janet
Quarterly Report to the Community

November 2010-January 2011

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Key News in this Report

- JANET is supporting international astronomical research with the go-live of the international 10Gbit/s lightpath between the LOFAR radio observatory at Chilbolton in Hampshire and the university of Groningen in the Netherlands. *See page 11.*

- As one of the longest running successful shared services and to mark over a quarter of a century's operation, JANET(UK) this quarter published the first official history of the network. *See page 17.*

Mission

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

Vision

Through JANET(UK)'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 28 new or enhanced customer connections completed and brought into use:

Further Education

New

- Amersham and Wycombe College
- Doncaster Metropolitan Borough Council

Modified

- Association of Colleges
- Bradford College
- Cleveland College of Art and Design
- Coleg Llysfasi
- Deeside College
- Gloucestershire College of Arts and Technology
- National Institute of Adult Continuing Education

Higher Education

New

- Coventry University
- Glasgow Caledonian University: Fashion Street Campus
- Royal Welsh College of Music and Drama
- University of Worcester: Infirmary Walk Campus
- University of York

Modified

- Guildhall School of Music and Drama
- University of Wales
- University of Wales, Lampeter
- York St John University

Research Councils

New

- Biotechnology and Biological Sciences Research Council
- Medical Research Council: Porton Down
- Natural Environment Research Council: CEH Wallingford

Self-funded

New

- Dudley Metropolitan Borough Council
- European Bioinformatics Institute
- National Museum of Science and Industry
- Synetrix Limited: Managed Services for JANET users
- Thurrock Council

Modified

- City of Bradford Metropolitan District Council: Personal & Community Development
- Darwen Academy Trust

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

FE

Following reprocurement of the regional network in the East of England, all 31 FE colleges have successfully migrated to the new network infrastructure.

Core Network

As part of the planned programme to increase the core capacity to meet usage demand over the next few years, the end of 2010 saw a considerable amount of maintenance work on the core network in preparation for the deployment of 100Gbit/s technology.

The core network ran without service interruption during the reporting period. The resilience of the network ensured that even though a number of fibre breaks affected paths to a number of Regional Networks, these did not disrupt the service.

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. JANET access to the global Internet is via two global transit providers - TATA Communications and TeliaSonera. TiNET and TeliaSonera each provide four 10Gbit/s connection to two JANET PoPs at Telehouse® and Telecity in London. JANET access to UK Internet exchanges is through LINX (London Internet Exchange), via four 10Gbit/s connections from the Telehouse® and Telecity PoP locations.

Traffic to GÉANT peaked at 6Gbit/s during the reporting quarter. Aggregated peak traffic to the global Internet was about 16Gbit/s during the reporting period, and aggregated gublic peering traffic to the UK's Internet exchanges was around 16Gbit/s. The latter traffic seems down compared to summer 2009 due to an increase in private peering – these figures are for public peering only.

External JANET traffic (Gbit/s)
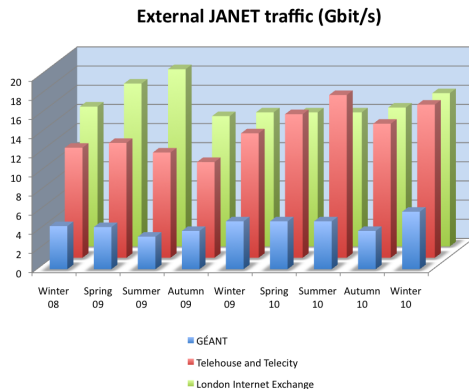
2. IP SERVICES

Electronic Mail Services

Mailer Shield [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.

Membership of this service rose slightly during this quarter, with one more organisation joining and taking the number of active recorded clients of the service to 21.

JANET Videoconferencing [more information]

Videoconferencing

The number of videoconferences and videoconferencing hours rose this quarter, while the number of venues fell slightly. (This can happen for two reasons: administrators themselves remove them from the system because they are not using their venues or wish to replace them; and venues become de-registered if they do not pass their Quality Assurance test.)

To date, there are 7,162 users and 6,542 venues currently registered to use JANET Videoconferencing. During the last quarter this service was used for 9,881 videoconferences which took place over 10,720 hours between 1 November and 31 January. November was the busiest month overall with December being quite busy too, considering that this is a short month on the academic calendar: the December figure is substantially up on a year ago as stats for the Desktop Check tool are included, and this system was not available in December 2009.

Number of videoconferences

Number of videoconferencing hours

Number of videoconferencing venues
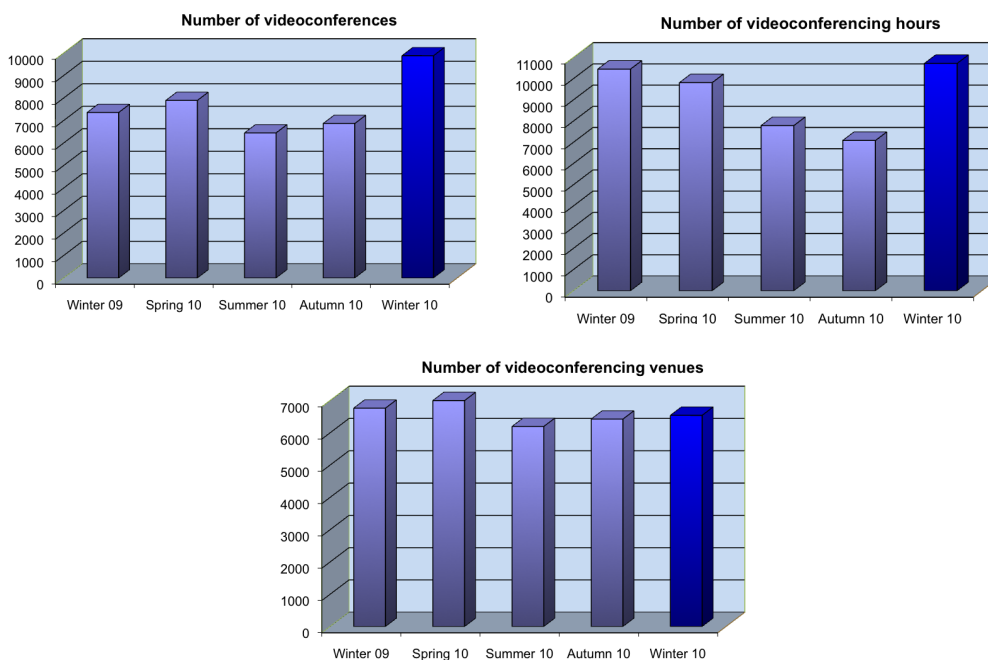
The Desktop Check (Beta) tool, which lets users of the Desktop tool check their audio and video before a session without having to register or log into the Booking Service, continues to be widely used.

Various projects are in progress that will result in improved capacity, and enhance the reliability of the service and the experience and convenience of users.

A small trial allowing users to launch or book a videoconference with a SIP (Session Initiation Protocol) client, as well as the current H.323, will be available very soon, potentially increasing the options open to users. Work is also in progress to enhance the videoconference management tool; when finished, administrators of a venue will be able to manage an event without the need for them to be bookers of the conference.

The Collaboration Tools Trial, evaluating the TANDBERG See and Share collaborative facility, was officially closed at the beginning of this year after Tandberg decided to discontinue its use and eventually its support of See and Share. Thank you to all those who took part. On behalf of the community, JANET(UK) intends to continue looking into collaborative tools for potential future use with JANET Videoconferencing and will announce the trial of any products it considers suitable.

Access Grid Support Centre (AGSC) [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. The 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.

Usage of AGSC continues to rise. At the end of January 2011 there were 755 registered users and 420 nodes.
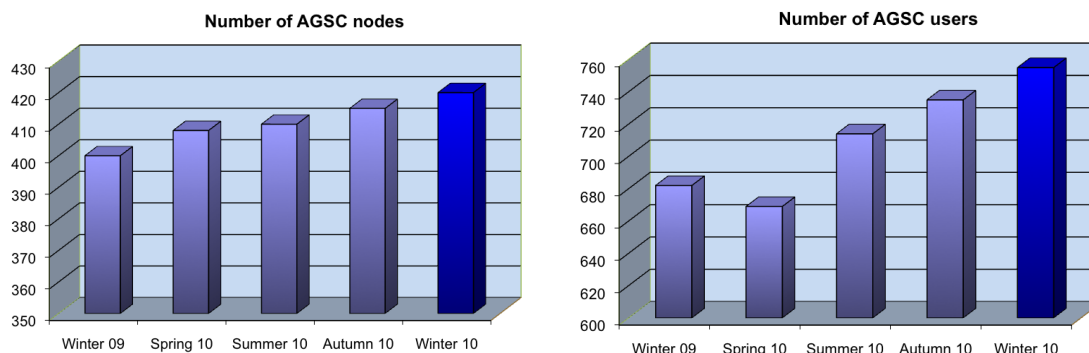
Two events introduced new users to AGSC this quarter: a demonstration of AGSC supported technologies to MHRN (Mental Health Research Network) users based in Nottingham in November, and an introduction to AGSC services to inform new users of the support available.

An AGSC roadshow event in Sheffield University on 27 January 2011 was well received, with very positive feedback from all the delegates. The roadshow was attended by 13 delegates in Sheffield, 14 delegates in Manchester and a number of delegates in remote locations including Kings College London and Newcastle MHRN.

Visimeet (the next generation collaboration software from IOCOM) users can now connect to AG venues in the traditional manner, following an update to the server that adds a Join button.

Nameserver Services

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 JANET 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.

An optional web interface now allows organisations to manage their resource records directly. This is extremely useful if web traffic must be redirected to an alternate site: for example, to have continued web presence under a business continuity plan.

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.

A slight increase takes the number of organisations using this service to 532, after a quarter with no breaks of service.

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(UK). The service continues to run reliably and effectively. 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.

Two sites joined during the reporting period taking the total number of users up to 118.

Roaming Service [more information]

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.

Uptake continues to be promising, with participating organisations now numbering 135.

A number of documents for users were completed this quarter, including one relating to adopting eduroam as the single primary networking service, a move that is convenient in terms of administration for both home and visited sites, and which frees up bandwidth for users' network traffic. Migrating to a single primary network service can appear a daunting task at first but the benefits are substantial.

Also issued was an advisory notice relating to problems that organisations with Microsoft RADIUS servers may potentially experience, arising from implementation of advanced capabilities available on other vendors' RADIUS servers. JANET(UK) has been able to determine the cause of the problem and is taking measures to eliminate.

**Number of organisations using
JANET's eduroam infrastructure**
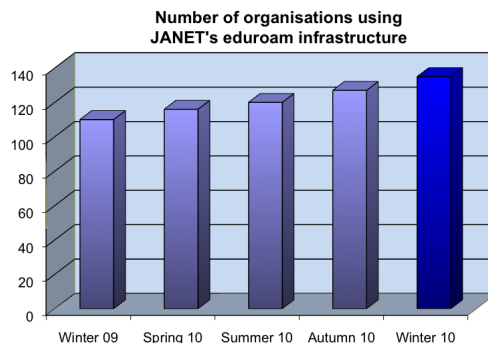
The 'JANET Roaming Fundamentals' course continues to be very popular and will shortly be complemented by an advanced 'Implementing eduroam' course which is currently in the final stages of development.

UK Access Management Federation [more information]

The federation provides a framework for organisations in the education and research sector to allow controlled access to licensed material and network-based resources, while also protecting personal data associated with their users.

Membership of the federation continues to grow with 844 members at the end of January, made up of organisations from UK education sectors and of commercial organisations providing online services to these sectors.

Total UK federation membership
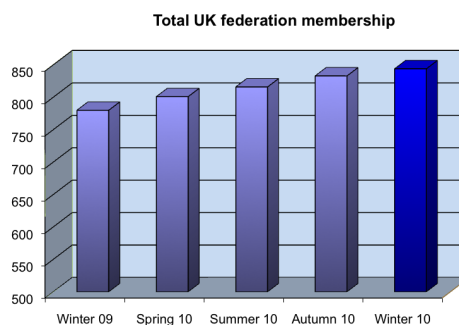
The WAYF interface now features an incremental search box that lets users bypass the current drop-down list for the selection of home organisation. As the number of identity providers in the full list has grown to over 650, this is expected to deliver a significant benefit to users of the discovery service.

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.

Showing that the service is best suited for the needs of small organisations, sparing spare staff and resources for other purposes, this quarter 2 organisations felt able to leave, having been supported to the point in their business development where the service was no longer suitable for their requirements. Seventy eight sites are currently using the service.

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. The service lets each organisation manage its own list of blocked or permitted URLs by filtering in accordance with its own local policy, and tailor these filters to its exact needs, giving protection against access to inappropriate content on the Internet.

During the past reporting period 5 organisations joined the service and, to free up resources for other members, several organisations that were not actively using the service were removed. A few organisations have elected to have two filtering accounts, to meet the different needs of different sets of users. There are currently 81 individual organisations using the service.

3. SERVICES

Connection Services Administration

JANET(UK) 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.*

> A list of all primary sites connected to JANET may be found at: http://www.ja.net/janet-sites/. For information regarding current upgrades or connections, contact JSD at: connect@ja.net or service@ja.net.

Domain Name Service Administration

JANET(UK) is responsible for the administration and registration of domain names under the ac.uk and gov.uk domains.

Domain Name Registration Service

During the reporting period a total number of 173 requests for both new domain name registrations and modifications to existing entries were received. The rate of applications for new domain names averaged 27 per month, with an average of 31 modifications for each month.
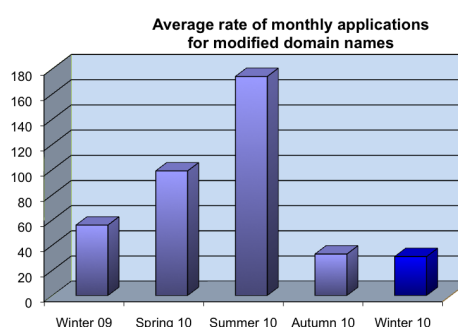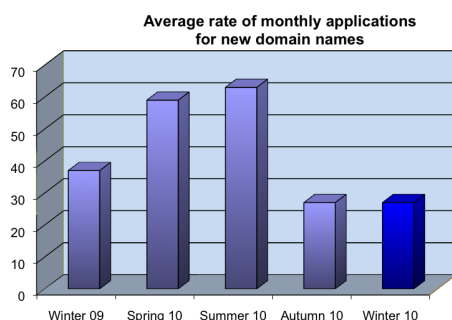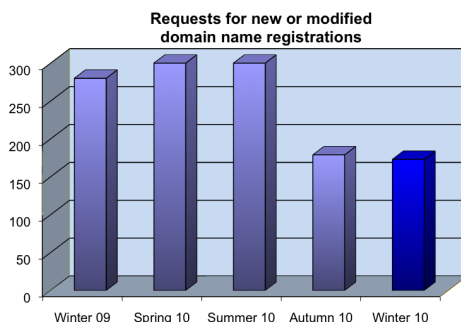
Figures continue to follow the typical yearly pattern of a low start of year gradually building up to a summer peak. This year's summer figures are likely to be much lower than last year's highly untypical summer peak, caused by maintenance work by the Northern Ireland Civil Service which resulted in JANET(UK) having to process almost double the average number of modifications usually processed within this period.

JANET Lightpath [more information]

JANET is supporting international astronomical research with the go-live of the international 10Gbit/s lightpath between the LOFAR radio observatory at Chilbolton in Hampshire and the university of Groningen in the Netherlands. The connection enables the observatory to coordinate with other observatories across Europe that create the LOFAR radio telescope and has resulted in images of the bright radio quasar 3C196, located in a galaxy so distant that light takes 6.9 billion years to reach the Earth.

It is expected that just the Chilbolton site will be producing seven petabytes of raw data every year once LOFAR is fully operational. As well as the sheer quantities of astronomical data that must be passed on, because LOFAR does not rotate like a conventional radio telescope and must be configured electronically to study chosen areas of the sky, further vast amounts of computing power are required to keep its antennae synchronised to each other across countries so that the data gathered can be coordinated and formed into meaningful images. All this must travel down the JANET link without interference.

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, 16 applications were received and completed, including 3 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.

The JANET Certificate Service remains hugely successful. By the end of this reporting period a total of 9,836 certificates had been issued under the new automated system, which is an increase of 2,181 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.

Total number of certificates issued by the JANET Certificate Service
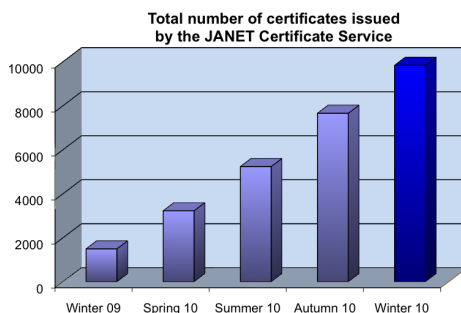
JANET Service Desk [more information]

JSD provides the primary point of contact for all enquiries concerning JANET services and requests for information. It can be contacted at service@ja.net.

During this reporting period the total number of enquiries received was 1,630. Most of these queries related to the Domain Name registration service, requests for JANET connections and applications or queries relating to other JANET services.

Number of enquiries to JANET Service Desk
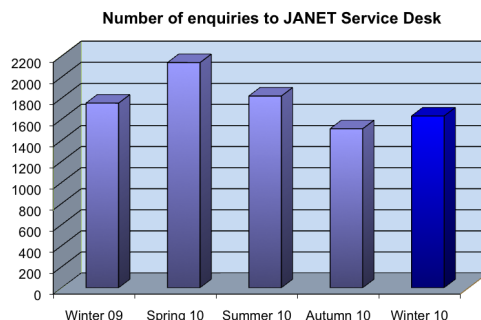
Technology Advisory Services [more information]

All JANET advisory services operate an enquiry answering facility, drawing on expert knowledge from the JANET community. The enquiry answering services are free of charge.

Video Technology Advisory Service (VTAS) [more information]

During the last quarter, a new evaluation report was published on the Polycom HDX 9000-720 CODEC, tested in November 2010.

Training [more information]

Eleven courses were delivered in this period. Feedback remains high, with 97.9% giving 'good to excellent' scores. Indicating the continued relevance of these topics to the JANET community, the most popular courses remain 'Implementing Shibboleth' and 'Videoconferencing'.

The training schedule for 2011 is now available on the JANET website at www.ja.net/services/training/schedule/by-date.html, and significant discounts are available for 5 or more course places using the Training Credits scheme.

We are currently planning a series of online briefings which will run for an hour over lunchtime and will be free to attend. Work is continuing on producing learning resources for EdLab including interactive learning objects covering IPv6 and access management, and additional video and audio material on a variety of networking topics. NetLab now has IPv6 implemented, allowing authentic IPv6 activities to be completed at training courses.

Two new courses, 'IPv6 Fundamentals' and 'Hands on Digital Forensics', will be run prior to the Networkshop conference in the University of Hertfordshire on 11 April. A further 5 courses are still in development including 'Multicast', 'eduroam Implementation' and 'Digital Forensics'.

We are pleased to announce that Networkshop Online has been launched, containing additional information and tools to help you make the most of your attendance at this year's conference. This facility is only available to registered delegates and is hosted on JANET Training's online collaboration and learning site EdLab. To register and get access to Networkshop Online, please go to www.ja.net/training/edlab. Once registered, follow the link on the homepage to request access.

Course overviews, full training course schedule and access to EdLab are available on the JANET website at www.ja.net/training.

4. SECURITY & REGULATION

CSIRT [more information]

The CSIRT team this quarter has increased its amount of activity and engagement with the UK law enforcement agencies: in particular, the CSIRT team was approached by CEOP, the Child Exploitation and Online Protection Centre, for assistance.

Although the number of incidents this quarter has seen the usual seasonal low, as students go home for their Christmas break, the levels of scanning, phishing and reporting of potential copyright infringements remain at a higher level than preferred. The number of Conficker incidents remains high and members of CSIRT are required to give a disproportionate amount of time on progressing incident resolution. Other forms of malware infections continue to be reported in significant numbers as routine from JANET connected organisations.

Security, Regulation and Policy [more information]

Following our responses to earlier consultations, the UK Government has sought JANET(UK) input on three areas of legal developments. On copyright enforcement, the Department for Business Innovation and Skills requested evidence for its growth review of the digital and creative industries; we also submitted evidence to the Culture, Media and Sport Select Committee's review of the Digital Economy Act. We have provided further information to the Ministry of Justice on the revision of the European Data Protection Directive, and to the House of Lords European Affairs Select Committee on European plans for improving cybersecurity. Finally the Home Office held a short consultation on amendments to the Regulation of Investigatory Powers Act to cover unintentional interception, where we pointed out the need for very careful definitions to avoid capturing entirely legitimate and everyday actions on wired and wireless networks.

Our course on Information Security Policies has been presented in Belfast and Manchester, and the course on Computers, Privacy and the Law in Belfast. Presentations on the Digital Economy Act were given at regional events in Aberdeen and Stirling, and a discussion on how traditional approaches to security may be challenged by mobile devices, networks and services held in London.

A new factsheet on the issues of providing alumni with e-mail addresses has been developed and published jointly with the JISC Legal Information Service.

> Information about all these activities can be found on the Legal and Regulatory Blog.

5. DEVELOPMENT

Project Moonshot [more information]

Work continues on Project Moonshot, aiming to extend the scope of federated identity management to applications beyond the web such as e-mail, instant messaging, file sharing, or access to remote computing resources and cloud-based services.

The IETF's ABFAB (Application Bridging, Federated Authentication Beyond) working group began work at IETF 79 in Beijing using the project's specifications as the starting point. These specifications are currently authored by individuals from JANET(UK), Cardiff University, Cisco and Nokia Seimens Networks with contributions and reviews from many other companies and organisations. The specifications are currently being updated and will be submitted for discussion at IETF 80 in Prague in March.

Some of these specifications are already being implemented in software that includes the Apache web-server and the Firefox browser, funded by the GEANT project. The majority of the remaining planned development work is expected to be complete by July 2011.

Network Access [more information]

Mobile Broadband

The procurement of a JANET 3G mobile broadband service is in its final stages with a view to launch (if a successful tender is received) at Networkshop. The proposed service will be specifically for use within the education and research sector and will be procured to meet the sector's particular requirements.

Southampton Group Design Project

The project to develop a Network Profiler has now successfully completed, and the proof-of-concept code is about to be handed over to JANET(UK) for further internal testing with a view to possible deployment as a service to eduroam users.

Network Access Control

Successful IF-MAP trialling with Loughborough is nearing completion and the placement post at Lumen House is generating a range of technical and briefing documentation for the community. More details about the IF-MAP technology will be presented at Networkshop.

Network Engineering [more information]

See Services: Training for news of the "IPv6 Fundamentals" and "Multicast" training courses.

Automated Provisioning

JANET(UK) is continuing to investigate solutions for enabling automated provisioning of network capacity in response to requests from the JANET community. The previous quarter saw further progress in the first phase of testing Autobahn and DCN software suites. Also, the project's name was changed from 'Dynamic' Provisioning to 'Automated' Provisioning.

Measurement & Monitoring [more information]

Flow Monitoring

JANET is able to provide flow data sets to network researchers (see 'Measurement Data For Research' below) more easily as a result of new packet replicating hardware being successfully installed in our Manchester Telecity PoP. This gives more capacity for flow monitoring and hence allows us to export flow data sets to more collectors without adversely affecting the exporting routers.

Support for Research [more information]

Measurement Data For Research [more information]

JANET(UK) has been working hard to put in place a framework that allows network researchers to obtain data on traffic flows traversing the JANET infrastructure. For interested researchers, an updated contract template for obtaining JANET traffic data for research purposes is available at www.ja.net/development/legal-and-regulatory/regulated-activities/traffic-data.html.

Optical Networks [more information]

Carrier Ethernet

Stage 2 investigation into the different advanced features for Carrier Ethernet connections has been completed. The final phase of the project is to compile the results and observations into a report which will be published during Q1 2011.

Roaming & Mobility [more information]

802.1X Supplicant [more information]

JANET(UK) has renewed its membership at board level of the OpenSEA Alliance, monitoring the ongoing delivery of a free cross-platform supplicant to support our activities around 802.1X. We have secured agreement for the development roadmap to include features supporting the technologies developed under Project Moonshot.

DOT1X Special Interest Group

This group of community experts has provided valuable input to JANET(UK)'s strategic planning around eduroam, resulting in a programme of improvements that are currently being realised as policy and best practice changes recently announced or due in the near future. The group has an ongoing role looking at applications of this family of technologies, and has also now switched from its a regular London venue to being hosted by members, spreading the travel load.

Video [more information]

Ultra High Definition [more information]

JANET(UK) is continuing its work with the BBC and NHK in Japan to test Super High Vision across JANET and other international networks.

The Ultra High Definition Special Interest Group continues to work together on a programme of activities. The Ultra High Definition Showcase project group is working on showcasing this technology over JANET.

6. COMMUNITY UPDATE

Documentation [more information]

Documents published between November 2010-January 2011	
Newsletters	JANET News 14
Books	JANET: The First 25 Years
Factsheets	Email Addresses for Alumni

As well as being there to support UK education and research, the very existence of JANET itself has spurred research in computer networking with effects felt around the world. To mark over a quarter of a century's operation, JANET(UK) this quarter published the first official history of the network. Meticulously researched by Professor Christopher S. Cooper, *JANET: The First 25 Years* covers the period from the Flowers Report of 1965 that led to the setting up of the Computer Board; through the technological and political challenges that followed the recommendations of the two Wells Reports that there should be a national education and research network; to the creation of JANET in 1984, the launch of the SuperJANET project in 1990 and the unveiling of the SuperJANET5 backbone in 2006 that finally realised the SuperJANET goals.

The table of contents can be read at www.ja.net/services/publications/history. The book is available as a print on demand publication (ISBN 978-0-9549207-2-2) for a nominal price of £22 that covers JANET(UK)'s printing costs. It is also available to download for free in a variety of electronic formats and is available electronically from the Apple iBookstore.

East of England

The Customer Engagement Manager attended a number of meetings with organisations including the EMMAN Technical Group, JISC RSC East Midlands FE IT managers group, the Learning and Skills Improvement Service and Excellence Gateway. Discussion at all of these included subjects such as access to JANET services and how JANET can meet the needs of the areas represented, and these have been fed back into JANET(UK).

A successful joint event with the JISC Regional Support Centres in London, Eastern and South East was held in London for the FE sector, providing an update on JANET for participants and helping gather JANET Six requirements.

Visits have also been made this quarter to Bishop Grosseteste University College, Colchester Institute, Hertfordshire Regional College, Lincoln College, Lincoln University, Loughborough College, Lowestoft College, Luton Sixth Form College, Northamptonshire County Council, St Albans District Council, Stamford College, UEA, University College of the Arts and Workers Education Association.

Scotland

Staff of Scottish JANET-connected organisations were offered a chance to hear about new legal and technological developments within IT, and to network informally, at the first JANET Aberdeen Technical Briefing, held in the Doubletrees Hilton in Aberdeen on 20 January 2011. The event built on the firm foundations laid by AbMAN and delegates were treated to presentations from Andrew Cormack (JANET(UK)) on the Digital Economy Act; Mark O'Leary (JANET(UK)) on Mobile Technology; Alistair Matthews (University of Aberdeen) on the Implementation of IPv6;

Stuart Campbell (LTScotland) on Glow; and John Coulter (Robert Gordon University) on data centres and shared services. The event was fairly well-attended but we look forward to increasing the number of delegates at next year's event.

The event also saw the launch of the new JANET Scotland website. At the moment this predominantly concerns JANET Aberdeen, but over time and with further migration of Scottish networks it will become a site concerning the whole of the JANET community in Scotland. The site is at: www.ja.net/scotland and contains information about Communications, Operational and Contractual matters, Business and Community Engagement, Services, and Events.

South East

Guy Sudron has taken the role of Customer Engagement Manager for the south-east of England, starting with JANET(UK) in early January. Previous to JANET(UK), Guy worked for LeNSE, the JANET(UK) regional network partner in the region. Contact details for Guy can be found on the JANET(UK) South East micro-site at www.ja.net/south-east.

NHS/HE Connectivity Project [more information]

The NHS-HE Forum has sent a response to the Department of Health consultation "Liberating the NHS: An Information Revolution".
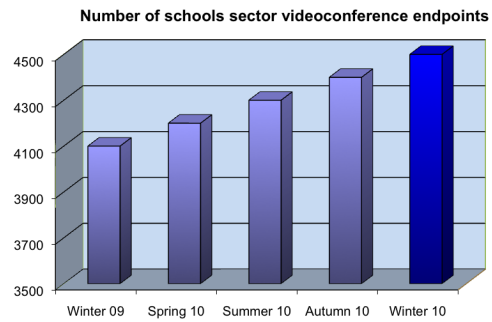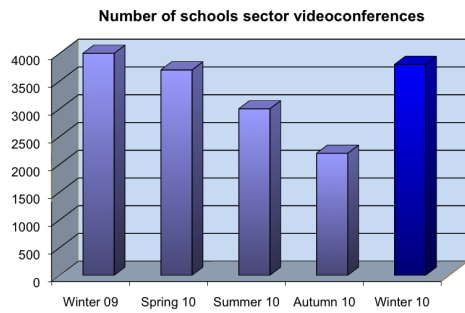
This action was decided on at the latest NHS-HE Forum meeting, which took place on 24 November 2010 in Manchester. At the same meeting it was decided to set up a Working Group to identify and publish local NHS-HE connectivity best practice. Mark Blakeman, Director of Informatics at University Hospital of South Manchester NHS Foundation Trust, has agreed to chair the group and there are a number of volunteers from both the NHS and universities. The first meeting is on 10 February.

Schools

Videoconferencing [more information]

Schools continue to take up videoconferencing, taking the best advantage of the high quality content provided through JANET(UK)'s close work with the NEN (National Education Network) Providers in England, LTS (Learning and Teaching Scotland), C2K (Classroom 2000) in Northern Ireland, and the local authorities, NGfL Cymru and DCELLS (Department for Children, Education, Lifelong Learning & Skills) in Wales. Over 3800 videoconferences were undertaken this quarter, picking up from the usual start-of-year slump (that quarter includes the last month of the summer holidays), approximately half with national content providers. Of the conferences, 75% continue to be for teaching, tutorials and related educational activities; other purposes include administrative meetings, system testing and quality assurance.

By the end of January 2011 JANET Videoconferencing had managed over 50,000 school videoconferences and the total number of schools sector endpoints registered was almost 4500 (as compared with just over 4100 at the end of January 2010).

Number of schools sector videoconferences

4000	
3500	
3000	
2500	
2000	
1500	
1000	
500	
0	

Winter 09   Spring 10   Summer 10   Autumn 10   Winter 10

Number of schools sector videoconference endpoints

4500	
4300	
4100	
3900	
3700	
3500	

Winter 09   Spring 10   Summer 10   Autumn 10   Winter 10

Content Providers [more information]

JANET(UK) has been working with the Natural History Museum to assist and document the museum's recent series of multipoint videoconferences to schools.

The Schools Videoconferencing User Group event at the Royal Society on 22 November attracted approximately 90 education representatives. The event featured numerous (local and remote) presentations in support of the use of videoconferencing in the classroom.

All the UK National Parks have now completed registration with JANET Videoconferencing and a briefing event was delivered by JANET(UK) at a conference in the New Forest.

7. EUROPEAN ACTIVITIES

GÉANT3 Activity

JANET is one of the networks from 33 European countries that together form the GÉANT Service Area, a 'network of networks' within Europe that creates the most advanced international research network in the world. JANET staff are contributing to various key projects of G3, the third generation of GÉANT.

eduroam

The eduroam service operated without issue, with all 33 GN3 NRENs are now participating in the service, following the recent addition of Montenegro.

eduGAIN

The eduGAIN service has begun pre-pilot operations. Ten federations (of the eighteen in Europe) are currently participating within the pilot, and initial results are promising. A draft service policy has been circulated to the NREN community for comment. The eduGAIN service pilot is expected to begin on 1 October 2010.

eduConf

A new task was established in April 2010 to determine the feasibility of a Pan-European Videoconferencing service. This task will report at the end of this year. A workshop is planned in Lisbon in October.

GÉANT 3 - JRA1 Task 1 "Carrier Class Transport Network Technologies"

Approval was given at the GN3 Symposium (Vienna, 24-26 November 2010) for JRA1 Task 1 to test a number of potential transport technologies including PBB-TE, EoMPLS, MPLS-TP, OTN, and GMPLS. The tests will commence in February 2011 with an aim to complete by end 2011. Different approaches will be undertaken to carry out the tests: some of tests will be conducted within NREN testbeds, others will be extended into a multi-NREN environment, and if any of the NREN participants do not have the relevant equipment then these tests will be carried out within vendor labs.

FURTHER INFORMATION

JANET(UK) 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(UK)'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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