

Quarterly Report to the Community

August–October 2011

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Key news in this report

- Updates to the Janet Videoconferencing desktop client and booking facility mean improved functionality, increased ease of use and a wider range of features for users. *Page 5*
- An eduroam companion app, now available through Apple's App Store, has been ported to the Android platform for smartphones. *Page 7*
- The Strategic Briefing Day on 27 September provided representatives of the UK's education, learning and research community with an insight into future developments in the provision of Janet services. *Page 14*

Mission

To provide outstanding and distinctive information and communication services to the UK's research, education, training and cultural communities.

Vision

Through Janet's activities, everyone working and studying in the UK's research, education, training and cultural communities will have services that enable collaborative working and the acquisition and exchange of information, ideas and knowledge.

1. CORE NETWORK

Connections

This reporting period has seen a total of 19 new or enhanced customer connections completed and brought into use:

Further Education

New

- Barry College
- Bournville College of Further Education
- Cornwall College
- Kensington and Chelsea College

Modified

- Bournville College of Further Education
- City of York Council Personal & Community Development
- Coleg Glan Hafren

Higher Education

New

- University of Warwick Westwood Campus

Modified

- University of Sheffield

Research Councils

Modified

- Biotechnology and Biological Sciences Research Council – Rothamstead Research, Brooms Barn
- Science and Technology Facilities Council – Chilbolton Observatory

Self-funded

New

- Hampshire County Council
- South West Grid for Learning Trust x 2

Modified

- Cheshire West & Chester Council
- European Centre for Medium-Range Weather Forecasts x 2
- Met Office
- St Helens Council

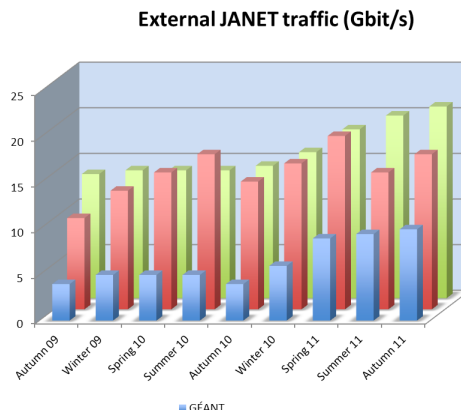
External Network Access Provision and Transmission

Janet access to European NRENs is via a 10Gbit/s connection to GÉANT from the Telecity R-PoP with a 10Gbit/s backup connection from the Telehouse® R-PoP. Access to the global Internet is via two global transit providers, TiNET and TeliaSonera. Each supplier provides four 10Gbit/s connection to two Janet PoPs at Telehouse® and Telecity in London. TiNET also provides 20Gbit/s capacity from Telecity Manchester. Access to UK Internet exchanges is through LINX (London Internet Exchange), via four 10Gbit/s connections from the Telehouse® and Telecity PoP locations. There is also a 1Gbit/s public peering to MaNAP and another 1Gbit/s public peering to MCIX in Manchester.

The primary connection and backup link to GÉANT were upgraded to 20Gbit/s in October and November respectively. Traffic on the link frequently peaked at 10Gbit/s during October. Aggregated peak traffic to the global Internet was back to 15Gbit/s early in October, going up to

A list of all primary sites connected to Janet may be found at: www.ja.net/services/connections/janet-sites/ For information regarding current upgrades or connections, please contact Janet Service Desk at: connect@ja.net or service@ja.net.

17Gbit/s late in October. Total public peering traffic peaks to the UK's Internet exchanges reached 21Gbit/s late in October.



2. IP SERVICES

Electronic Mail Services

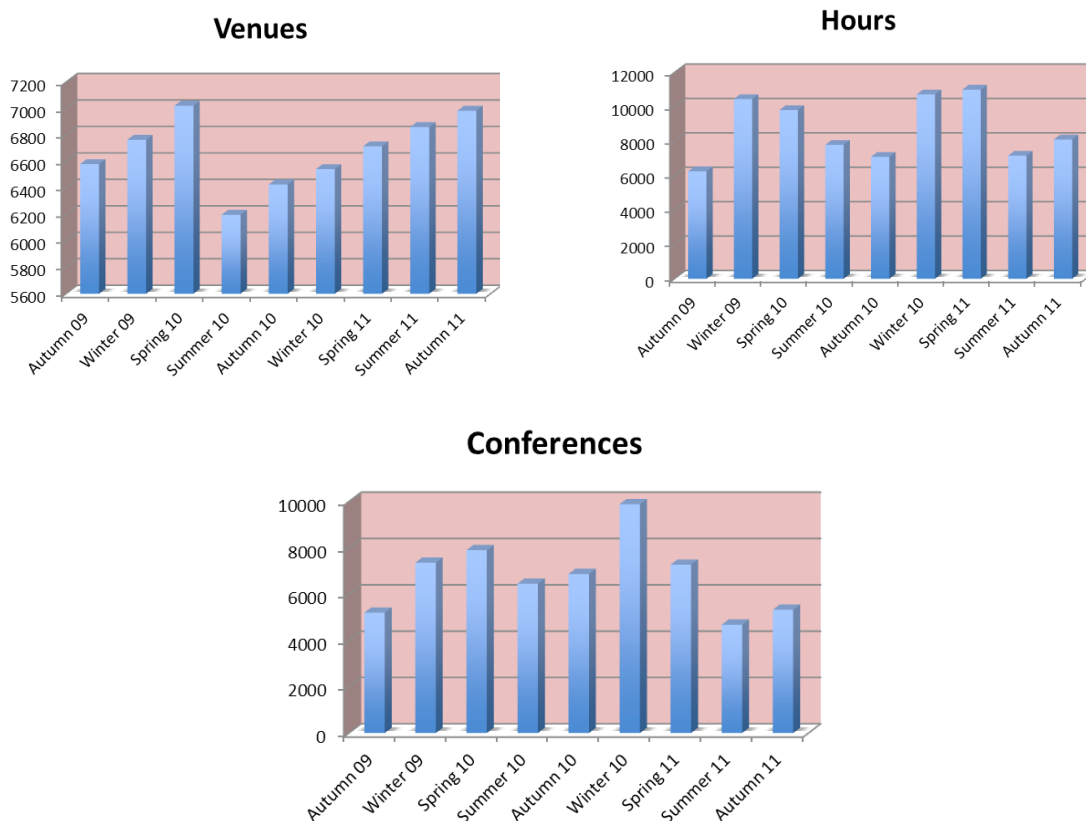
Janet Web Mail [[more information](#)]

The Janet Mailer Shield can help make the mail facilities of a Janet organisation more secure and robust, particularly where the organisation is small or its resources for managing e-mail are limited. The service currently has 20 active recorded clients.

One site joined the service during the reporting period. There are a total of 25 sites using the service.

Janet Videoconferencing [[more information](#)]

There has been growth in the number of registered users, with a total of 7,953 users and 6,983 venues registered to use Janet Videoconferencing. During the last quarter (August-October) this service was used for 5,322 videoconferences which took place over 8,100 hours. Fewer conferences took place than during the previous quarter, which includes the summer holidays, although the average conference duration has increased.



Videoconference for Further Education colleges awarded an LSIS grant

On 5 October a number of FE colleges together with representatives from the RSC and LSIS took part in a videoconference organised by Janet to support organisations who had been awarded a Technology Exemplar grant. The grant was to help colleges run an online event and to encourage more use of Janet Videoconferencing. The colleges involved were Abingdon and Witney, Fareham, Gateshead, City and Islington, and Gloucestershire College.

The presentations covered a wide range of topics, including the possibilities for FE to get involved with videoconferencing at reduced cost, the benefits of reduced travel, and time savings. The videoconference also gave the opportunity for everyone to compare usage and meet other FE colleges involved in similar projects. There was a lively Q&A session at the end which enabled all to benefit from each others' knowledge.

It is planned that Janet and LSIS will hold similar videoconferences in future to involve more FE colleges in future.

New Janet Videoconferencing Desktop Client

The new software PC client for desktop conferencing is currently undergoing beta testing, and is due to be released in January 2012. The Multipoint Control Units (MCUs) have been upgraded to the latest software, enabling a new version of the client to be rolled out in stages. It will offer improved functionality to the existing desktop client, will work with a web proxy, allow content sharing full screen, and give participants the ability to control their audio during a conference.

Booking Service

The registration process for the booking facility has been simplified and a prototype iPad App has been developed by Southampton University students as part of a group design project. This could be developed into a service feature if user feedback is positive and development costs are reasonable.

A Skype to Janet interoperability project has been launched to assess two solutions for integration into the Booking Service.

Ultra High Definition [[more information](#)]

The Ultra High Definition Showcase project continues to progress, with the final elements of the infrastructure to be installed, and continued discussion surrounding content. Showcase events at the participating sites are aimed for the first half of 2012.

Testing and infrastructure upgrades continue for the BBC Super High Vision project, in the run-up to the London 2012 Games.

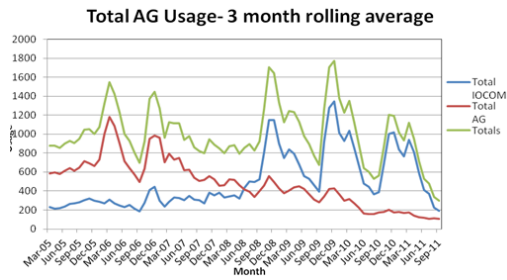
Content Providers [[more information](#)]

Janet has employed a consultant until June 2012 to look at current videoconferencing projects and assess how they can be made sustainable. The consultant will also help in the promotion of events such as the VC User Group Event in December 2011, and the international Megaconference Junior event in 2012, as well as promoting current videoconferencing projects such as the Videoconferencing Partnerships between schools.

Access Grid [[more information](#)]

The Access Grid® is an advanced videoconference system for people to meet in a virtual venue to use audio and video tools and other shared applications such as presentation software. Janet manages a range of facilities to support the use of Access Grid, including virtual venue services and bridging services. It also provides help, advice, guidance and training on deploying, using and managing Access Grid technologies.

To date, there are 799 registered users and 293 nodes. During the last quarter (August-October) this service was used for 228 booked sessions. In addition, there are many conferences held using EVO (3460 meetings) and ICOM (2223 meetings) software.



Nameserver services

Janet is responsible for the administration and registration of ac.uk and gov.uk domain names. This includes setting policy and guidelines and approving ac.uk domains, as well as the name submission and registration procedures for both ac.uk and gov.uk domains.

Primary Nameserver Service [\[more information\]](#)

The operation of nameservers and maintenance of DNS information is an essential infrastructure activity. Janet can provide a basic primary nameserver service for smaller or less experienced customer organisations that do not have the resources to perform one themselves. Staff and resources are freed for other functions and the service is run for your organisation by a technically experienced third party

Five more organisations registered during the reporting period to use the Janet Primary Nameserver service. There are now a total of 131 users of the service.

Organisations using the Janet Primary Nameserver Service can now request access to a secure web portal to undertake administrative tasks to their zone files. This will enable the authorised administrators to edit their resource records whenever they need to, and schedule changes outside of normal working hours

Secondary Nameserver Service [\[more information\]](#)

The service provides an off-site nameserver as a backup to the primary nameservers at Janet-connected organisations. It is available to all organisations with a Janet Primary Connection.

There have been no breaks of service within this quarterly period. At the end of this reporting period the number of organisations using this service had increased to 533.

Off-site Resolver Service [\[more information\]](#)

Resolvers are part of the DNS functions that query nameservers for IP addresses. Janet organisations with very small networks will find it useful to use the off-site resolver set up for their benefit by Janet. A guaranteed resolver service means that an organisation's website will always be readable even if for some reason the organisation is unavailable, and the service is handled on the organisation's behalf by experienced staff.

Three sites joined during the reporting period taking the total number of users up to 134.

eduroam [\[more information\]](#)

The eduroam service managed by Janet in the UK gives users network log-on and Internet access at any eduroam-enabled site using their own username and password. Visitors to Janet sites experience quick, simply authenticated and secure access to the Janet-connected guest network services provided by the visited organisation and, at minimal cost, participating organisations can offer secure Janet-connected guest network services.

Technical news this quarter includes an upgrade of the national RADIUS servers to Radiator 4.8 and further performance-tuning activity. A considerable number of issues, which have now

been resolved, were encountered over the summer. These stemmed from use of certain default settings by participating organisations as they updated their RADIUS server software versions. The initiative to encourage injection of the Operator-Name attribute by visited sites has been a great success, with many participants implementing this during the summer break. The aim of this is to enhance the support of users during problem-solving by making it much easier for system administrators to locate relevant sections in RADIUS logs.

Students from the University of Southampton Group Design Project have successfully ported the existing iOS eduroam companion app (available through Apple's App Store during the next quarter) to the Android platform for smartphones, and have been able to extend its functionality and social network integration.

eduroam is a flagship service to the community and Janet is well placed at the cutting edge of eduroam-related development in the international community. Of particular note in the last quarter have been: the launch of a very successful trial to deliver eduroam on public transport, and the development of an in-house meeting support infrastructure to delivery temporary eduroam access at third party venues.

Engagement with the TERENA TF-Mobility & Network Middleware taskforce over broadening eduroam eligibility was met with strong support, and the consensus re-affirmed the goal of expanding the service footprint and participation. The forthcoming mobile apps were well received.

Web based services

Web hosting service [[more information](#)]

The Janet Web Hosting service provides space on central web servers for Janet customer organisations with primary connections that do not have the resources to support hosting themselves.

Five sites joined the service during the reporting period and a few elected to be removed from the service, as their organisations have developed to the point where they can host themselves. This brings the total number of sites using the service to 76.

Web filtering service [[more information](#)]

The Janet Web Filtering service provides web filtering for Janet customer organisations with primary connections that do not have the resources to support it themselves, or organisations with certain specific needs.

During the past reporting period one organisation joined the service and several organisations that were not actively using the service were removed. A few organisations have elected to have two filtering accounts. There are currently 69 individual organisations using the service.

Network Time Service

The Janet Network Time Service delivers a stable time reference to customer organisations so that clock settings across the whole mesh are very closely synchronised and a single rogue system with the wrong time will have very little effect. A synchronised time service is important for services such as distributed file systems.

One more site registered to use the Janet NTP service during the reporting period, bringing the total sites using the service to 277. Overall, the service is stable and well-used.

3. SERVICES

Connection Services Administration

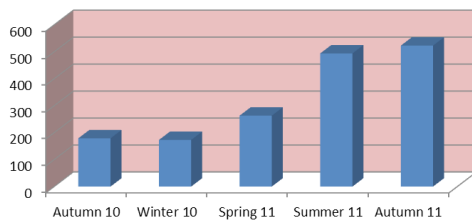
Janet administers the process for the approval and commissioning of new and upgraded connections to the Janet network. This involves liaising with customers to report progress on their new or upgraded connections. All sites connected to Janet must adhere to the [Janet Eligibility Policy](#).

Requests for new or enhanced Janet connections should be made via the Janet Service Desk - service@ja.net; 0300 300 2212

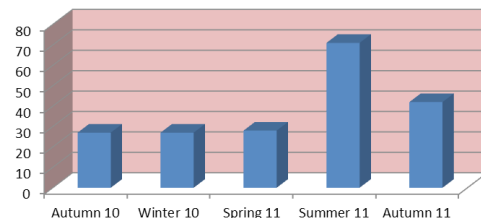
Domain Name Service Administration

Janet is responsible for the administration and registration of domain names under the ac.uk and gov.uk domains.

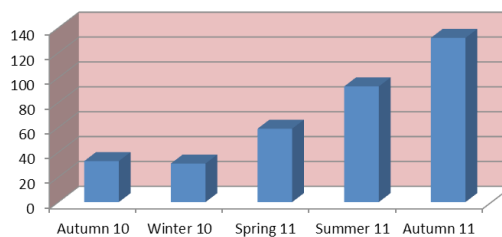
Requests for new or modified domain name registrations



Average rate of monthly applications for new domain names



Average rate of monthly applications for modified domain names



During the reporting period a total number of 523 requests for both new domain name registrations and modifications to existing entries were received. The rate of applications for new domain names averaged 42 per month, with an average of 132 modifications for each month.

IP Address Assignment

Every organisation that wishes to send and receive e-mail, or gain access to the Internet, needs a globally unique address known as an IP address. Janet provides IP addresses for use with a Primary or Sponsored connection.

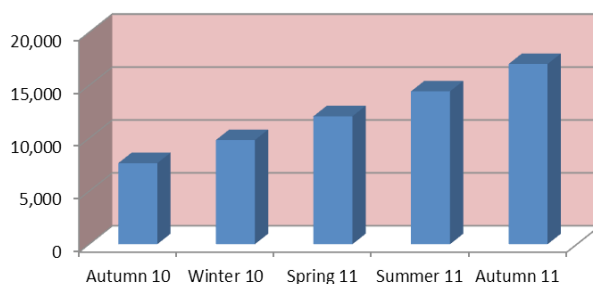
During the reporting period, 14 applications were received and completed, including 6 applications for IPv6 address space

Janet Certificate Service [\[more information\]](#)

The Janet Certificate Service provides a rapid certificate issuing system for all .ac.uk and gov.uk domains, along with the ability to monitor and manage new certificates that are issued.

By the end of this reporting period a total of 17,024 certificates had been issued under the new automated system, which is an increase of 2,586 since the last quarterly report. Take-up is expected to continue at this rate as more organisations begin to use this free system, and as certificates acquired under the old system expire and need replacing.

**Certificates issued by JANET
Certificate Service**



Janet Service Desk [\[more information\]](#)

Janet Service Desk provides the primary point of contact for all enquiries concerning Janet services and requests for information. Any requests or enquiries can be sent to: service@ja.net.

During this reporting period the total number of enquiries received was 1,586. Most of these queries related to the Domain Name Registration Service, requests for Janet connections and

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applications or queries relating to other Janet services.

Three complaints were received. Dialogue has remained open for one of these complaints during this reporting period.

Technology Advisory Services [\[more information\]](#)

The Technology Advisory Service provides impartial advice on voice, wireless and videoconferencing products and technologies. The aim is to promote best practice and maximise the effectiveness of these technologies.

VTAS [\[more information\]](#)

Two products were evaluated in the last quarter:

- AVerMedia AVerComm H300 – a compact high definition videoconferencing system which supports several resolutions up to 720p (1280x720). This product is suitable for desktop use and has a separate high definition pan and tilt camera.
- LifeSize LGExecutive – a single unit comprising: 24" picture monitor, CODEC, camera with integral microphones and dual loudspeakers. This small room system supports a range of resolutions up to 720p (1280 x 720 pixels) at 30 fps.

These and other evaluated products can be found under 'Product Evaluations' on the service home page at <http://www.ja.net/services/video/vtas/productevaluations/>.

WTAS [[more information](#)]

During the last quarter the short paper 'Known Wireless Attacks' was published on the web site. This can be viewed on the service home page.

VAS [[more information](#)]

Enquiries have been received about running VoIP over a Janet-connected network using a third party provider. If this is of interest to your organisation we can provide details of suppliers that have been evaluated by Janet.

Training

Six courses were delivered in this period, with 98% of delegate feedback scores reading good or excellent. The training course schedule has now been confirmed for 2012 and is available on the company website

New courses for 2012 include "Virtualisation fundamentals and Cloud Computing", which will be launched prior to Networkshop in April 2012. The training team are currently developing some online courses to complement the current schedule: it is hoped to have an "Incident Response" module prepared in the first quarter of 2012.

The consultation and research phase of the Skills Review of Technical Staff is now complete and results from the review will be made available in the new year. There was a great response to the review which has enabled the team to develop a skills matrix covering the three main networking roles within Janet organisations. The team is currently piloting a skills workshop, supporting staff development within networking teams.

4. SECURITY & REGULATION

CSIRT [[more information](#)]

This quarter, which included the summer break for the majority of the education sector of the Janet community, saw the usual trend of slightly reduced levels of activity across the network as expected, followed by a general increase in activity post-summer break. The return to studies also brought about a significant increase in copyright complaints and a rise in scanning activity and detection of compromised systems, which again is a fairly normal trend for this period.

Security, Regulation and Policy [[more information](#)]

The Digital Economy Act's provisions on copyright enforcement do not seem to have made much progress. The Government announced that it was not planning to implement powers to order ISPs to block access to Internet locations, following an Ofcom report that concluded the process would be ineffective; in the same week the High Court decided it already had such powers under the Copyright, Designs and Patents Act and used them to require BT to block access to a copyright infringing website. The Initial Obligations Code on the duties of those receiving copyright infringement reports has still not been published.

On wider issues, Janet was invited by the Internet Society to attend a meeting with the Department for Culture, Media and Sport to discuss how to balance regulation of the Internet with retaining its ability to support innovation.

An invited talk on network communities was presented at the SWITCH customer conference. Janet's courses on Managing IT Security and Information Security Policies were presented in Glasgow.

Information about all these activities can be found on the [Legal and Regulatory Blog](#).

5. DEVELOPMENT

Project Moonshot [[more information](#)]

With the software design and implementation phase approaching completion, the Janet Moonshot Technology Pilot was initiated on 11-12 October 2011 at a workshop held at the University of Warwick. The workshop was over-subscribed with delegates from the UK, Europe, Japan and Australia. The technology pilot is expected to last until April 2012, with the goal of validating the technology's utility in production environments. The focus of the Technology Pilot is e-Research users and communities, although the technology is also being tested in other contexts.

The project and technology continues to develop a high profile internationally with presentations being solicited by a number of organisations, including MIT's Kerberos Consortium for their annual security conference in Cambridge, MA. The third Moonshot Developer Meeting was also hosted by MIT in October. Good progress was made on a number of software development issues.

The standardisation of the technology continues to make good progress within the Internet Engineering Task Force. Two of the four core specifications are nearly complete; the remaining specifications should be essentially complete by the next IETF meeting in March 2012.

Roaming & Mobility [[more information](#)]

DOT1X Special Interest Group

The group is currently engaged with providing feedback on Janet's eduroam strategic programme and scanning the horizon for relevant future technologies in this space. A number of interesting apps and web scripts have been shared by group members over the past year and are being evaluated for wider adoption.

Network Access [[more information](#)]

Mobile Broadband

Janet 3G continues to gather a lot of attention in the community and among other NRENs. As a technical solution it has matured in the last few months, and is now 'enterprise-ready' through the feedback from early adopters. The service is well placed to support a planned marketing campaign to drive adoption.

Network Engineering [[more information](#)]

Automated Provisioning

Janet is continuing to investigate solutions for enabling automated provisioning of network capacity in dynamic response to both short- and long-lived requests from the Janet community.

The first production release of the Autobahn provisioning system has been installed and debugged on the Janet local testbed, built on Juniper switches with the help from Autobahn developers. We have begun trialling Autobahn with our Juniper MX testbed and can successfully schedule and configure connections in an automated fashion. The next step will be to provision connections across a multi-domain environment with the GÉANT Bandwidth On-Demand trial partners.

Measurement & Monitoring [\[more information\]](#)

Capacity Planning Tool

Janet's Strategic Technologies division is designing and developing a new Capacity Planning Tool to be used by the Network Projects and Planning Group. The system architecture, hardware design and specification was finalised in the previous quarter. This quarter has seen much development work with the first prototype on schedule to be available in-house by the end of November.

Flow Monitoring

Staff have finished their investigations into the possibility of capturing unsampled flow data and providing a traffic reporting service to Janet-connected organisations as part of that agreement. There are a couple of possible options and these will be described in detail in an internal report.

In the next quarter staff will be looking at the possibility of installing a traffic analysis system that can scale to handle 100% of Janet's flow data.

Support for Research [\[more information\]](#)

Janet Aurora [\[more information\]](#)

Janet was successful in bidding for an additional £400k from the JISC services enhancement programme to sustain Aurora for one more year from 3rd October 2011 to 2nd October 2012. The facility continues to attract funded projects and the total value to-date is £10.7 million from Engineering and Physical Sciences Research Council (EPSRC), Technology Strategy Board (TSB), UK Department for Business, Innovation and Skills (BIS) and the EC. Discussions continue with all stakeholders regarding longer term sustainability, and EPSRC is considering a call to fund research groups to exploit a dark-fibre facility through additional equipment and staff-effort.

Optical Networks [\[more information\]](#)

Technology Tracking

Ethernet transport service monitoring and assurance technologies are being investigated, in particular those described in ITU-T Y.1731 'OAM functions and mechanisms for Ethernet based networks' and ITU-T Y.1564 'Ethernet service activation test methodology'.

This quarter saw the completion of an initial investigation of Y.1731 technology, carried out using Y.1731 probe switches from Overture and CyPortal software from Cyan Optics. CyPortal is a cloud based web service that allows visualisation of throughput and performance Y.1731 data. The trial was conducted in the context of the GEANT JRA1 Task1 Ethernet OAM activity and involved four other NRENs.

Meetings with several vendors were organised to try the new Y.1564 methodology. This quarter saw the completion of a lab trial of SunRise TxR tester which supports Y.1564. The results will be reported internally.

Carrier Ethernet [\[more information\]](#)

The Carrier Ethernet project has concluded. All project reports will be made publicly available on the Janet website in due course.

6. COMMUNITY UPDATE

Documentation

Documents published between May-July 2011

Services

[Services booklet 2011](#)

Strategic Briefing Day

The Strategic Briefing Day on 27 September provided representatives of the UK's education, learning and research community with an insight into future developments in the provision of Janet services. The first speaker was Janet CEO Tim Marshall, who gave a full and frank strategic overview of the last year and looked forward to future opportunities and challenges. Other members of Janet staff to speak were Dan Perry, who briefed delegates on the new Janet Brokerage, and CTO Bob Day who gave an overview of Janet's relationships with other networks (such as PSN) and how these present new opportunities for collaboration. Professor Malcolm Atkinson, Director of the e-Science Institute and National e-Science Centre, looked at some of the challenges posed by the predicted "data deluge" and said that with the right approach it could be more of a data bonanza. Finally Professor Jeff Haywood, Chief Information Officer and Librarian, University of Edinburgh, gave an update on the work of the JISC Transition Group and how this might impact on Janet services.

Presentations from the day are available online at www.ja.net/services/events/2011/strategic-briefing/programme.html.

East Midlands

Enquiries continue for upgrading bandwidth and for additional connections across the region. The significant event this quarter has been the conclusion of discussions related to emPSN, the East Midlands Public Sector Network. The outcome is that Janet will not be participating in this initiative and has now started to establish the future regional requirements in this area.

Scotland

Following the publication and government response to the McClelland Report 'Review of ICT Infrastructure in the Public Sector in Scotland', Janet has joined colleagues from HEIDS and the Scottish Funding Council, in discussions with the Scottish PSN Technical Group.

The Customer Engagement Manager attended a number of meetings with organisations including the UHI, RSC Scotland, the University of Dundee and the Scottish Funding Council. Discussions covered access to Janet services, the Janet Brokerage, BCE, and the upgrade to the Janet backbone.

Janet is progressing with the new network for the Fife and Tayside area.

Janet was represented at the Scottish Learning Festival held at the SECC in September, the largest education event held in Scotland. Keynote speaker Mike Russell, the Education Minister, announced the publication of the Roe report 'Putting Learners at the Centre: Delivering our Ambitions for Post-16 Education' which proposes some far-reaching changes to tertiary education in Scotland.

Janet Aberdeen is currently planning its annual Technical Briefing, which will be held on 24 January at the Doubletrees Hotel in Aberdeen. We hope to have speakers on a variety of subjects including datacentres, eduroam and legal aspects of IT.

A meeting was held with some members of the HE Technical community with a view to holding a Janet Scotland Technical Briefing next year. This is work in progress and any interested parties are invited to contact Frances Neilson at frances.neilson@ja.net.

West Midlands and South West

The Customer Engagement Manager has continued to visit universities, further education colleges, Local Authorities and other Janet-connected organisations in the South West and West Midlands. At meetings with IT staff he discussed future requirements for bandwidth and the need for resilient connections. Considerable interest was shown in the future data centre and cloud services brokerage service. There was also increased interest in eduroam now that guest wireless access at education establishments is starting to be withdrawn. Discussions also took place around how Janet can meet the needs of the areas represented, and these have been fed back into Janet.

The Customer Engagement Manager also attended a South West England Regional Network (SWERN) user group meeting and presented at a SWERN/Janet customer engagement event. The SWERN briefing day was held on Wednesday 26 October, aimed at any Janet customers from the SWERN community. It was an opportunity for customers to gain further understanding of the replacement network set-up and how the migration will be handled.

South East

The Customer Engagement Manager has continued to be involved in the KentMAN/KPSN project and represented Janet at a recent launch day of the new KPSN/Janet partnership. Janet was also represented at the RSC(SE) E-Learning fair at Chichester College, which was held in October.

Meetings with several universities, colleges and specialist organisations have been spent discussing Janet developments, future requirements for customers and Janet services. A great deal of interest continues to be shown in the Janet BCE developments, the Janet Brokerage service and the Janet 3G service. Discussions concerning resilient connections to the network are becoming increasingly prevalent, as are explorations around increased bandwidth for colleges.

NHS/HE Connectivity Project [[more information](#)]

The top priority for resolution is now the appropriate Information Governance model to be used for appropriate Janet user or machine access to N3, as all the streams of activity depend on this. In England, access to N3 requires the Information Governance Statement of Compliance (IGSoC) and Information Governance Toolkit (IGT) to be completed and this will be a challenge for education and research organisations.

Updates to the various deliverables are:

- **Deliverable 3:** integrate the NHS (N3) and academic (Janet) video services (England): this feature is currently in pilot.
- **Deliverable 4:** secure e-mail or wider secure data transfer solution between the NHS and academic networks: the requirements are currently being determined.
- **Deliverable 6:** federated access to web based-resources in a pilot community: a proof of concept proposal continues under development.

Schools

Videoconferencing

Schools have continued to benefit from the variety of conferences and content available through Janet. Over 1,900 schools videoconferences were undertaken this quarter, which included part of the summer break. Of these, the majority continue to be for teaching, tutorials and related educational activities; other purposes include administrative meetings, system testing and quality assurance.

By the end of October 2011 Janet Videoconferencing had managed over 57,500 school videoconferences. The total number of schools sector endpoints registered was over 4,690 by the end of October (as compared with just over 4370 at the end of October 2010).

It is planned that the work being done to improve the desktop videoconferencing client (undergoing beta testing in early November) will enable more schools to use this facility.

Content providers and case studies

Videoconferences were held involving a range of content providers such as the Museum of London, the Met Office and the National Archives. Other notable activities include children's author Alan Gibbons who worked with two schools in Cumbria (Millburn School and Asby School) simultaneously using videoconferencing. A case study from Luton using videoconferencing to promote reading in schools is available from: <http://www.dmec.org.uk/videoconf/case/case1.htm>.

Bedford school has been working with a number of Further Education colleges in Shropshire to enable pupils to learn from the sixth formers and make informed decisions about their futures. The school has also been linking up with universities to attend lectures on Business and Management, and with the Oxford school of Medicine.

Network User Groups

Janet attended the SWERN User Group on 26 October, where it updated the meeting on the latest Janet service updates; the South East User Group on 9 November, where Bob Franklin from the University of Cambridge gave a presentation on 'ipv6 Progress at Cambridge'; and the UCISA Network Group meeting on 29 September, where it updated the meeting on the latest changes to the Janet portfolio.

7. EUROPEAN ACTIVITIES

GÉANT3 activity

The GÉANT eduPKI service continued to operate smoothly with no specific issues.

The Task completed the Trust Profile for the GÉANT Multi-Domain Network Services, which will be used by these services to secure communications between their systems. In September the eduPKI Certification Authority (CA) was successfully accredited under this profile. Work will begin to pilot the use of these certificates imminently.

The Task began development of the eduPKI Training Programme. This programme will include material on: a general overview of the GÉANT eduPKI service; how Registration Authorities should interact with the GÉANT eduPKI service; how certificates should be requested from the GÉANT eduPKI service; and a reference for Certification Authorities wishing to be accredited by the GÉANT eduPKI service.

TERENA General Assembly

The TERENA General Assembly was held on 26-27 October at the BelNet offices in Brussels. The meeting began with presentations by Kostas Glinas, from the European Commission on 'A budget for Europe 2020' and was followed later by a presentation on the GEANT Expert Group by Prof Ziga Turk.

8. FURTHER INFORMATION

This document is copyright the JNT Association 2011.

Janet manages the operation and development of Janet, the United Kingdom's education and research network, on behalf of the combined UK Higher and Further Education Funding Councils represented by JISC (Joint Information Systems Committee).

Further information on any aspect of this report can be obtained through Janet's general enquiry point, the Janet Service Desk. This is staffed from 07.00 to 23.59 Monday to Friday, with voicemail available for calls outside these hours or if staff are temporarily unable to answer a call.

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