

JANET REPORT 2010

FOREWORD

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

A vibrant knowledge economy depends on excellence in research and education, to which JANET, together with its associated services continues to be a mission critical asset. It is essential that such an economy be underpinned with a powerful and transparent infrastructure which facilitates knowledge exchange in every area. While research and education remain at the heart of



JANET's mission, advances in technology together with the government's drive for shared services and efficient procurement mean that a common infrastructure can support multiple communities effectively. The East England Regional Network (page 17) is an excellent example of how we are able to identify synergies between different sectors and through joint procurements bring benefits to all stakeholders. The increasing trend towards public sector networks across the UK opens up a key strategic opportunity for JANET.

For the UK to remain competitive globally, an accessible, high-speed and resilient network is essential to enable both national and international collaboration. JANET once again stands out as a world leader as it moves to 100Gbit/s on the backbone, making it one of the world's fastest research and education networks. The continued restructuring of our regional network delivery is also proving beneficial from both an economic and operational point of view.

As the fall-out of the global financial crisis becomes clearer we are addressing the infrastructureand funding challenges facing our customers. The volume of traffic on JANET continues to grow year on year, and with the constant emergence of new technologies, the network is continually being updated to reduce the unit costs and meet the requirements of over 18 million users throughout the UK and across the world.

In such a changing environment it is essential that we meet our customers' needs in an appropriate and cost effective way. Customer engagement and service will be at the heart of our success and this will be a key aspect to our organisational and team development in the coming year.

This report records the activities of JANET(UK) during 2009-10 and we look forward to continuing to adhere to our core values of efficiency, operational excellence and environmental sustainability in response to the needs of all our stakeholders and customers.

Tim Marshall, Chief Executive Officer

A STEP AHEAD

HELP PLAN THE NETWORK

As the renewal of the current JANET backbone approaches, JANET(UK) has begun the process of planning for its future provision.

So that the planning process is informed and guided as closely as possible by the requirements of our users, a series of requirements-gathering workshops began in the summer and a brochure outlining the process has been sent to all JANET connected organisations. The brochure is also available for download at www.ja.net/documents/development/janet-six/janet-network-requirements.pdf.

The requirements gathered will be used to develop several strategies for: the future provision of JANET; the regional delivery infrastructure; and the work to ensure the international interests of JANET users are properly served by high quality network services. JANET(UK) aims to ensure that it continues to combine a network that meets user requirements with exceptional value to the sectors it serves.

We will be pleased to receive the views of anyone who would like to engage directly and these can be sent to Jeremy Sharp, Head of Strategic Technologies at JANET(UK): email jeremy.sharp@ja.net; tel. 01235 822200.

100Gbit/s

JANET has built on last year's success in which it became the first National Research and Education Network in the world to complete a **100Gbit/s network trial**. While that trial was conducted in isolation from operational network traffic, this year a second successful trial was completed over a live section of the JANET backbone by injecting a 100Gbit/s wavelength into the fibre as an additional 'alien' wavelength alongside wavelengths carrying operational traffic, which were unaffected. The trial was conducted in partnership with Verizon Business and Ciena using Ciena's first generation 100Gbit/s.optical transmission product.

Over the last five years the JANET backbone has seen an explosion in usage.

Peak traffic over JANET to:

Summer 2005

Europe 600Mbit/s Global Internet 3.35Gbit/s UK's Internet

_ .

Exchanges 2.25Gbit/s

Summer 2010

Europe 5Gbit/s Global Internet 17Gbit/s

UK's Internet

Exchanges 14Gbit/s



CORPORATE PLAN



At the end of 2009 JANET(UK) published a new Corporate Plan for the period 2010-2012. Since the last Corporate Plan was published, JANET has moved to 40Gbit/s; the Network Operations Centre has been integrated into the business in London; and new services have been established while existing services see a steady flow of enhancements.

The new Corporate Plan lays out the company's strategy for the next three years as the UK recovers from the economic downturn. It can be

www.ja.net/documents/ company/corporateplan-2010.pdf. As requirements for network capacity continue to grow, 100Gbit/s circuit technology will play an important role in underpinning the requirements of providing a scalable and reliable JANET network service. By conducting these types of trials over the network at this early stage, JANET will be positioned to address any future requirements whilst providing a robust, flexible and scalable network for our customers.

REGIONAL DELIVERY

Following a review this year of the regional delivery model of JANET services, JANET(UK) has begun a series of projects designed to implement a more directly managed model that will reduce costs and continue to serve the present and future requirements of our customers. The company already manages three regional networks directly: EastERN (the East of England Network), TVN (Thames Valley Network) and WMRN (West Midlands Regional Network).

The first regional network to come in-house was AbMAN – a move made at the AbMAN board's request in August 2009, prior to the review. JANET(UK) extends its thanks to AbMAN Ltd, to the University of Aberdeen, to Robert Gordon University and to the AbMAN community for the hard work and cooperation which enabled the operation to proceed so smoothly.

Two further networks, LMN and Kentish MAN, are now in the process of transitioning. The project for each regional network will be planned according to that network's particular circumstances and will be designed to ensure there is no disruption of service for JANET users: we remain committed to the principle of regional delivery and recognise that 'one size fits all' cannot be appropriate within a structure that recognises regional diversity. Thus, while operation and management of LMN will be brought fully in-house, Kentish MAN services will be moved into KPSN, the county-wide Kent Public Service Network, as this gives the most cost-effective way of continuing to meet the needs of HE and FE in Kent. Joint planning meetings have been held by JANET(UK), Kentish MAN and Kent County Council to ensure that KPSN can meet the technical requirements of the JANET community, and an upgrade of the KPSN core to 10Gbit/s will ensure that former Kentish MAN sites continue to receive the quality of service to which they are accustomed.

AUTHENTICATION & AUTHORISATION

Our customers already enjoy the benefits of using federated authentication to access both web-based services, through the UK Access Management Federation, and wireless and other networks at organisations participating in eduroam. The new **Project Moonshot** aims to widen these benefits beyond just web-based services to many other types of applications: for example to simplify access to out-sourcing providers who are increasingly providing services such as storage, email and instant messaging to the JANET community; and for the High Performance Computing community, who are interested in improving business continuity and widening access to their facilities.

It is an ambitious project and JANET(UK) has organised contributions from world experts in the relevant technical communities. We have developed and documented the majority of the architecture within draft technical specifications; we have performed a technical feasibility analysis of the architecture; we have consulted extensively within the JANET and international research and education communities, and with the relevant standards development organisations and vendors; and we initiated the process of establishing an IETF Working Group to address standardisation. This Working Group has recently been approved and will meet for the first time in November. We anticipate delivering proof-of-concept software by the end of the 2010 calendar year.

The new **JANET Certificate Service** was launched on 18 November 2009, issuing server certificates via the Comodo Certification Authority. So far a total of 5232 certificates have been issued under the new automated system, making a saving of over \$784,000. The certificates provide users with some assurance of the identity of the server they are visiting – for example, to view a web site – and therefore provide assurance that personal information such as passwords or financial data may be entered safely into the web interface.







120 organisations now participate in the **eduroam** service offered over JANET, formerly promoted as JANET Roaming. A programme of technical enhancements has improved the overall ease of use of the service this year, and two business case papers have been produced and are available on the JANET website for download: one for managers building the case for the introduction of the service at their organisations and one for members of IT departments who wish to inform senior management about eduroam.

Representing all sectors of the community, a **Federation Expert Group on Portal Design** has been assembled from those working within, or supplying access management and/ or portal services to, the education and research sectors. The group exists to study and develop ideas for web portal access to Federated Access Management.

www.ja.net/moonshot www.ja.net/jcs



SUPPORTING EDUCATION & RESEARCH

SHARED DATA CENTRES & CLOUD COMPUTING

Institutions increasingly understand that data centres consume resources and large amounts of power and are not environmentally friendly. Nor, with the opportunities afforded by cloud computing, does running their own dedicated data centres necessarily provide competitive advantage or improved business efficiency. JANET offers an opportunity for organisations to house data separate from the organisation, for applications to be hosted and made available, and for shared data centres and cloud solutions to be realistic options for organisations.

JANET(UK) has participated in a number of studies around the country, looking at ways of sharing data centres between organisations, and has provided a sector-wide strategy analysis to HEFCE. Valuable work continues in this area and studies have shown that shared data centres offer the potential to save the sector £100 million+ over 15 years while improving services, resilience and environmental efficiencies.

Allied with this migration of services off-campus is an increasing uptake in cloud offerings, from infrastructure through to application levels. An early example has been the widespread move of student email to Microsoft and Google solutions. However, cloud provision models offer substantively different challenges from traditional oncampus service provision, with key areas including service level agreements, security models and not least network connectivity.

Part of the output of the strategy work is a proposal to create a sector-wide brokerage for data centre and cloud services. JANET(UK) is working with universities, commercial providers and funding bodies to establish such a brokerage to support sector organisations as they increasingly migrate to these new opportunities, and to bring a coordinated focus to the opportunities for cloud provision across the sector.



MEETING HIGH DEMAND

One of the challenges facing JANET(UK) is how we address the ever-increasing demands of network delivery and the distribution of Ultra High Definition and other emerging media formats beyond the standard currently offered. JANET(UK) is a key infrastructure partner for the University of Essex, which opened its new Media Laboratory – the first European facility to offer an 8K node – to researchers, networkers and media professionals on 12 November 2009. The new laboratory offers unique transmission and visual capabilities, with the ability to stream videos in real time at a resolution 16 times higher than what is currently classified as High Definition.

Essex is also one of the five UK universities whose photonics laboratories are linked to form the **JANET Aurora** optical fibre testbed for research on photonics and optical systems, funded by HEFCE via JISC. As well as interconnecting research groups at the member universities, it also provides access to intermediate locations along each fibre path where additional equipment can be sited. Research – for example, trialling prototype equipment and testing advanced network architectures – is made possible under real operational conditions with minimal constraints, and in a way that would be impossible on a production network carrying real traffic.

Meanwhile the **JANET Lightpath** service provides the lightpaths that let the university link to its collaborative partners internationally. It can also provide circuits for use as an access mechanism to other locations on JANET.

www.ja.net/aurora www.ja.net/lightpath



ENRICHING LEARNING

VIDEOCONFERENCING

Videoconferencing typically takes place between venues: that is, specific rooms containing the specialised equipment needed for a videoconference. **JANET Videoconferencing**, which provides videoconferencing to the JANET community, now has over 6100 registered venues available. For those without access to a venue a new feature of the service lets registered service users participate in booked videoconferences without having to use special hardware or software endpoints to connect to the conference. All a user needs is a Windows desktop or laptop, a webcam and a headset with microphone to join in. This feature will shortly be extended to allow users to talk desktop to desktop, making it even more accessible to the academic community we serve.

A videoconferencing application available through JANET Videoconferencing is **Access Grid**, which uses videoconferencing tools to let people in different locations around the world meet together in a single virtual venue. Support and assistance are provided by the Access Grid Support Centre (AGSC), managed by JANET(UK).

www.ja.net/video



VIDEOCONFERENCING APPLICATIONS

- A programme run throughout
 England by the Met Office using JANET
 Videoconferencing aims to encourage the
 take-up of science and maths in schools.
 Presentations are given by experts at the
 Met Office following which students are
 invited to put questions to the presenters.
 As well as encouraging science takeup
 another effect has been for the Met Office
 a world leader in climate change
- to reduce its own carbon footprint,
 representing the UK at conferences
 worldwide without the need to add to
 one of the very causes of world pollution –
 international air travel.
- The first collaborative Access Grid meeting in UK Further Education took place when Ashton Sixth Form College, the first Further Education institution to have an Access Grid Room installed, acted as host to the SMILT (South Manchester Information Learning Technology) RSC Group, meeting with the CEC (Cumbrian eLearning Collaboration) at Carlisle College over Access Grid. With money saving and green initiatives at the forefront of everyone's mind, the AGSC was able to showcase that its supported products are cost effective, green methods of enabling video collaboration.

JANET TXT

JANET txt received a 'Highly Commended' accolade for Innovation and Initiative at the annual Government Opportunities (GO) Magazine National Excellence in Public Procurement Awards 2010, for its success in a trial run by Royal National Institute for the Blind (RNIB) College. Working closely with the development team from PageOne, which provides the service, the JANET txt system was integrated with the College's speech software, Jaws 8, and piloted for one term with a select student group by sending out general College information that would have previously been distributed in global emails and newsletters. The pilot was so successful that now the college is researching other areas where the JANET txt messaging system could be used, such as communicating news and information to parents and applying it to administrative functions such as timetable reminders and attendance queries.

www.ja.net/txt



SECURITY & REGULATION

As well providing the physical infrastructure of the JANET network and the JANET services that run over it, JANET(UK) maintains a combination of operational vigilance and active engagement in the regulatory process that provides the framework in which we all operate. A new blog on JANET(UK)'s activities in the area of regulation, written by our Chief Regulatory Advisor, has been created and can be found at **webmedia.company. ja.net/edlabblogs/regulatory-developments/.**

REGULATION

JANET(UK)'s Chief Regulatory Adviser has been elected as Chair of the Funding Council of the Internet Watch Foundation (IWF) (**www.iwf.org.uk**), the independent self-regulatory body that operates the UK's hotline for reporting illegal content on the Internet and which works with UK network and hosting providers and peer organisations in other countries to minimise the availability of illegal content. As part of its commitment to safe and responsible use of networks, JANET(UK) has been a funding member of the IWF for several years.

Throughout the drafting process of the UK's Digital Economy Bill, which became the Digital Economy Act 2010 immediately before the dissolution of Parliament in April, JANET(UK) was in close touch with the Bill Team to express concerns on behalf of universities, colleges and libraries, pointing out the limitations and side-effects of suggested technical 'solutions' and drawing attention to the success that JANET and its customers have had by dealing effectively with complaints of copyright breach.

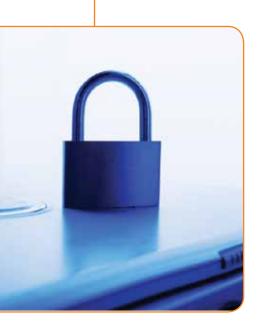
Our comments on proposals on how to deal with the illicit use of the Internet to breach copyright have been sought by the UK and EU film rights-holders' organisations, and we have been working with the Internet Society on a position paper. We were also invited to attend a pre-draft consultation meeting with the Information Commissioner's Office on a Good Practice Guide to personal data online that was launched for public consultation in December.



SECURITY

JANET CSIRT is the Computer Security Incident Response Team for JANET. Its mission is to ensure the present and future security of JANET customers.

The team's primary role is to aid the detection, reporting, investigation and eventual resolution of security incidents occurring on JANET and on our customer's networks. The level of incidents is always on the increase and new types are always being discovered: for example this year CSIRT detected its first mobile phone attack, and there have been increases in DNS attacks and in malicious scripts being injected into websites. However this has been more than matched by a huge increase in the number of incidents that CSIRT has been able to tackle, made possible due to new scripts and technologies developed in-house which also help the team deal with incidents in an automated fashion. Meanwhile fewer customers people are finding themselves blocked as the team is able to tackle problems through more constructive methods.



The team also responds to other forms of network abuse such as spam, copyright infringement and breaches of JANET's Acceptable Use and Security Policies, and assists law enforcement in their investigations by putting them in touch with trusted contacts at our customers as quickly as possible.

CSIRT provides advice and education to the community, this year making half a dozen presentations to bodies such as HEFCE and JISC. The effectiveness of its teaching is reflected in an increase in good practice throughout the JANET community: more sites now practice effective logging, for example, which has proved very helpful in matters of child protection. This year CSIRT has worked closely with CEOP, the Child Exploitation and Online Protection Centre.

Incidents almost always involve other network providers and many transcend national boundaries. The team work closely with other CSIRT teams in the UK, Europe and the rest of the world, and also has relationships with security researchers and sources of security reports. It is a member of TF-CSIRT, the TERENA task force that promotes collaboration between CSIRTs at the European level, and of FIRST, the global Forum for Incident Response and Security Teams. Attending this year's FIRST conference proved very helpful in gathering new perspectives on old problems. CSIRT also takes an active role in the development of the RTIR open source incident handling system targeted for computer security teams and has been accredited by the TERENA Trusted Introducer service.

www.ja.net/csirt



CSIRT EVENTS

• A security-themed stakeholder workshop in September focused on the items that JANET customers consider to be major threats and the ways in which JANET(UK) could further assist the community in addressing these threats. The workshop was well received by delegates from all sectors of the JANET community.

www.ja.net/company/ stakeholders.html

 72 delegates attended the CSIRT conference in October. Feedback was very positive on the wide range of talks, which covered policy, legal and technical topics.

www.ja.net/services/events/2010/ JANET_CSIRT

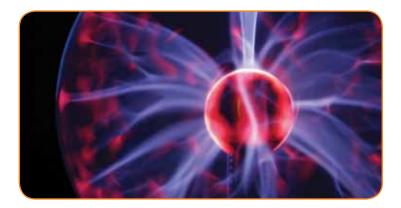


PART OF THE GLOBAL NETWORK

GÉANT

JANET is one of the 33 European networks that together form the GÉANT Service Area, a 'network of networks' within Europe that creates the most advanced international research network in the world. With the launch in December of **GN3**, the third generation of GÉANT, JANET users can transfer vast quantities of data and collaborate across multiple disciplines with much of the rest of the world with even greater ease. JANET lightpaths help distribute the 15 petabytes of data generated annually by the Large Hadron Collider at CERN to 11 primary processing centres around the world, including the Rutherford Appleton Laboratory in Oxfordshire. Many JANET-connected users also make excellent use of GÉANT's connections to NRENs in other world regions: for example, UK research institutions at the Rutherford Appleton Laboratory, the European Bioinformatics Institute and the European Centre for Medium-Range Weather Forecasts between them account for a significant part of the overall GÉANT traffic which comes from South East Asia.

JANET staff are contributing to three key GN3 projects. **eduPKI** aims to ease the adoption of digital certificates in a cost-effective way; **eduroam** provides secure roaming connectivity to users at hundreds of participating institutions across Europe; and **eduGAIN** aims to establish a confederation of identity providers that will enable member organisations associated with different federations to interoperate.



JANET(UK) staff and members of the UK academic community have been involved with the new GÉANT programme in various ways from the outset. Their work has helped place the UK at the heart of European networking and enables us to influence its direction to the benefit of our own community.

- Bob Day, CTO of JANET(UK), is a member of the Board of DANTE. The Board's role is to ensure that these programmes meet the collective needs of the participating NRENs' stakeholders in the most cost-effective manner.
- Josh Howlett, JANET(UK)'s
 Middleware Architect, has
 been seconded to the GÉANT
 programme to lead a key activity
 on federated end-user services.
- Steve Hogger, Head of International Relations, has been elected to the GN3 Executive Committee which is responsible for ensuring successful delivery of the programme.



THIS COST EFFECTIVE SOLUTION PROVIDING A TENFOLD INCREASE IN CAPACITY IS NOT ONLY ESSENTIAL FOR THE EFFICIENT AND EFFECTIVE FUNCTIONING OF EDUCATIONAL INSTITUTIONS AND PUBLIC SERVICES ON A DAY-TO-DAY BASIS BUT ALSO ENHANCES THE CAPABILITIES FOR DATA SHARING AND BUSINESS DELIVERY WITHIN THE REGION



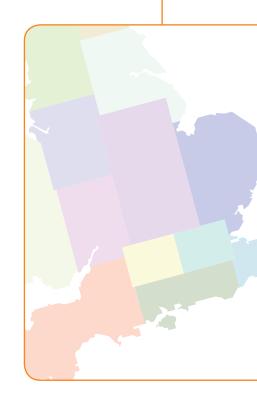
WORKING WITH OTHER PUBLIC SECTOR NETWORKS

EASTERN

All the principles of effective and efficient working together across the public sector in line with government ICT strategy were demonstrated this year by the joint procurement of EastERN, a new regional infrastructure in the east of England for HE, FE, schools and local authorities. The joint procurement by JANET(UK) and E2BN, the East of England Broadband Network, has resulted in major cost savings to the public sector and delivered increased bandwidth to the customer base.

By procuring the network together, both JANET(UK) and E2BN were able to share the costs of delivering a regional infrastructure. At the same time the combined skills and expertise of both companies ensured the network was designed to address the specific requirements of data traffic in the region, whilst enabling connectivity to wider geographic locations. The common infrastructure, standards and capabilities make it easier for the joint network to join up public services, which facilitates interworking and interoperability and reduces the replication of infrastructure and duplication of effort.

Meanwhile, as demand for broadband usage continues to increase significantly in the east of England, this cost effective solution providing a tenfold increase in capacity is not only essential for the efficient and effective functioning of educational institutions and public services on a day-to-day basis but also enhances the capabilities for data sharing and business delivery within the region. Furthermore, as demand for bandwidth grows within the region, upgrades to connections can be achieved in a seamless manner due to the scalable nature of the network. Users benefit from a reliable and resilient network and improved opportunities for shared services while the network also has the potential for wider use by local government services in the future.



GLOW

JANET(UK), along with Thus, delivers the network which connects all of Scotland's 32 local authorities and five other educational sites onto the JANET network. Glow Interconnect 2.0, managed by Learning & Teaching Scotland (LTS), was launched successfully in February and provides high bandwidth communications between the local authorities, the Glow datacentre and other national bodies such as LTS, the Scottish Qualifications Authority and SEEMIS.

The Interconnect 2.0 allows all of Scotland's state primary and secondary schools to access the Glow Intranet (the world's first national intranet), web-based resources and the rest of the JANET community, while the Glow Intranet itself has the means to reach its potential 800,000 users including teachers, administrative staff, pupils and parents. All of Glow's services are underpinned by the Interconnect, including videoconferencing facilities, and Scottish local authorities can use the full range of JANET services.

Thus delivers the Interconnect 2.0 service to the five JANET PoPs in Scotland, which are located at Aberdeen, Dundee, Edinburgh, Glasgow and Inverness, and all local authority traffic, once it reaches the PoP, is transferred over the JANET network: JANET therefore plays a major role in providing global Internet access and services within the backbone across Scotland.





NHS

The full N3 JANET gateway service, jointly funded by JANET(UK) and the Department of Health, went live at the end of June 2010.

The main initial benefit of the new service will be a much improved response to university web services accessed from N3, the core network for the NHS in England and Scotland. This new dedicated and resilient Gateway will take all the data transfer between the two networks and ensure all N3 traffic for JANET is routed correctly, leading to quicker and more responsive access for N3 users such as students on clinical placement and NHS staff who work closely with universities on teaching and research. All network traffic between N3 and JANET is routed through the new gateway which also provides the infrastructure for developments in the future: for example it is planned to develop formal projects with the NHS to find a way forward on sessions initiated in JANET accessing N3 services, and a strategic solution for videoconferencing.

PSBA NETWORK

The Welsh Video Network (WVN), managed by JANET(UK), has an excellent track record in delivering reliable, leading-edge videoconferencing services and support to the tertiary education sector in Wales. The Welsh Assembly Government's PSBA Network is now planning to expand similar benefits more widely across the whole public sector in Wales. The WVN team is working with the PSBA Network and with other colleagues to develop future collaboration services and support that can be made more widely available and more cost-effective, and add further value to education and research across Wales.

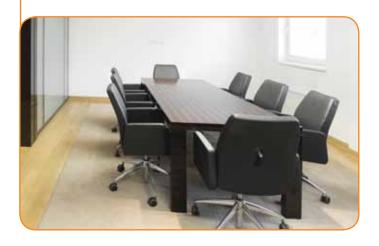
EXAMPLE USES OF

THE NHS GATEWAY

- The Wellcome Trust Sanger Institute collects anonymised chromosomal anomaly data direct from NHS clinicians and inputs this into its DECIPHER database, which helps clinicians evaluate catalogue submicroscopic structural duplications, deletions and rearrangements in the genome called CNVs and determine whether or not they are linked to the patient's problems. Without the N3 JANET Gateway it was becoming very difficult for the clinicians to do this and support was being lost. Involvement in the early adopter Gateway took this problem away and with the new Gateway resilience has now beenadded as an extra advantage.
- The University of York has been working under contract to help support Primary Care Trusts across England with the Improving Access to Psychological Therapies programme. It is critical for primary care and mental health services that connectivity to the university servers is reliable and resilient.



A NEW STAKEHOLDER CONSULTATIVE PANEL HAS BEEN ESTABLISHED TO GIVE OUR CUSTOMERS GREATER INPUT INTO THE TECHNOLOGY STRATEGIES RELATING TO THE NETWORK AND ASSOCIATED SERVICES



ENGAGING WITH THE COMMUNITY

STAKEHOLDER CONSULTATIVE PANEL

The JANET community is the greatest resource JANET has for informed input into our direction as a company. This year has seen significant internal re-structuring within JANET(UK) to ensure that the voice of the community is well and truly heard and its needs addressed.

A new **Stakeholder Consultative Panel** has been established to give our customers greater input into the technology strategies relating to the network and associated services. The panel is made up of key organisations that have a direct interest in the strategy, policy and design of the network and its associated services, and will be under constant review to ensure that a broad range of interests are represented. At any meeting, stakeholder interests are represented by appropriately qualified and expert delegates with respect to the topics under consideration. The composition of the panel therefore changes on a meeting-by-meeting basis to ensure the greatest level of relevance to the topic under discussion.

The panel has so far met three times. After an initial meeting in September 2009 to discuss the governance of the group and its operation, a Business and Community Engagement workshop was held in 19 January, attended by 25 representatives from Government Departments, Research Councils, HE, FE, schools, funding bodies, sector membership organisations and JANET(UK); next, aspects of the Service Level Agreement between JANET and JISC were studied at a meeting in May where valuable contributions were made by attendees representing JISC, the HE funding bodies, RUGIT, AoC, Becta, local authorities and JANET. A further meeting is planned for September on security issues, focusing on the items that JANET customers consider to be major threats and the ways in which JANET(UK) could further assist the community in addressing these.

Current membership of the JANET Stakeholder Consultative Panel

- AoC (Association of Colleges)
- Becta
- Department for Business,
 Innovation and Skills
- Department of Education,
 Northern Ireland
- Higher Education Funding Council for Wales
- JISC
- JISC Infrastructure and Resources Committee
- · Learning and Teaching Scotland
- Research Councils
- RUGIT (Russell Universities Group IT Directors)
- SCONUL (Society of College, National and University Libraries)
- Scottish Funding Council
- SFA (Skills Funding Agency)
- SOCITM (Society of Information Technology Managers)
- UCISA (Universities and Colleges Information Systems Association)
- University Alliance
- Welsh Assembly Government

www.ja.net/company/ stakeholders.html



CUSTOMER ENGAGEMENT

Feedback from the Regional Delivery Review of JANET services in July 2009 has led to the establishment of a UK-wide **Customer Engagement** team that pulls together the existing knowledge, specialities and responsibilities of the former Customer Support Division. Understanding our customers, interacting with them and delivering key solutions are high priorities as we seek to meet their changing needs.

The team is split into eight regions and team members focus on increasing our engagement with all our customers: not just promoting JANET services to meet their needs but listening to establish the nature of these needs and to feed them back to JANET(UK). Currently staff are in post for East of England & East Midlands, South West & West Midlands, and Scotland. As well as heading this important task, the Head of Customer Engagement also directs the Training and Events teams, both of which are very much part of the customer engagement process.

TRAINING

Feedback has been excellent on the courses run by **JANET Training** this year, with over 98% of delegates scoring their course as 'Good-Excellent'. Over 70 courses were run throughout the UK in 2009 at ten venues and the number of courses in the portfolio now stands at 19. Work is continuing on development of other new courses including 'Securing Campus Networks and Servers', 'Multicast Fundamnentals' and 'Eduroam Implementation'.

The NetLab training facility is now live, giving delegates access to real networking hardware to configure and interact with. IPv6 is now implemented on Netlab and this was used in the new IPv6 fundamentals course.



A variety of new resources were added to EdLab, JANET Training's online collaboration and support function. The **Networkshop Online** area hosted information and resources for Networkshop, including interviews, interactive maps and programme forums, BoF session information and of course the audio and video from the presentations. For those who were unable to attend, video and audio of the presentations is available to all registered Edlab users at **www.ja.net/services/training/edlab.html.**

NETWORKSHOP

Networkshop 2010

The 38th Networkshop conference and exhibition took place at The University of Manchester between 30 March and 1 April 2010, supported by The University of Manchester and Net North West. Fifty companies had stands at the exhibition, which is always a major part of Networkshop. The bulk of the conference consisted of around 45 parallel sessions with topics ranging from 'Optical Networking' to 'Networking During An Economic Crisis', and proceedings came to a close with a look forward, as a presentation on 'An Infrastructure Challenge in the Digital Economy' explored some of the opportunities and challenges in ubiquitous computing, crowd sourcing and cloud computing. These are sure to be hot topics at future Networkshops and important applications for the JANET community. Slides from the presentations are available at www.ja.net/services/events/2010/ networkshop-38.html.

Networkshop 39 will take place at the University of Hertfordshire, de Havilland Campus from 12-14 April 2011. Further details are available at www.ja.net/services/events/networkshop-39.html.

Networkshop enquiries should be made via the Networkshop Administrator at networkshop@ja.net.









THERE ARE AN INCREASING NUMBER OF WAYS OF KEEPING UP TO DATE WITH JANET AND ITS WORK.



KEEPING IN TOUCH WITH JANET

As well as the website at **www.ja.net** there are an increasing number of ways of keeping up to date with JANET and its work.

REGULATORY DEVELOPMENTS

Keep informed on current legal developments, and JANET(UK)'s work to understand and influence them, by visiting our Regulatory Developments blog, maintained by the Chief Regulatory Advisor: webmedia.company.ja.net/edlabblogs/regulatorydevelopments/.

JANET DEVELOPMENT

The JANET Development team record their experiences on Development Eye at: webmedia.company.ja.net/edlabblogs/developmenteye/.

You can also now follow the various members of the Development Team on Twitter:

http://twitter.com/#/list/JANETDev/team.

An RSS feed is also available http://pipes.yahoo.com/pipes/pipe.run?_id=92f2a815 c506b33ddf4737310c88c0d0& render=rss.

JANET NEWS

Our quarterly newsletter, JANET News, is now available in HTML format at: **www.ja.net/janetnews-online.**

To be subscribed to the mailing list and have the HTML version of JANET News sent directly to you, email us at: janet-news@ja.net.

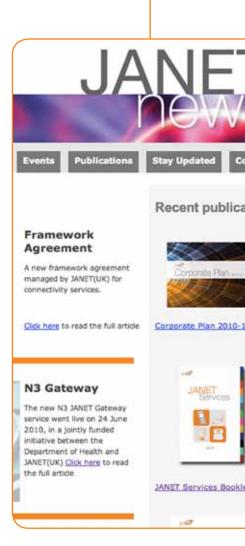
JANET TRAINING

JANET Training run two Twitter accounts:

- @janettraining for news and comment on courses available
- @nwsonline to discuss Networkshop.

EBOOKS

An increasing range of JANET publications are being made available as ebooks (EPUB format): www.ja.net/services/publications/ebooks.html.



ja.net







2010

JANET PUBLICATIONS 2009-2010

Corporate Plan 2010-2012

www.ja.net/documents/company/corporate-plan-2010.pdf

SERVICES

JANET Services 2010

www.ja.net/documents/publications/general-information/janet-services.pdf

Videoconferencing

www.ja.net/documents/services/video/videoconferencing.pdf

The Benefits of Videoconferencing

www.ja.net/documents/services/video/benefits-of-videoconferencing.pdf

Videoconferencing for Schools

www.ja.net/documents/services/video/vcguide-for-schools.pdf

DEVELOPMENT

The JANET Network: Help Plan the Future

www.ja.net/documents/development/janet-six/janet-network-requirements.pdf

Supporting Research

www.ja.net/documents/development/support-for-research/research-booklet.pdf

JANET Development Programme 2010

www.ja.net/documents/development/development-booklet.pdf

FACTSHEETS

Investigating Copyright Complaints

www.ja.net/documents/publications/factsheets/077-investigating-copyrightcomplaints.pdf

Using Screen-Sharing Systems

www.ja.net/documents/publications/factsheets/078-screen-sharing.pdf





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).

For further information please contact:

JANET Service Desk

Lumen House, Library Avenue, Harwell Science and Innovation Campus, Didcot,

Oxfordshire, OX11 0SG

Tel: 0300 300 2212

Fax: 0300 300 2213 E-mail: service@ja.net

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Availability

Further copies of this document may be obtained from JANET Service Desk at the above address. This document is also available electronically from the Publications pages of the JANET website at http://www.ja.net

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