

CONTENTS

1. Core Network	2	5. Development	14
2. IP Services	5	6. Community Update	17
3. Services	10	7. European Activities	21
4. Security & Regulation	13	8. Further Information	23

Key News in this Report

- Savings of £4.6m are made available to the JANET community through further measures taken by JANET(UK) to reduce the false positives of legitimate email being caught in spam filters and to speed up the filtering process generally. *See page 5*
- A very high level of overall satisfaction from UK federation members is shown in a survey commissioned by JANET(UK) to ensure that the federation continues to meet customer requirements. *See page 8*
- This quarter has seen the start of the refocusing of the Customer Engagement team into regions, and the team has started to pilot a CRM system to help with the processes and data capture of building relationships with JANET community. *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

IP Service

This reporting period has seen a total of 47 new or enhanced customer connections completed and brought into use:

Further Education

New

- Bedford Borough Council, Personal & Community Development
- Cambridge Regional College
- City College Norwich
- Colchester Institute
- East Norfolk Sixth Form College
- East Surrey College
- Harlow College
- London Borough of Waltham Forest
- Long Road Sixth Form College
- Lowestoft College
- Milton Keynes College, Bletchley Park Campus
- Milton Keynes Council, Personal & Community Development
- North Hertfordshire College
- Peterborough Regional College
- South East Essex Sixth Form College
- Suffolk New College
- Warwickshire College, Rugby Campus

Modified

- Askham Bryan College
- Coulsdon College
- Ealing, Hammersmith and West London College, Hammersmith Campus
- Franklin Sixth Form College
- John Ruskin College
- Prior Pursglove College

Higher Education

New

- Norwich University College of the Arts
- Oxford Brookes University
- The Open University
- University of East Anglia, Norwich Campus
- Workers' Educational Association South Wales, Swansea
- Writtle Agricultural College Higher Education Corporation

Modified

- Leeds Trinity University College
- Oxford Brookes University
- St George's University of London

JISC

New

- Natural Environment Research Council (British Antarctic Survey)

Modified

- Science and Technology Facilities Council (Rutherford Appleton Laboratory x 2)

Self-funded

New

- Cambridgeshire County Council
- Darwen Academy Trust
- Kirklees Metropolitan Council
- Luton Borough Council
- Milton Keynes Council

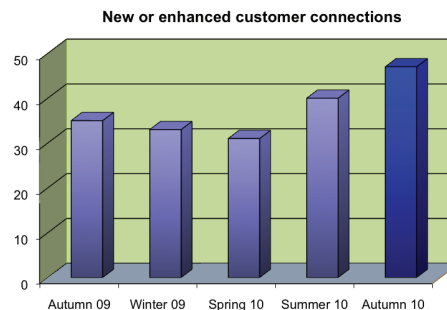
A list of all primary sites connected to JANET may be found at: <http://www.ja.net/janet-sites/>. For information regarding current upgrades or connections, please contact JANET Service Desk at: connect@ja.net or service@ja.net.

- North West Learning Grid: Halton Borough Council, Municipal Building
- North West Learning Grid: Halton Borough Council, Runcorn Town Hall
- North West Learning Grid: Halton Borough Council, Rutland House
- Oxfordshire County Council

- Peterborough City Council
- Proquest Information and Learning Limited

Modified

- Buckinghamshire County Council



FE

Following procurement of the EastERN regional network in the East of England (see [JANET News 11](#)), 31 FE college connections are migrating to the new network infrastructure. At the end of the reporting period 28 migrations were complete.

Core Network

The core network ran without service interruption during the reporting period. A number of fibre breaks occurred affecting resilient paths to a number of Regional Networks but these did not disrupt the service.

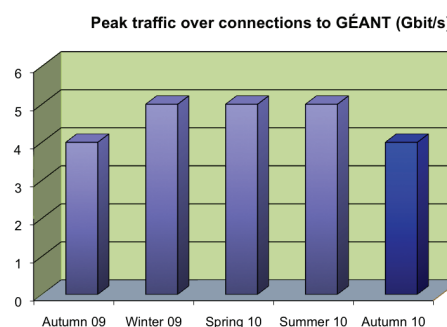
A considerable amount of maintenance work took place on the core network after the university clearing period: some to introduce a new external gateway node in Manchester Telecity and some to increase core capacity to meet regional demand over the next few years.

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.

(i) Access to the European Research Network

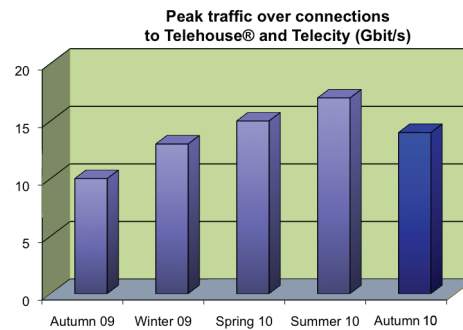
Traffic normally peaked at around 4Gbit/s this quarter, a consistent figure for the start of an academic year, with a couple of sparks at 8Gbit/s.



(ii) Access to the Global Internet

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 Teleticity in London.

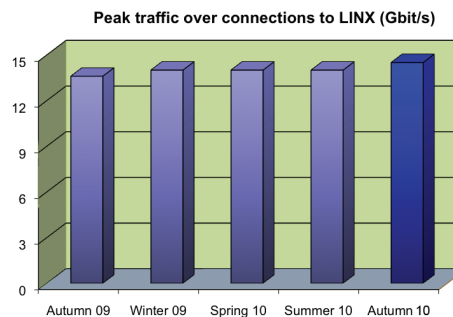
After the usual traffic drop during the student vacation, the load on those global transit links steadily increases when the new academic year starts. Aggregated peak traffic reached 14Gbit/s in late October.



(iii) Access to the UK's Internet Exchanges

JANET access to the LINX (London Internet Exchange) is via four 10Gbit/s connections from the Telehouse® and Teleticity PoP locations.

Aggregated public peering traffic was around 14.5Gbit/s at the end of the reporting period.



Management of Maintenance Activities

During the reporting period there were a total of 13 planned maintenance sessions. To ensure Clearing could be supported without interruption, there was a moratorium on any major work taking place during sessions between 24 August and 14 September.

Major activities that took place included:

- new routers deployed at various locations
- new line cards installed at various locations to support new connections
- migration of a number of connections from EastNET to the new EastERN infrastructure
- further circuit upgrades within TVN
- a number of connections moved to new interfaces
- a number of routers and switches decommissioned
- IOS and JUNOS upgrades to a number of routers.

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.

E-mail Advice and Testing Service [\[more information\]](#)

The E-mail Advice and Testing Service attempts to connect to and probe an organisation's mailer to simulate the activities of a bulk mailer in preparation for a spam run. It then reports on any vulnerabilities it finds.

E-mail Abuse Protection Service [\[more information\]](#)

DNS Block Lists are a well-established technique for preventing unwanted e-mail, identifying sources of e-mail abuse as lists of IP address blocks which let users reject a high proportion of unwanted e-mail quickly and easily. Whitelists are the opposite: mail from a whitelisted email address, domain or IP address will always be allowed.

In response to the requirements of JANET customers, JANET(UK) has taken further measures to reduce the false positives of legitimate email being caught in spam filters, and to speed up the filtering process generally, by subscribing to a DNS whitelist from dnswl.org on behalf of the JANET community. Because this single subscription can serve the entire JANET community, rather than individual organisations each having to subscribe themselves, the community makes a saving of £4.6m. JANET has also included whitelists from Spamhaus in its data feed service.

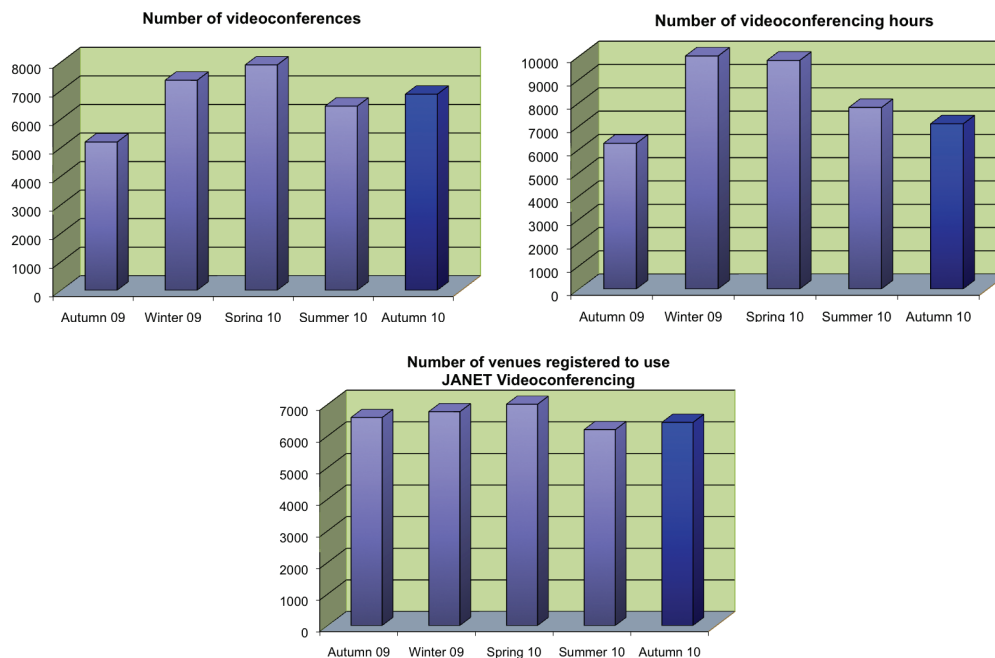
Web Mail Service [\[more information\]](#)

The JANET Web Mail Service is an e-mail service provided to JANET organisations, using a standard web browser for administration and sending and receiving e-mail from any computer with Internet access.

To make sure that resources are concentrated fairly on those sites that regularly use the service, JANET(UK) keeps track of usage by organisations and those which have not used the service for six months or more are invited to leave. At the end of the reporting period no more sites had joined the service and seven had elected to leave, making a total of 26 sites now using the service.

JANET Videoconferencing Service [\[more information\]](#)

To date there are 6,868 users and 6,426 venues currently registered to use JANET Videoconferencing. During the last quarter this service was used for 6,284 videoconferences which took place over 7,087 hours between 1 August and 31 October.



The [Desktop Check \(Beta\)](#) is now being widely used to help participants joining a videoconference via the [Desktop](#) feature to check their audio and video before a session, without having to register or log into the Booking Service.

New Cisco Tandberg equipment has been purchased and installed to replace the existing gatekeeper infrastructure. The new equipment is already in service; however new features offered by this system are being tested with a view to offering JANET users more facilities and greater flexibility.

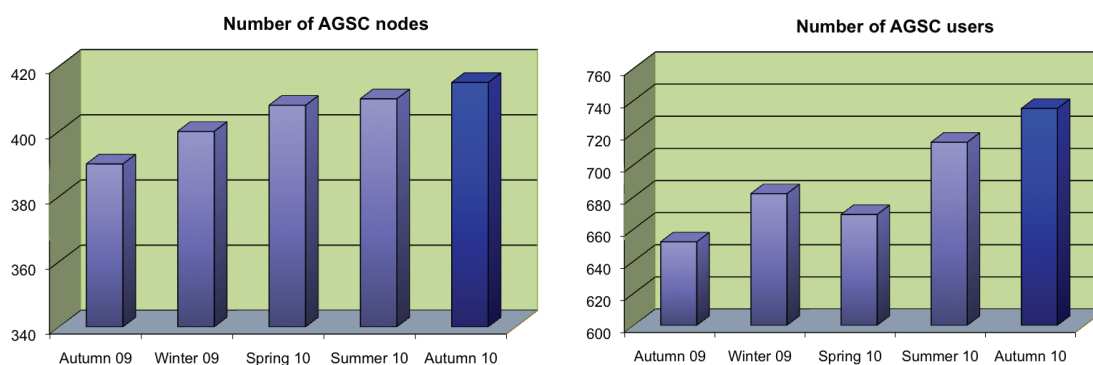
As a result of the survey undertaken last year, it was established that there was demand for a set of [collaborative tools](#) to enhance the videoconference provision. The initial offering is a simple collection of collaborative tools using Tandberg's See and Share. This collaborative software is simple to use and offers desktop sharing and instant messaging features. The aim is for this software to be used alongside JANET Videoconferencing to enable greater interactivity during sessions. From this trial, it is hoped to measure the effectiveness of these tools and identify any additional requirements.

A SIP (Session Initiation Protocol) project is near completion and a SIP pilot should be under way before the end of the year. This will allow users to register and use SIP endpoints when launching or booking videoconferences. Further information regarding the pilot and how to be a participant will be published on the JANET Videoconferencing website when it is available.

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.

The number of registered UK Access Grid® (AG) nodes currently stands at 415 and the number of registered users stands at 734.



Testing has commenced for using AGSC with the NHS and an upgraded Access Grid Toolkit 3.2 has been released. Connection to the EVO (Enabling Virtual Organizations) servers is now IPv6 enabled and an updated beta version of EVO has been launched for testing. The AGSC is currently testing this in preparation for its anticipated launch.

Nameserver Services

JANET(UK) 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.

Second Level Domain Service

DNS (delegation)

The JANET DNS Service encountered no problems and continued to run reliably throughout this quarter.

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.

Three more organisations registered during the reporting period to use the JANET Primary Nameserver service, making a total of 122 users.

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 530.

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

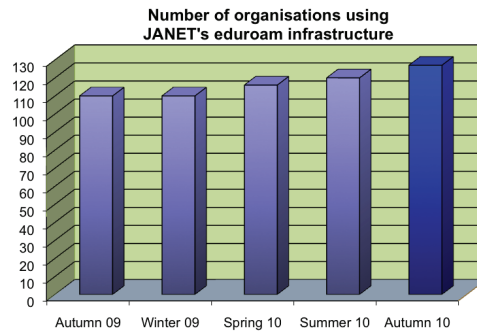
Resolvers are part of the DNS functions that query nameservers for IP addresses. JANET organisations with very small networks will find it useful to use the off-site resolver set up for their benefit by JANET(UK). The service continues to run reliably and effectively.

Two sites joined during the reporting period taking the total number of users up to 116.

Roaming Service [\[more information\]](#)

JANET's eduroam infrastructure 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.

The number of participating organisations now stands at 127. During October a new peak of nearly 40,000 unique devices using the service were counted, reflecting the return to study of the student population and the increasing extent of deployment at participating institutions.



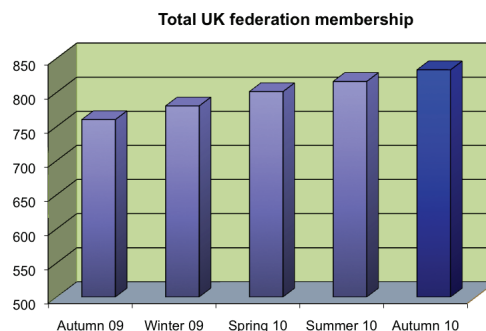
Minor changes to the technical specification of eduroam as operated in the UK have been announced in the last quarter. More significant behind-the-scenes changes that will make the eduroam experience more consistent to users wherever they might be visiting are undergoing final review prior to notification to the community. Sufficient lead time will be allowed for unhurried discussion, planning and implementation.

Other development projects to address eduroam usability launched in the last quarter include a connection evaluation service to allow users to determine and report how their eduroam connection is configured and performing; the development of a hardware monitoring solution adapted to duplicate the user experience rather than pursue more conventional monitoring modes; experimental work with antennae arrays with a view to extending external coverage of an eduroam instance; and an iPhone application aimed at locating and evaluating eduroam services.

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.

At the end of October there were 833 members in the UK federation, made up of organisations from UK education sectors and of commercial organisations providing online services to these sectors. A list of services available through the federation can be found at www.ukfederation.org.uk/content/Documents/AvailableServices.



This quarter, JANET(UK) commissioned a survey of UK federation members to ensure that it continues to meet customer requirements and to help focus service enhancements. The

independent survey shows a very high level of overall satisfaction from members, with levels above average for the telecommunications industry. At the same time JANET(UK) recognises that it must continue to improve to meet the expectations of its members.

A summary of the results is available at www.ukfederation.org.uk/library/uploads/Documents/ExecSummSurv.pdf.

Service Enhancement

A new user interface for the UK federation's central discovery service (also known as the WAYF), to be implemented on 1 December, can be previewed at: <https://sh2testsp1.iay.org.uk/>.

The interface is based on the results of the JISC Service Provider Interface Study and other user experience testing, and features a simpler overall experience, an incremental search mode and the ability to access all identity providers (even those normally "hidden", i.e. currently in testing and only being used by system developers) from the main interface.

The incremental search facility allows most users to 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 change is expected to deliver a significant benefit to first-time 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.

One more site joined the service during the reporting period, bringing the total number of sites using the service to 78.

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 2 organisations joined the service and several organisations that were not actively using it were removed. There are currently 74 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.

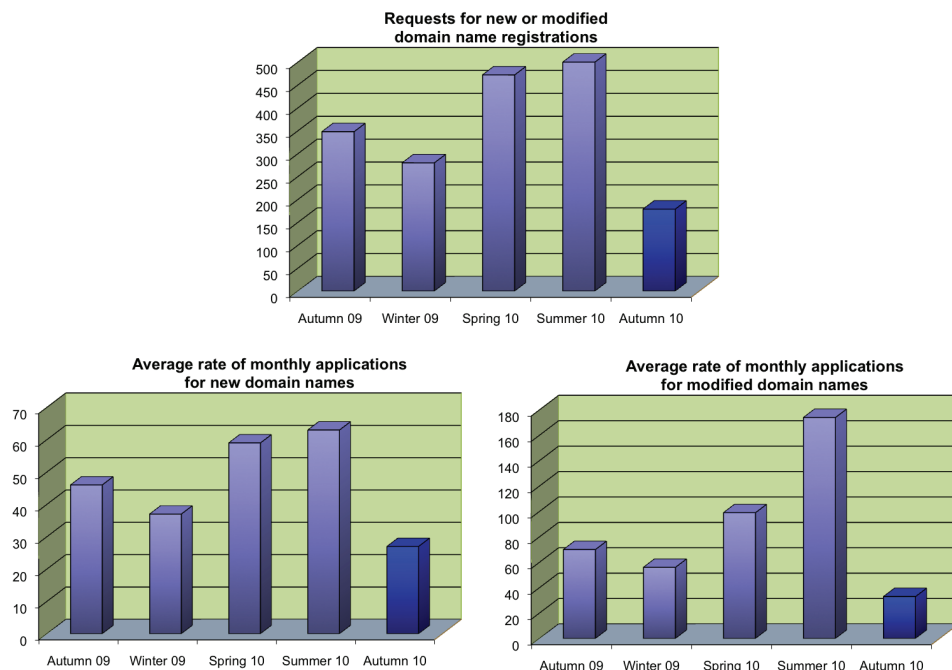
Domain Name Service Administration

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 179 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 33 modifications for each month.

Following an unusually high level of new name registrations and modifications over the summer period, as noted in the previous report, the figures for autumn are atypically low, indicating the successful completion of the summer's work.



IP Address Assignment

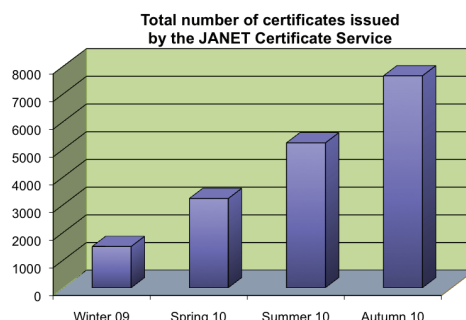
Every organisation that wishes to send and receive e-mail, or gain access to the Internet, needs a globally unique address, known as an IP address. JANET provides IP addresses for use with a Primary or Sponsored connection.

During the reporting period 11 applications were received and completed, including 2 applications for IPv6.

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 new JANET Certificate Service was launched on 18 November 2009. By the end of this reporting period a total of 7,655 certificates had been issued under the new automated system, which is an increase of 2,423 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.

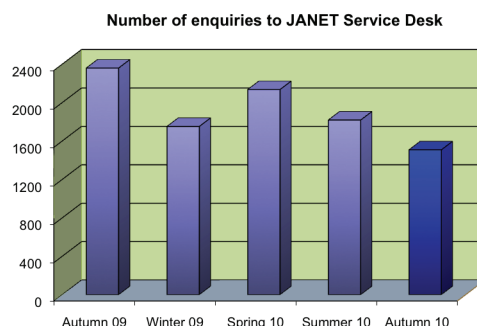


JANET Service Desk [\[more information\]](#)

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 1,509. Most of these queries related to the Domain Name registration service, requests for JANET connections, and applications or queries relating to other JANET services.

One complaint was received. A dialogue has remained open during this reporting period.



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 LifeSize Passport Codec. The VCON desktop videoconferencing software evaluation report is being prepared for publication and should be available in the next few weeks.

The following desktop videoconferencing hardware products are currently being tested.

- Yamaha PJP-10UR
- Spread USB conference speaker microphone
- US Robotics USB Internet speakerphone.

Training [[more information](#)]

Thirteen courses were delivered in this period, including some that were commissioned (i.e. a course run for an organisation, usually with internal candidates only and sometimes tailored to their specific needs). Feedback remains high, with 97.9% good to excellent scores. The most popular courses remain courses on “Implementing Shibboleth” and on “Videoconferencing”.

August saw the successful pilot of the new “IPv6 Fundamentals” course. This was well received and will run with some minor amendments in Q4 2010, and prior to Networkshop in April 2011.

The training schedule for the remainder of 2010 and for 2011 is now available on the JANET website, and significant discounts are available for 5 or more course places using the Training Credits scheme.

We are currently commencing work on gaining formal accreditation for JANET Training courses. A further 5 courses are still in development including Multicast, Eduroam Implementation, and Digital Forensics.

During this period JANET Training successfully ran another online briefing for ‘Upgrading Shibboleth 1.3 to 2.x’. 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.

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](#)]

Although CSIRT has dealt with the usual rates of scanning for vulnerabilities and phishing attempts across JANET in this period, and malware infections remain at a high level across the community, the team's efforts have seen a drop in the number of known open DNS resolvers, i.e. resolvers that are open to clients outside their administrative domain and therefore open to abuse by outsiders, on JANET by approximately 35%. A small number of these are proving difficult to secure due to organisational history.

Conficker activity remains steady, although it is taking up less of the team's time now that most organisations are well prepared to deal with infections. There has also been a significant increase in the numbers of reported denial of service activity on the network.

There has been a large increase in copyright infringement reports sent to CSIRT this quarter, probably due to a lack of awareness of AUPs in new students and increased monitoring by rights holders at this time. To ease reporting of copyright notices, CSIRT is investigating methods to handle reports sent in ACNS format efficiently. This is the Automated Copyright Notice System, an open source, royalty-free system that can be implemented on the network of any organisation such as a university that handles large volumes of copyright notices, to increase the efficiency and reduce the costs of responding to the notices.

"Google Safe Browsing Alerts for Network Administrators", which CSIRT has been helping Google trial for a few months, has been launched as an experimental service open to autonomous system owners.

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

JANET(UK) has made responses to four national and European consultations with input informed by discussions at LINX, TERENA and BCS meetings. A Ministry of Justice consultation to inform the UK's position on the EC revision of the Data Protection Directive provided a further opportunity to discuss the increasing problems in applying current law (15 years old) to Internet services. Encouragingly, the UK Information Commissioner's submission to the same consultation confirms both our analysis of the problem and our proposal that a risk-based approach will be essential in future. A Department for Business consultation on implementing new EC telecommunications law also covers privacy issues: data breach notification, cookies and anti-spam law. A European consultation on the Electronic Commerce Directive included questions on the liability of networks and web hosts: we pointed out the anomaly that current law can actually discourage such organisations from actively searching for inappropriate content rather than waiting for it to be found and reported by someone else. Clarification and possibly strengthening of protection from liability is needed. Finally, both UK and EC regulators have been discussing what, if any, steps need to be taken to preserve the benefits of an open Internet.

Presentations on the possible implications of these and other developments for JANET and its connected organisations were made to the JANET CSIRT conference and 802.1X Special Interest Group.

New factsheets on 'Cloud Computing' and 'Managing Safety for Children and Other Vulnerable Guests in HE' have been published and are available for download from www.ja.net/services/publications/factsheets.html. A new version of the Technical Guide on Logfiles has also been published that reflects changes in the law and operational practice, available for download from www.ja.net/services/publications/technical-guides.html.

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

5. DEVELOPMENT

Network Access [[more information](#)]

Portable WLAN

The final portable WLAN project reports are being compiled following the summer fieldwork season. The deliverables of this project are expected to be published before year end.

Mobile Broadband

JANET(UK) is currently engaged in a procurement process with a view to obtaining a framework for the delivery of a data SIM service adapted to the needs of UK education. Some features may include the ability for organisations to assign their own IP addresses to SIM accounts, thus simplifying their roaming security model, and a cost effective 'low usage' charging band for infrequent use and mobile-to-mobile applications.

Southampton Group Design Project

This year's Southampton MSc group design project students have made a strong start with developing the connection evaluation web service proof of concept for JANET(UK) (see 'eduroam Development' below). Core functionality and interface design have been signed off, and the group have successfully presented their ideas to their peers.

Network Access Control

JANET(UK) is pleased to welcome Adam Bishop on a 12 month technical project support placement from the University of Southampton. He will be leading our efforts in developing a documentation and software package aimed at lowering the barriers to the adoption of [IF-MAP](#) among the JANET community.

IF-MAP is already playing a role in recently-launched projects, addressing data transport in the context of RADSEC and Shibboleth.

Network Engineering [[more information](#)]

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

Dynamic Provisioning

After reviewing several candidates, it was decided that plans to trial two separate software systems for the Dynamic Provisioning project would be developed. The Autobahn system from GEANT2 and the DCN (Dynamic Circuit Network) software suite from Internet2 were chosen to be trialled on JANET's recently installed [Dynamic Provisioning](#) testbed.

A test plan was written which divides the tests into two phases. The first phase is now active and the second phase, mainly comprising of interoperability tests, is scheduled for the first quarter of 2011.

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

Flow Monitoring

JANET(UK) is revisiting the design of its flow monitoring architecture. New hardware is being installed in the Manchester Telecity PoP to give more capacity for flow monitoring which should also allow us to provide richer data sets to network researchers (see 'Measurement Data For Research' below).

In addition, a number of software solutions have been chosen that will be evaluated against the set of requirements that have been established.

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

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

An Aurora meeting was held at the University of Cambridge on 12 October 2010, to discuss the various trial activities that were being conducted over the dark fibre infrastructure and future requirements for this facility.

Measurement Data For Research [\[more information\]](#)

JANET(UK) is supporting networking research by providing information on traffic flows within the JANET network. October saw the completion of several months' worth of data gathering which was provided to researchers at the University of Glasgow. Discussions concerning the project identified some minor changes that will be made to the standard contract agreement. Additional requests for data from other institutions are being negotiated.

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

Carrier Ethernet

Stage 2 tests for the Carrier Ethernet project are progressing according to plan and will be completed by the end of 2010. The tests consist of investigations into the different advanced features for Carrier Ethernet connections such as multi-domain and multi-technology connections, dynamic provisioning of connections, bandwidth guarantees and QoS, resilience, and multipoint-to-multipoint connectivity.

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

802.1X Supplicant [\[more information\]](#)

JANET(UK) continues to play an active role on the board of the OpenSEA Alliance, providing an education perspective to the development of a cross-platform open source supplicant. Recent discussions have focused on the development roadmap and the possibility of integrating support for JANET's Project Moonshot.

DOT1X Special Interest Group

The 802.1X SIG continues to provide technical and strategic input to JANET's Development programme, in particular on the ongoing technical and policy review of eduroam in the UK. We are particularly pleased to receive the support of a number of international contributors to the group. The last meeting achieved consensus on a number of changes to the eduroam technical specification soon to be announced.

Following an internal reorganisation within JANET(UK), Mark O'Leary will be taking over as chair from Henry Hughes.

eduroam development

See IP Services: Roaming.

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

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

Successful tests between the BBC and NHK in Japan were carried out using Super High Definition audio and video content over JANET. The test involved a live stream of The Charlatans and a Taekwondo demonstration.

Building on the success of these tests, JANET(UK) will continue to work with the BBC and NHK in further tests to prove this technology.

JANET(UK) and members of the Ultra High Definition Special Interest Group are working together on a programme of activities aimed at showcasing this technology over JANET.

Such activities will be used to explore the high capacity Lightpath infrastructure, and highlight the key drivers and applications for Ultra High Definition such as medical imaging, cultural exchanges and broadcast.

6. COMMUNITY UPDATE

Documentation [[more information](#)]

Documents published between August-October 2010

Newsletters	JANET News 13
Reports	The JANET Report 2009-2010
Network	Managing Safety for Children and Other Vulnerable Guests in HE
	Cloud Computing

East of England

This quarter has seen the start of the refocusing of the Customer Engagement team into regions, and the team has started to pilot a CRM system to help with the processes and data capture of building relationships with JANET community.

Enquiries continue to come from Local Authorities with requests both for upgrades to existing connections and for new connections. Doncaster Council, City of York, Buckinghamshire, Nottinghamshire, and Lincolnshire are in the process of receiving quotes.

Other activities have included involvement in the Excellence Gateway project for FE Colleges. This is a repository for content and staff development resources hosted and managed by LSIS. It has been decided to move the service in-house and to refresh the user interface to make it easier to seek appropriate resources.

Lincolnshire County Council has set up a Digital Gateway Project to progress the roll-out of rural broadband across the county. The county is relatively sparsely populated and BT's 21st Century Network projections for exchange upgrades will not meet expectations in the near term. The University of Lincoln is also engaged to help drive the change for economic development across the area.

The National Media Museum in Bradford – a part of the National Museum for Science and Industry – is developing an Internet Gallery and a JANET connection has now been delivered as part of that project.

An innovative approach led by Northamptonshire and Cambridgeshire County Council is looking to offer shared services across the authorities and to be involved in the possible development of a regional public sector network..

Scotland

Tim Marshall, CEO of JANET(UK), accompanied the Account Manager on a number of visits to Scottish HEIs as part of our Customer Engagement activities, which seek not just to promote JANET services but also to feed the needs of our customers back to JANET(UK).

The AbMAN transition to JANET(UK), undertaken at the request of the AbMAN board, was successfully completed. To plan future collaborative activities, an Aberdeen Area Technical Group was established and its first meeting was held in October.

As part of the [network planning process](#), staff from JANET(UK) were present at the HEIDS (Higher Education Information Directors Scotland) meeting to run a requirements gathering workshop. JANET(UK) also had a stand at the Scottish Learning Festival in the SECC, Glasgow in September – a very well attended event that gave us an opportunity to meet with customers from the local authorities, schools, and further education colleges. There was great interest in our videoconferencing services and in JANET txt.

Northern Ireland

JANET(UK) was represented at JISC's annual conference in Belfast in October, which focused on Business and Community Engagement, and innovation through ICT. All six of Northern Ireland's FE colleges were present together with colleagues from the rest of the UK.

South West & West Midlands

A number of Further Education colleges have shown interest in upgrading their JANET links to 1Gbit/s. The alternative to this is considering a second JANET link to a different site on the campus or a second campus linked internally to the main campus and using that as part of the Disaster Recovery plan.

Videoconferencing is coming up the agenda for FE and smaller HE institutions, with most colleges looking to save on travel budgets by conferencing across sites and also for keeping contact between lecturers and students on job placement.

Most providers are looking closely at off-site email and apps provision with Google or Live@Edu. Shared services are being discussed by some with backup, data storage, HR and student services being some of the areas being considered.

Network User Groups

JANET(UK) attended the SWERN User Group on 13 October 2010 and updated the meeting on the latest JANET service updates. JANET(UK) also attended the UCISA Network Group meeting on 29 September to discuss their requirements for the SIX project and to update the meeting on the latest changes to the JANET portfolio.

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

Following the implementation of the operational and resilient N3 JANET Gateway at the end of June 2010, the focus has switched to the potential extra benefits that the Gateway can deliver. Working closely with the Department of Health Informatics Directorate, a mandate document has been created which, if approved, will give the go-ahead for staff time to be allocated to create the business cases for six deliverables focused on service enhancements using the N3 JANET Gateway. These are:

- **Baseline (Deliverable) 1:** bi-directional service, to support inbound sessions initiated by users in JANET accessing services on N3
- **Deliverable 2:** sharing/ exchange of information between computers in NHS and academic networks initiated in either direction
- **Deliverable 3:** integrate the NHS (N3) and academic (JANET) video services (England)
- **Deliverable 4:** secure e-mail solution between the NHS and academic networks
- **Deliverable 5:** support for eduroam in NHS networks

- **Deliverable 6:** federated access to web-based resources in a pilot community.

In addition there are two further deliverables that aim to test strategic options moving towards the Public Sector Network model:

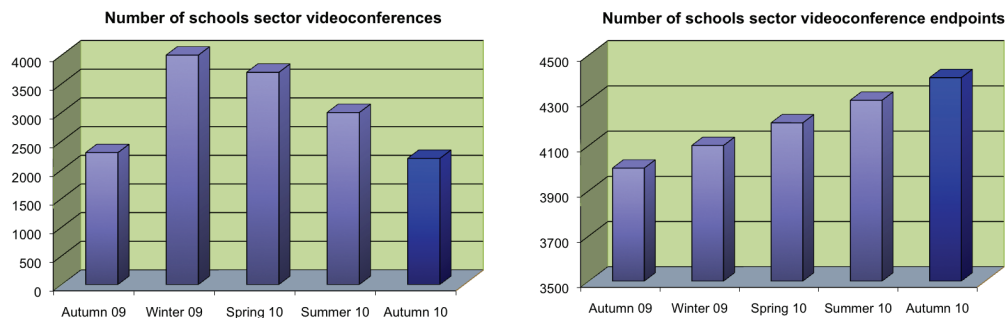
- **Deliverable 7:** connect one or more pilot local NHS communities to shared services such as Internet access on an open core network (JANET)
- **Deliverable 8:** create a shared local community comprising one or two local health, education and social care organisations.

Separate to this, testing across the N3 JANET Gateway is also taking place for NHS Scotland's videoconferencing master gatekeeper with JANET Videoconferencing, and for Access Grid users on JANET with IOCOM users in the NHS..

Schools

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

The take-up of videoconferencing by schools continues to grow. By the end of October 2010 the total number of schools sector endpoints registered with JANET(UK) was almost 4,400, as compared with just over 4,000 at the end of October 2009, and 2,200 videoconferences were undertaken this quarter (a dip reflecting the fact that this quarter includes the summer break). Approximately half of these were 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.



Workshops and Conferences [\[more information\]](#)

JANET took a stand at the annual SocITM conference to engage with the IT Directors of Local Authorities. The focus was on the need to develop sharing of services and obtain efficiencies from the use of IT, and citizens' use of online processing via the web.

JANET CSIRT Conference

The 2010 JANET CSIRT Conference was held at One Wimpole Street, London, the home of the Royal Society of Medicine, on 20 October. The conference saw many attendees not only from the JANET connected organisations but the wider NREN community.

This year six speakers talked on security issues that they felt were important to our community, ranging from the Digital Economy Act and password policies to open source VPN and intrusion detection systems. The presentations were aimed at both technical and managerial staff and the accessibility of the content was remarked upon.

A large amount of discussion took place not only during the sessions but also during the breaks, and we look forward to some of the collaboration and work that may result. [Presentations are available](#).

SIX: Network Managers Consultation

Fifty four delegates attended the Network Managers' Consultation, held in London on 21 October as part of the requirements gathering process for the next upgrade of the JANET backbone. Feedback from delegates was extremely positive. [Presentations are available](#).

Stakeholder Group [\[more information\]](#)

The stakeholder workshop held on 22 September in London focused on security issues: items that JANET customers consider to be major security threats, and the ways in which JANET(UK) can further assist the community in addressing these issues. [Minutes of the meeting are available](#).

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.

eduPKI

The enhanced version of TACAR software moved into production in July 2010. TACAR is the TERENA Academic Certification Authority Repository, a trusted repository operated by TERENA to safely store and securely distribute verified root Certification Authority certificates. This quarter the first eduPKI product, the eduroam Certification Trust Profile, was also completed, specifying a certificate profile for certificates used by RadSec endpoints within the eduroam service. Certificates corresponding to the profile have been issued for testing. This product will be made available to customers from the eduroam service from November 2010.

A new eduPKI website (www.edupki.org) was established in July 2010 to provide information about eduPKI during the service development phase. The intention is to migrate the content of this website to the GN3 project website in the near future.

The documentation for the eduPKI Policy Management Authority (PMA) was also published in July 2010. This opens the way for Certification Authorities operated by NRENs to seek accreditation to issue an eduPKI product to their own customers.

eduroam

All 33 GEANT NREN partners are now participating in the eduroam service.

Development of the eduroam service continues with effort focusing on three particular areas. In the eduroam monitoring service, testing has been implemented of the CUI scenario, which provides a pseudonym that identifies a user uniquely; initial preparation has begun for the implementation of a tool, F-Ticks, which will provide significantly more detailed roaming statistics than presently possible; and preparation continues for the deployment of the RadSec security protocol, which secures communication between the RADIUS and TCP peers.

Global interest in the eduroam service continues to gather momentum. Links have been established with new communities in Kenya, South Africa and the eastern periphery of Europe.

eduGAIN

Work has focused on the key activities necessary for the pilot service to commence in October 2010. A number of technical improvements to the MDS service – the Metadata Service, used to aggregate and publish SAML metadata – have been identified and deployed as a result of lessons learnt during the pre-pilot service, and a comprehensive draft of the eduGAIN policy was completed and published for public review.

eduConf

An eduConf survey to establish market demand for different types of videoconferencing services obtained 117 responses from 26 NRENs and preliminary data analysis is underway. A set of informal interviews was also conducted with Videoconference Managers from 26 NRENs.

Analysis of the data gathered is underway. Preparation continued for the eduConf workshop in Lisbon, due 18-19 October, which yielded registrations from most NRENs.

GÉANT 3 - JRA1 Task 1 “Carrier Class Transport Network Technologies”

The stage 2 activity which involves testing potential transport carrier class technologies commenced in August 2010. Specific test areas have been defined and JANET(UK) is leading three of these: PBB-TE, Ethernet OAM, and Layer 2 routing. JANET(UK) is also participating in the GMPLS and EoMPLS tests. Detailed test plans will be finalised during the GN3 Symposium (24-26 November 2010), with the testing to commence during 2011.

TERENA General Assembly

The TERENA General Assembly was held on 20-21 October 2010. There were presentations on the Cloud Service Offering to the Greek R&E Community, Commoditisation of Services in Spain, and Cloud Services in the Netherlands. Copies of the presentations [can be found on the TERENA website](#).

TERENA Networking Conference [[more information](#)]

The TERENA Networking Conference will be held in Prague, Czech Republic on 16-19 May 2011. The [Call for Papers](#) has just been announced.

TF-Mobility & Network Middleware (TF-MNM)

TF-MNM continues to guide developments on the European stage, particularly with respect to eduroam. The upcoming programme for the location awareness strand within this activity is being reviewed.

FURTHER INFORMATION

This document is copyright the JNT Association 2010.

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.

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

E-mail: service@ja.net

Telephone: 0300 300 2212

Fax: 0300 300 2213

Post: JANET Service Desk, Lumen House, Library Avenue, Harwell Science & Innovation Campus, Didcot, Oxon OX11 0SG

JANET® is a registered trademark of the Higher Education Funding Councils for England.