janet

Quarterly Report to the Community

May – July 2012

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Key news in this report

- There has been a significant increase in the number of server certificates downloaded – over 2,800 certificates have been issued by Janet via the automated service in this quarter (pg10).

- Janet Brokerage works with Microsoft in order to give customers a better deal when signing up for Microsoft cloud services (pg13).

- A new videoconferencing content directory is now live, making choosing and booking conferences easier (pg5).

- A new bill that makes it easier for websites to moderate harmful content and to resist inappropriate legal pressure to remove content that is lawful has reached the House of Commons (pg14).

- Janet has been successful in its partnership with the BBC and Japanese broadcaster NHK to stream super hi-vision coverage of the Olympic Games, both across the UK and overseas to the USA and Japan (pg16).

1. CORE NETWORK

The Janet core network has been running reliably during the past quarter.

Connections

This reporting period has seen a total of 37 new or enhanced customer connections completed and brought into use:

Further Education
New

The City Literary Institute

Gloucestershire College

Rochdale Sixth Form College

Burnley College

Modified

Hinwick Hall College of Further Education

West Cheshire College

Coleg Llandrillo

East Berkshire College

Langdon College

Ruskin Mill Educational Trust Limited

Otley College of Agriculture and Horticulture

Gateshead College

Ludlow College

The David Lewis Centre

Royal Mencap Society

Bridgend College

Scottish Further Education Unit

Higher Education
New

University Campus Suffolk Ltd

Brunel University

University of Birmingham

University of London x 2

University of East London

Cardiff Metropolitan University

University of Wales Trinity Saint David

Modified

University of Durham

Cranfield University

University of Sussex

University College Birmingham

University of Leeds

Research Councils
New

Biotechnology and Biological Sciences Research Council, Babraham Institute

Modified

Biotechnology and Biological Sciences Research Council, Bioscience IT

Self-funded
New

National Museum of Science and Industry, Manchester

MyScience.co Limited

Northern Grid for Learning

Dudley Metropolitan Borough Council

Modified

Doncaster Metropolitan Borough Council

Further Education (FE)

England
Roll-out of the new network infrastructure in the south west of England is complete, and all college connections have been migrated to the new network.

Scotland
Roll-out of the network infrastructure in Fife and Tayside is complete. An additional infrastructure link from Kircaldy to Edinburgh has been implemented providing improved resilience for connections to the Kircaldy PoP.

External Network Access Provision and Transmission

Access to the European Research Networks
Janet access to other national research and education networks around the world is via a 20Gbit/s connection to GÉANT from its PoP in Telecity Harbour Exchange with a 20Gbit/s back up connection from its PoP in Telehouse North. Peak traffic reached 15Gbit/s in June.

Assess to the Global Internet
Janet access to the global Internet is via two global transit suppliers, Inteliquent (used to be called TiNET) and TeliaSonera. Each supplier provides four 10Gbit/s connections to two Janet PoPs at Telehouse and Telecity in London. Inteliquent also provides two 10Gbit/s connections to Janet PoP in Telecity Manchester. The peak traffic over all the global transit connections was 24.5 Gbit/s in May.

Assess to the UK's Internet Exchanges
Janet is at a number of UK Internet exchange points, namely, the LINX in London and Manchester, Edge-IX in Manchester and IXLeeds in Leeds. The peak traffic over those public peering connections was over 20Gbit/s in May.

In addition to the public peering via the UK Internet exchange points, Janet has private peering arrangement with a few networks including Google, Akamai, Limelight, BBC and BTnet. Aggregated traffic over all private peering connections peaks over 50Gbit/s during the reporting period.
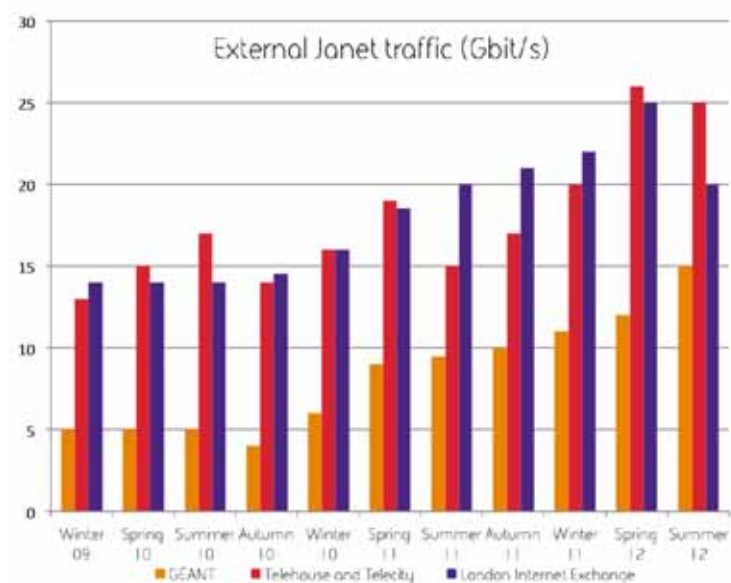
2. IP SERVICES

Janet Videoconferencing

To date, there has been continued growth in the service, with a 6% rise in the number of videoconferences taking place this quarter compared with the same period last year.

The total number of registered users is now 8,677, with 7,419 venues registered to use Janet videoconferencing. During this quarter (May-July) this service was used for 6,412 videoconferences that took place over approximately 9,950 hours.

VC user event November 27 – date for the diary

This year the VC User Group Event is being held at the National Space Centre, Leicester on 27 November 2012. We will hear from those who have overcome technical challenges, champions of videoconferencing at institutions who have been able to save money and enhance teaching and learning. There will also be the Janet awards to those who have excelled over the year. An exhibition and series of lightning talks by a variety of content providers will also be included.

Content providers update

The new version of the VC Content Directory is now live and can be found at http://vccontentdirectory.ja.net/
The range of content is diverse, and is aimed at a variety of Key Stage groups, from KS1 to AS level and beyond. We are looking to expand the range of content providers, and where possible, increase the scope of the existing content providers to other groups.

Videoconferencing on the Janet Community website

We have set up groups for content providers, schools and videoconferencing. This is designed as an information store, a forum for discussion, with the opportunity for the community to give feedback, and ask questions – search for us at https://community.ja.net

Access Grid

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. The Access Grid Support Centre (AGSC) 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 842 registered users and 295 nodes, from organisations representing the research and Higher Education community. During the quarter this service was used for 332 booked sessions.

EVO phone bridge update

The EVO phone bridge number will be changing for UK based Janet users. The new EVO phone bridge number for the UK is 0131 474 4520. We plan to switch off the existing number on Friday 2 November. There will be a period of parallel running until then. It is recommended that users begin to use this new number and remove the previous number from their records.

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

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.

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

Five more organisations registered during the reporting period to use the Janet Primary Nameserver service. There are now a total of 139 users of the service of which 127 are reportable to the JISC.

Janet eduroam

NEN Content Providers

Coventry Centre for Higher Education Development

Canford School

Imperial War Museum

LeNSE Ltd

Northumberland County Council

Higher Education Funding Council for Wales

Royal Borough of Windsor and Maidenhead

Doncaster Metropolitan Borough Council

York City Council

Walsall Metropolitan Borough Council

Wolverhampton City Council

North Tyneside Council

Redcar and Cleveland Borough Council

Off-site Resolver Service

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.

Seven sites joined during the reporting period taking the total number of users up to 148 of which 124 are reportable to the JISC. The non-reportable organisations are listed below.

Non-reportable organisations

Various Janet Services

London Borough of Islington

Monterpoint Ltd

Millfield School

Subtv Ltd

Canford School

Atomwide Ltd (for SEGfL)

Ashridge Business School

Godolphin & Latymer School

UCAS (University and Colleges Admissions Service)

WEA South Wales

Shropshire CC

Queen's College

St Helens Metropolitan Borough Council

Warwickshire County Council

HEFCW

National Museum of Wales

National Museum of Science and Industry

North Lanarkshire Council

eduroam

The eduroam service offered by Janet gives users network logon 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.

Usage and uptake of the service continues to increase, with participating organisations now numbering 195. This comprises most of the UK HE institutions and a growing range of research institutions and FE colleges. Usage of the service has remaining strong despite coming to the end of the academic year and the beginning of the holiday period. This reflects an ever-increasing population of users benefitting from eduroam whether in term time or during vacations.

Technical developments this quarter include the trial replacement of the roaming1 national RADIUS proxy server on RedHat operating system software and with new hardware. This has resulted in an improvement in response time from the European national proxy monitoring system by 44%. The solution will be made permanent, improving the robustness of the service provided by Janet to our participating organisations.

Web hosting service

The Janet Web Hosting service is intended to provide space on central web servers for primary connected Janet customer organisations that do not have the resources to support hosting themselves.

Two sites joined the service during the reporting period and two elected to manage this in-house and have subsequently been removed from the service, bringing the total number of sites using the service to 74.

Web filtering service

The Janet Web Filtering service is intended to provide web filtering for primary connected Janet customer organisations that do not have the resources to support it themselves, or organisations with certain specific needs. The service lets each organisation manage its own list of blocked or permitted URLs by filtering in accordance with the local policy of the organisation, and tailor these filters to its exact needs giving protection against access to inappropriate content on the Internet.

During the reporting period two organisations joined the service. A few organisations have elected to have two filtering accounts. There are currently 71 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 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 some services, such as distributed file systems.

Two more sites registered to use the Janet NTP service during the reporting period. There are a total of 283 sites using the service. Overall, it is a stable and well-used service.

3. SERVICES

Connection Services Administration

Janet administers the procedure 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 Connection Policy.

Requests for new or enhanced Janet connections should be made via the Janet Service Desk.

Domain Name Service Administration

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

During the reporting period a total number of 470 requests for both new domain name registrations and modifications to existing entries were received. The rate of applications for new domain names averaged 56 per month, with an average of 101 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.

32 applications were completed and received during the reporting period, including nine applications for IPv6 address space.

Janet Certificate Service

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.

The new Janet Certificate Service was launched on 18 November 2009. By the end of this reporting period a total of 24,513 certificates had been issued under the new automated system, which is an increase of 2,801 since the last quarterly report. Take-up is expected to continue at this rate as more organisations begin to use this system, and as certificates acquired under the old system expire and need replacing.

Certificates issued by Janet Certificate Service

9,836	12,085	14,438	17,024	19,246	21,712	24,513
Winter 10	Spring 11	Summer 11	Autumn 11	Winter 11	Spring 12	Summer 12

Janet Lightpath

Janet Lightpath is a centrally managed service that helps support large research projects on the Janet network by providing end-to-end connectivity. It includes the UKLight service for fine-grained circuit provision and extends it to include whole wavelengths across the Janet optical transmission infrastructure. The service is available to any eligible organisation with a primary connection to Janet, subject to capacity and budget considerations.

During the period of May to July 2012 we have received four enquiries for new Lightpaths from the Universities of Edinburgh, Essex and York as well as Astrium Services. The Bonfire lightpath at 1Gbit/s for the University of Edinburgh has been provisioned and we expect this to be completed early next quarter.

DANTE has informed us of two moratoriums, one affecting the GÉANT Lambda (full 10Gbit/s wavelength) services lasting from 1 October 2012 to May 2013 and the second affecting GÉANT Plus (155 Mbit/s – 10Gbit/s) from the 15 July 2012 to 31 October 2012, this does not affect any current Lightpath applications we have awaiting authorisation but may affect applications we receive during the next quarters (potentially a delay to provisioning during these times).

Janet Service Desk

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 1,845. Most of these queries related to the Domain Name registration service, requests for Janet connections and applications or queries relating to other Janet services.

Two complaints were received and successfully resolved to customer satisfaction.

Technology Advisory Services

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.

Video Technology Advisory Service

The following videoconferencing codec was evaluated in the last quarter:

AVer HVC330

The AVer HVC330 high definition (HD) conferencing system is designed to be installed either in a small-to-medium sized conference room, or as part of a Roll-about unit.

The system includes a HD camera, dual table microphones, infrared remote control, PC connectivity and dual monitor/ display. A four site on-board Multipoint Conference Unit (MCU) is included together with a memory stick interface to facilitate conference recordings. A more basic unit the AVer HVC130 provides a similar specification but without conference recording facilities.

The CODEC supports conferences over IP networks at connection speed of up to 4Mbit/s with a maximum picture resolution of 1280x720 pixels (720p). Compatibility with other H.323 CODECS is achieved across a range of resolutions from SIF (352x240) to 1280x720 pixels. The quality of the conference is dependent upon the capability of the remote CODEC and the connection speed.

The report can be found in the community library at https://community.ja.net/library/advisory-services/avercomm-hvc330

New Content Provider sessions

One of our technical advisers, Shafiq Latif, will provide 'behind the scenes of your videoconference' sessions for Key Stage 2 pupils. This will allow pupils to find out more about the technology that makes their videoconferences happen. More details about these sessions can be had by contacting vtas@ja.net.

Wireless Technology Advisory Service

Pranay Pancholi at Loughborough University is currently doing a screencast to demonstrate a wireless survey being carried out at one of the halls of residence at Loughborough University. Details of this will be published during the next quarter. WTAS information can be found at the Janet community library: https://community.ja.net/library/advisory-services/ wireless-technology-advisory-service

If you have any wireless related queries or any suggested topics for short documents, please send an email to wtas@ja.net.

4. BROKERAGE

The Brokerage is working with Microsoft on several areas for collaboration. The first area is in clarifying the contracts in place when you buy Microsoft 365 for Education. This will involve the production of functional and legal/licensing document packs for use by the sector in procuring and implementing the forthcoming release of 'Microsoft Office 365 for Education', which supersedes 'Live at EDU', with considerable additional functionality. We are initially working with five institutions who expect to make considerable savings by making the move.

We are also working with BUFDG, UCISA, JISC and UUK to build on their work around the analysis of the cost of institutions' IT services. This helps institutions to adopt approaches, such as benchmarking to offer the best services to staff and students. Through this work, institutions will be able to bridge the gap between financial accounts and the cost of IT.

Leading IT professionals from Janet-connected institutions met with our framework cloud and data centre suppliers at our 'Supplier Speed Dating' event on Tuesday 11 September at Leeds Metropolitan University. The event was well-attended with one supplier saying: "It was a highly innovative event that created the environment for a very focused set of cloud conversations. My team and I thoroughly enjoyed the 'dates' and hope to have a more detailed dialogue with them in due course."

5. SECURITY & REGULATION

CSIRT

This quarter saw the peak of 'Flashback' infections and a move towards stabilisation of effects as site security and network technicians get to grips with the detection and clean up operations.

CSIRT has been trialling new methods of distributing information on malware infections to the community to allow more focus on those needing the assistance of the team.

CSIRT trialled an impromptu online briefing to assess feasibility of this medium to help distribute information and discuss specific security issues at short notice. Response and feedback was positive.

Some Janet connections have been seeing denial of service attacks that attempt to take advantage of DNSSEC packets. The latter part of the quarter has seen a significant increase in numbers of reportedly hacked non-Janet websites that contain Janet user names and credentials. The detection rate has improved due to work carried out by Janet CSIRT to monitor the sources of this information.

The usual levels of scanning for vulnerable systems and weak password management continues to be a threat

Security, Regulation and Policy

Three new legal developments this summer could affect the services provided by Janet and its customers so, along with sector representative bodies, we have responded to consultations to ensure that the research and education networking perspective is taken into account.

The Defamation Bill, which is in its first stages in the House of Commons, aims to make it easier for websites both to moderate harmful content and to resist inappropriate legal pressure to remove content that is lawful. Both could be helpful to Janet customers: those who wish to moderate third party provided content as well as those who (unlike commercial ISPs) are required by law to protect free speech by their members and guests.

The Government has also published a draft Communications Data Bill for consultation as preparation for a full Bill later in the Parliament. The draft Bill appears to create considerable uncertainty for all organisations on how they may be required to design and operate their networks; it also seems to create numerous alternatives to the current clear process for the police to obtain communications data under section 22 of the Regulation of Investigatory Powers Act 2000. Our response stresses the need for a clear and proportionate approach in both areas.

Finally, the implementing Code for the Digital Economy Act's provisions on copyright enforcement has been published, with a helpful commentary from Ofcom on the position of universities, colleges, libraries and other 'public intermediaries'. This has not completely resolved the issues for organisations that may obtain internet connectivity from commercial ISPs but for those connected via Janet it seems to be a clear instruction to continue with our current effective approach to copyright enforcement under the Janet AUP.

A number of presentations have been given this quarter: on cloud security at the TERENA Networking Conference and in a JISClegal webcast, on cookie law in a Janet webcast ,and on experiences with social media at the TERENA Conference.

Our training courses on Managing IT Security and Information Security Policies were delivered in London.

6. DEVELOPMENT

Access & Identity Management

As part of the JISC transition, Janet, JISC Innovation and JISC Collections have begun a review of all JISC-funded access and identity management products, collaborations and development activities. A small group of colleagues from across JISC will produce a proposal for, firstly, the Transition Oversight Group and then the new JISC Board to identify a joined-up approach to AIM that ensures maximum value for customers and partners.

Project Moonshot

Following an OJEU procurement, Janet has selected a preferred supplier to provide a Moonshot code development, maintenance and support service for two years with an option to extend for a further two years. It is hoped contracts will be signed by mid-August to enable the next stage of development to continue to allow Janet to meet a direct customer need that is of strategic benefit and will complement existing JISC/Janet Access and Identity Management services.

Network Access

Mobile Broadband
The technical capabilities of the product have been developed substantially in this period, implementing a number of new EAP types. These were trialled against testing infrastructure provided by Janet.

Network Engineering

IPv6
Janet participated in the World IPv6 Launch on 6th June 2012 (see http://www.worldipv6launch.org/ for more information). No specific problems with the network were reported.

IP Multicast
The BBC streamed every Olympic event live across the Janet multicast peering. This was announced on the JISCmail multicast list with several multicast-capable institutions enjoying the broadcasts. The BBC also streamed HD versions of the multicast channels. During the opening weekend, these multicast feeds stressed the CPU on our router that connects to the BBC, resulting in dropped packets. Since the same router was being used to stream the Super-High Vision (8K) video, the decision was made to temporarily disable the multicast streams. These were later enabled on a different router with no further problems.

Automated Provisioning

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

Janet is providing Bandwidth-on-Demand capability to the BonFIRE project via the Janet Automated Provisioning testbed, which connects to the GÉANT BoD pilot service.

A Lightpath has been established between the EPCC (Edinburgh Parallel computing Centre) and our Lumen House testbed. The BonFIRE project will be able to dynamically provision capacity within this Lightpath and then across the GÉANT BoD testbed, by using the Autobahn portal. The BonFIRE developers are currently working on aligning their software with the most recent version of the Autobahn software.

Applications Development

Videoconferencing

The preparations for the re-procurement of the Videoconferencing Service are continuing. During this time period the procurement strategy has been finalised and gained approval from Janet management. A Technical Architect consultant is being sourced to assist with the initial service technical design and to develop the procurement PQQ and later operational requirements documents.

Streaming Server Network

The Janet Streaming Server infrastructure consists of three servers and a load balancer distributed between sites in Manchester and Harwell. It has capacity for up to 3000 HD streams and can be up-scaled if required. The infrastructure is supported by Streaming Wizard.

The streaming infrastructure was used by a project between the Royal Shakespeare Company, Ravensbourne and Cisco to enable approximately 200 schools to watch the performance of I, Cinna, and participate in the live Q&A session following the show. The live stream was a success and provided HD and SD streams to schools. The website enabled the students to submit questions back to the Actor and producer.

The video and submitted poems from students can still be viewed on the project site here: http://icinnathepoet.org.uk/ During this period, five NASTA TV Stations also registered to use the service infrastructure.

Super High Vision BBC and NHK Project

After an intensive period of testing and detailed analysis of the network traffic, the two Janet connected Live sites for Super Hi-Vision were signed off and accepted by the BBC and NHK. Clydenet and YHMAN worked closely with Janet to achieve a very low level of packet loss across both connections.

The live video testing began and the venues were fully prepared for the live pubic showings during the games. Public shows started in London, Bradford and Glasgow one week before the games and the BBC and Janet tested and refined the support systems and processes around the delivery of the SHV 'channel'. The opening and closing ceremonies and some of the swimming were streamed live to all sites. Regular hourly shows provided highlights from the previous days sporting footage. Janet staff worked very closely with the BBC R&D team during the reporting period and beyond, and offered on site support during all the live SHV events.

The events were very well attended and the footage and technology created a huge level of interest resulting in significant media coverage.

Measurement & Monitoring

Capacity Planning Tool
The Strategic Technologies team at Janet has designed and developed a new Capacity Planning Tool to be used by the Network Projects and Planning Group. This 12 month ST project concluded at the end of July. The successful proof-of-concept monitors and reports on all core links, peerings, regional network entry points and all Janet-managed regional networks together with their customer connections. This work will now carry on within the Operations division but ST will continue to provide assistance where appropriate.

Flow Monitoring
A major component of the Janet-wide traffic monitoring and analysis trials has successfully concluded. We have worked over recent months with Xangati to test a proof-of-concept of their system, which has proved both scalable and capable of the performance we need, but is not yet a perfect solution. We will report back to them, and continue to explore other candidates.

Support for Research

On 21 June, Janet held a research-focused meeting at the Royal Society in London, where 50 people joined Janet's research support team to hear about the latest news affecting the research community. The attendees came from a wide range of scientific disciplines, including particle physics, high performance computation and molecular biology. The event gave members of the Janet community an opportunity to share developments and opinions on networking and technology related topics. More details are available on the community website at https://community.ja.net/groups/janet-research

E-Infrastructure
Janet continues to support the BIS e-Infrastructure initiative via the secondment of Paul Lewis into the secretariat two/three days a week. This is expected to continue till late October 2012. In addition to the resource support, requirements gathering has finished for the sites listed as strategic research facilities related to Janet's allocation of e-Infrastructure funds.

Janet Lightpath

A number of the lightpath enquiries resulting from the e-Infrastructure programme are now in full service and implemented. Alongside this an updated commissioning and decommissioning process is being drafted. Specifically the decommissioning process will allow a more proactive service to be delivered, and reduce potential resource wastage.

Optical Networks

Technology Tracking

The investigation of Ethernet transport service monitoring and assurance technologies is ongoing. Janet is participating in the new GÉANT3 Year 4 sub-activity 'Service Assurance and Monitoring' which was approved by the GÉANT3 Board and commenced at the beginning of April. The pan-European testbed has been designed and successfully established. Preliminary tests across this testbed, consisting of Ethernet OAM sessions, have been conducted successfully.

7. COMMUNITY UPDATE

The community groups for the regions have been established and are in the process of being populated; search at https://community.ja.net

East Midlands & East of England

A busy quarter with several key themes emerging – increases in bandwidth and additional connections to provide some resilience for both HE and FE. The annual round of e-fairs by JISC RSC's were attended which afforded a useful opportunity to meet the sector, as did meetings of SERJUG and EMMAN. There was interest in Janet Brokerage from several colleges and the IWM which the Brokerage team are following up. The Eastern network is coming to a review period of the contract, considering the extension options. Janet and EMMAN are continuing the transition of the network and will be entering a reprocurement phase in due course and participation in the project boards is being arranged. The British Library is planning to implement eduroam which will improve facilities for visiting academics at their two main sites as well. Janet is also working with the British Library to enable a project that will take a snapshot of the Internet for archiving purposes over the next three months.

Scotland

Janet has been in touch with the University of Aberdeen to discover more about their datacentre facility. The partners involved in this initiative include the University of Aberdeen, Robert Gordon University and Aberdeen College. They have set up a partnership known as NESS – North East Shared Services.

June was a very busy month for conferences, with the Customer Engagement Manager attending the Scottish Government 'SWAN' event, the RSC Annual Conference, and Scotland's Colleges Annual Conference, RSC Mobile Learning event and the JISC BCE event.

The proposed Janet Scotland event was postponed as a result of the Scottish Government conference. We hope to rearrange this for later on in the year.

South East

FEIs and HEIs continue to be interested in increasing their connections and are also placing greater emphasis on resilient connections to Janet. The Janet Certificate Service remains popular within the community and interest in the Janet brokerage is increasing as many FEIs look towards cloud based services for email.

The Customer Engagement Manager represented Janet at the Janet Strategic Briefing and also conducted an online webinar promoting eduroam to the FE community.

London

The CE Manager for London has continued a programme of customer visits during the period to include HE, FE as well as regional groups such as the LMN Board and the London RSC.

Janet and the London RSC put on an event for FE customers in the region to update them on Janet services and products designed to help the achieve efficiencies and was well attended with 25 organisations represented from FE and small HEIs.

The CE Manager was also involved in bringing together a number of the regions organisations to help gain further understanding of the their requirements for cloud and data centre services to help shape the work of the Janet Brokerage going forward.

North East and Yorkshire and Humber

During the quarter meetings were held with Durham and Hull Universities and attendance was made at the YHMAN board meeting to provide a Janet update to it's members on NHS links and e-infrastructure. A programme of meetings with FE customers was also undertaken covering ten colleges across the North East and Yorkshire and Humber areas and attendance at an RSC Northern event at Hartlepool College. Support was also provided to Sixth Form College customers via the Sixth Form College Forum Annual Conference.

Wales

Engagements have continued in Wales across all sectors with the majority of sites being visited as well as a significant growth in engagement with key strategic stakeholders from across Welsh Government and the wider sector. The Customer Engagement Manager spoke at both the FE and HE annual IT Conferences, outlining changes in Janet services, Janet6 and the Brokerage offerings. Following requests from the community, Janet will be liaising with the Welsh Government's Data Centre project to provide clarity and alignment on the offerings available to the community through the Brokerage and Welsh Government offerings.

Janet has also been coordinating, on behalf of the community, the gathering of requirements for the next generation of the PSBA Public Sector Network. This work has involved detailed meetings with key sector groups and individual organisations, including research Pro-Vice Chancellors, to discuss network requirements in the three to seven year timescale.

Network User Groups

Janet staff attended the South East and London Janet User Group on the 16 May where Mark O'Leary gave a presentation on Janet 3G and Mobility Developments. The group was able to question Mark in detail on various aspects of his presentation. The next meeting will take place on the 14 November.

Janet staff also attended a meeting of the SWERN User Group on the 23 May. This was the last meeting of the SWERN User Group as the regional network is now managed by Janet. This meeting will reconvene in October as the Janet South West User Group with Neil Tanton as Chair. At both meetings Janet staff updated the attendees on the latest updates to the Janet service offering.

NHS/HE Connectivity Project

N3 JANET Gateway Phase II

This project has not progressed significantly during this reporting period and awaits a Sponsor level meeting to determine how it proceeds given the reorganisations happening at the Department of Health. The appropriate Information Governance model for bidirectional access between N3 (the NHS network in England and Scotland) and Janet remains the key next step. In the meantime work has started on making the existing N3 network Public Services Network (PSN) compliant. Separate N3 re-procurement projects are also underway in England and Scotland.

NHS-HE Forum

There was a well-received NHS-HE Forum on 30 May in London and the next will be in November at a date to be agreed. The NHS-HE Forum and connectivity project website has been transferred to a Group on the new community Janet website at https://community.ja.net/groups/nhs-he-forum-connectivity-project and the presentations are available there. There will be a Scotland NHS-HE Forum meeting in Edinburgh on 16th October 2012. Ron MacDonald will be the keynote speaker. Ron is Head of National Telecommunications Service for NHS National Services Scotland and lead for the N3 re-procurement in Scotland and has been asked to be the vanguard for the Scottish response to the PSN.

NHS-HE Connectivity Best Practice Working Group

Following the resources produced by this group for the NHS-HE community last year, the Group is being reconvened to look at new opportunities for shared practice with a meeting on 10th September 2012.

Training

16 courses (with 183 delegates) were held in this period, with 97% percent of delegate feedback scores reading excellent or good. The demand for in-house courses has seen a dramatic rise in the last few months, with a five-fold increase in the number of courses being run. Of particular note is the increased demand for the IPv6 Fundamentals course. New dates have been added to the training course schedule, which is available on the Janet website (www.ja.net/training).

Our programme of online briefings has continued with Andrew Cormack presenting an update on Cookie Law, Guy Sudron and Canterbury College giving an overview of eduroam. During July there were also two briefings on Janet6 explaining how community requirements have been translated into design and procurement of the network. The format and style of the online briefings have been very successful and we have had over 300 participants at these events. A follow-up briefing on Janet6 will be held in October and we are currently planning future topics so would be interested to hear any feedback or requests for topics to be covered in this way.

We are looking forward to piloting two live online courses in the autumn, the first covering information security policies and the second on networking tools. Further information about these courses and how to become involved in the pilot will be available on the web site.

Details of current courses and other events is available at www.ja.net/training

Events

Cookie Law – Online briefing
13 June

World class network – world class research
21 June, Royal Society, London

Janet strategic briefing
3 July, Lakeside Centre, Aston University

Janet6 - Online briefing
From requirements to evolution
5 July

Schools: Videoconferencing

Schools have continued to benefit from the variety of conferences and content available through the Janet service. A total of 2,229 videoconferences were undertaken this quarter.

By the end of July 2012 Janet Videoconferencing had managed 65,874 school videoconferences since August 2004. The total number of schools sector endpoints registered was 4,757 by the end of July (as compared with 4,580 at the corresponding time last year).

VC User Group event – 27 November 2012

This year the VC User Group Event is being held at the National Space Centre, Leicester on the 27th November 2012. The Space Centre is one of our key content providers, and we are looking forward to them hosting this exciting event. An exhibition and series of lightning talks by a variety of content providers will also be included. The event will be streamed live to the community- details to follow. Why not join our new community group to keep up to date with event developments. Join the group at https://community.ja.net/groups/vc-user-group-event-2012

VC Partnerships Group

UK VC Partnerships' Group was established in September 2011. The aims of the group were to meet three times during the academic year 2011-12 (via videoconference), recommend ways to improve the current partnering process online, to form new partnerships both national and international, review online communications tools, and share good practice across the UK using the Janet Videoconferencing service. The group consists of teachers, advisors drawn from across the UK. The manager of the Janet Videoconferencing service, Richard Sedding has agreed to take over the chair of this group, as Janet looks to expand the range of Partnership opportunities available.

8 INTERNATIONAL ACTIVITIES

In May Janet participated actively at the TERENA Networking Conference, with presentations being delivered to several audiences. Janet partnered with a commercial vendor, PowerFolder, to demonstrate the value of Moonshot-based authentication for 'cloud'-based data storage services.

Janet plays a leading role within GÉANT, the pan-European research & education network. Owing to a change of roles within Janet, responsibility for the operation and development of GÉANT's middleware services has passed from Janet to NORDUnet.

The eduGAIN service, Janet's most significant contribution to GÉANT, shows significant promise; after 12 months of operation, it now connects 19 access management federations in Europe (not including the UK, subject to on-going discussions with the federation operator), Asia and both North and South America. Janet's leadership in mobile data services is yielding promising initial results in GÉANT's 'Mobile Connectivity Feasibility Analysis', which is presently exploring the business case for a pan-European mobile data service.

GN3, GÉANT's present project vehicle, will conclude in 2013 and work on defining the successor – GN3plus –started in March with the establishment of the GN3plus Assembly. This Assembly is likely to include all existing GÉANT partners, plus other emerging NRENs on the Asian/European periphery. GN3plus is expected to have a two-year duration, before being succeeded by GN4 in 2015.

Janet continues to pursue discussions of areas of common interest bilaterally with other NRENs, visiting other NRENs including RENATER (France), SURFnet (The Netherlands), BELNET (Belgium), AARNET (Australia) and REANZZ (New Zealand). Janet hosted DANTE (which manages GÉANT) and Internet2 (USA) in May and June respectively.
Janet has continued to invest significant effort in supporting institutions with their international connectivity requirements. Challenges persist in the provision of connectivity within some of the host countries, both in terms of the quality and cost of provision. Janet is working with these customers to identify the most appropriate solutions.

TERENA General Assembly
A meeting of the TERENA General Assembly took place on the 24-25 May. The meeting received a report from the Technical Advisory Committee which had met in Reykjavik earlier in the week. There was a significant amount of time hearing about other NRENs experiences of working with the EU Structural Funds and this was followed by a significant amount of discussion. The following morning began with a discussion about the experiences of a few NRENs with Public Sector Networks. Henry Hughes from Janet updated the meeting on the Janet experiences of working with the Public Sector networks.

The GA discussed its role in the context of Horizon 2020 and agreed that this would be taken forward as part of the TERENA 2013 Activity Plan.

As Miroslav Milinovic term as Vice-President Conferences had come to the end of a successful period in this post Helmut Sverenyak was appointed as the new Vice-President Conferences. Marko Bonac was appointed as the TERENA Treasurer.

9 FURTHER INFORMATION

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Janet manages the operation and development of Janet, the UK's research and education 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.

Enquiries may be made by e-mail, telephone, fax, post, or in person, as follows:

email: service@ja.net
Telephone: 0300 300 2212
Fax: 0300 300 2213

Post: Janet Service Desk, Lumen House, Library Avenue, Harwell Oxford, Didcot, Oxon OX11 0SG.
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