ESB Telecoms whose service underpins a significant portion of HEAnet's backbone reach.

The Schools 100 Mbit/s Programme kicked off with a public tender issuing in late June of last year and based on the ensuing pace of tender evaluation, contract award, and project implementation has enabled schools to start benefiting from this high speed connectivity within a 10-month elapsed project timeframe.

The advent of 100 Mbit/s connections to schools represents a significant increase in network connectivity for these schools and enables web-based resources to be incorporated in classroom teaching in a far more effective and efficient manner.

Schools have also received laptops and projectors under the scope of this first pilot phase which is being sponsored by the DCENR.

EduGate National Federation reaches production status

by Glenn Wearen



The adoption of the EduGate Rules of Membership by the EduGate Governance Committee formally establishes

HEAnet's national federated access service as a production service.

The EduGate service facilitates easier and more secure user access to online services and resources. This service also paves the way for the introduction of Single Sign-On (SSO) for campus users where one user-id is used to access all online campus services such as Email, VLE, Library and MIS applications. Disclosure of user information is also restricted to those credentials that the user is willing to share, delivering superior user privacy.

The formal adoption of the EduGate Rules of Membership represents a fundamental milestone for the establishment of national federated access management service for the entire education and research community in Ireland. Achievement of this milestone also represents the culmination of significant efforts on the part of HEAnet's Middleware Team and all those clients who participated in the EduGate pilot.

HEAnet will continue to promote and expand the EduGate service and it is actively pursuing the establishment of an international inter-federation with other National Research & Education Networks (NRENs) thus, allowing easier access and sharing of online resources across borders.

The EduGate federated access pilot is funded by the HEA's PRTL scheme through the e-Ins National e-Infrastructure programme. For more information on federated access and how to join the EduGate federation please visit www.edugate.ie or, alternatively, please contact glenn.wearen@heanet.ie

Resilience Project Update

by Victor Reijs

One of the most important HEAnet projects undertaken in 2010 is to improve the service resilience for most of our clients to the highest practical level. Up to four components may have to interact to provide full resilience: Path, PoP, Power and Equipment resilience. Clients with connectivity of 1 Gb/s now have Path Resilience. This means having two diverse fibre paths between the client and the rest of the HEAnet network. Equipment Resilience (which is dependent on path resilience for effective deployment) supplements this by ensuring that no one piece of equipment can affect both paths. The equipment will be deployed to participating clients by the end of June.

To further ensure resilience for these clients it is also important that they have connections to two PoPs, a scenario that is already the case for those clients that host an existing PoP. In that instance, the focus shifts to ensure that the PoP has a high level of Power Resilience. This is to support both the local client and other connected clients with UPS and Generator support which are key elements of this part of service resilience. Work has been carried out in 10 PoPs to supplement the existing power infrastructure. HEAnet is pleased to announce that 25 clients will have their enhanced level of service resilience completed by the end of June 2010.

Managed Services Update

by Brian Boyle

Contract management - Apple framework



A tender to facilitate the procurement of Apple Hardware and Software was published on 29th April. The Tender closed on the 8th June and will be followed by an evaluation process.

As a result of this, a framework will be put in place from which HEAnet clients will be able to make purchases via mini tenders.

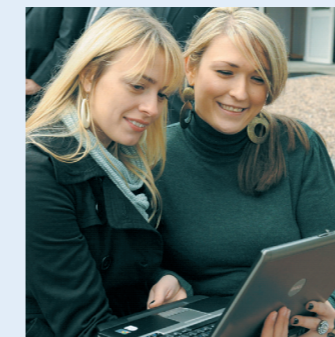
The HEAnet Security Certificate Service

Our security certificate (SSL / HTTPS) service is growing, with over 28 client institutions signed up to take advantage, and to date over 300 certificates have been issued. This has provided quite significant savings for our sector. The service is based upon the Terena certificate project, and leverages the purchasing power of 23 fellow-NRENs. In addition to server certificates, HEAnet is working on making code and user certificates available, and hopes to have more news on this development soon!

Under Construction - FileSender

Following feedback on the trial of HEAnet's first generation Large File Transfer, there commenced development of a much improved service in May 2009. The new project has been developed in collaboration with international partners Uninett (Norway) and AARnet (Australia), and features a slick Flash Web User interface, Federated (EduGate) access for end users, support for very large files, and the ability to invite users outside the federation to send files. HEAnet is now beta testing the service (testers welcome! contact us if you're EduGate enabled) and preparing for final release of the finished product, which is planned to be unveiled in July.

eduroam update



In recent months the number of Irish sites actively participating in the eduroam service as a Service Provider and/or an Identity Provider has increased to 14. An additional two sites are in the process of commissioning a local eduroam service, while a further four sites having expressed an intention to do so in the future. Current information on participants is available on the

national eduroam website (www.eduroam.ie).

To assist with the rollout of eduroam to users, HEAnet has comprehensively documented the process of configuring a number of different wireless clients for eduroam, on various operating systems, and has made this documentation publicly available on the national eduroam website. Documentation for further mobile devices will be added over time. The intention is that participating HEAnet clients' sites can either refer their users directly to this documentation when configuring their mobile devices, or client sites can tailor the documentation and make it available locally to their own users.

IPv6 Update

by Dave Wilson

Dublin Castle hosted the second Irish IPv6 Summit on Wednesday 19th May, where a remarkable line up of speakers spoke about the state of IPv6 and the real world consequences of next year's expected exhaustion of IPv4 addresses.

IPv6 ACT NOW

Opened by Minister for Communications Eamon Ryan, TD, the

agenda concentrated on the practical obstacles in the way of deployment and the consequences and limitations of the workarounds that are being prepared by vendors. Professor Brian Carpenter of the University of Auckland compared the two nations of Ireland and New Zealand, noting that network operators must recognise the importance of adopting IPv6 and presented results of his recent ISP survey. Tim Chown of the University of Southampton talked about challenges faced by wireless deployment of IPv6.

The day's second keynote speaker was Daniel Karrenberg, chief scientist of the RIPE NCC, who joined the session remotely. He and his APNIC colleague Geoff Huston spoke about measurements of IPv6 with the message that IPv6 deployment is improving, although not quickly enough. The event ended with a talk from Peter Wyatt of HP about IPv6 in the enterprise, and a panel session comprising a number of speakers, along with Yves Paindaveine of the EU Commission, Dave Northey of Microsoft, and Dennis Jennings, Vice Chair of the ICANN board of directors talking about how to tackle the implementation of IPv6.

Presentations and videos of the talks are available at www.ipv6.ie.

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http://www.geant.net/Media_Centre/connect/Pages/Connect_April_2010.aspx