

JANET

News

JANET First at 100Gbit/s

page 3

Celebrating 25 Years of JANET

page 5

Three New Choices for Videoconferencing

page 6

Networkshop 37 at The University of Cambridge

page 9

Contents

■ News	3
JANET First at 100Gbit/s	
JANET(UK) appoints Head, Strategic Business	
Result of JANET Talk Trial	
Duncan Rogerson: 1968 – 2009	
Dawkins Down Under	
Celebrating 25 Years of JANET	
Reduce your Carbon Footprint with Videoconferencing (and other options)	
Adult Learners' Week	
■ Development	7
Network Access: Trials and Strategy	
Field trial on JANET Aurora	
■ Community	8
JANET txt has reached its second birthday and continues to go from strength to strength	
NHS HE Forum	
■ Training and Events	9
Networkshop 37 at The University of Cambridge	
Twittering at Networkshop	
Training and Events Update	
Recent Publications	12

Editorial

As remarked on by various stories in this issue, JANET celebrated its 25th birthday on 1 April

The founders of JANET would still recognise its aims and ethos, but if any of them had been transported through time direct to the present day then its reach, its speed and its technological underpinning might at the very least raise eyebrows. JANET at its unveiling was a 9.6kbit/s network serving 60 universities and research councils. It was operated by a group called the Network Executive. At the time the Internet was beginning to emerge, but the orthodoxy was the use of (then) CCITT and other recognised international standards such as X.25.

Now JANET connects 18 million users, it covers every area of education and research in the UK, and the backbone is made of optical fibre. The Network Executive became part of the Joint Network Team, which itself became the JNT Association – a.k.a. JANET(UK) – and the 9.6kbit/s has blossomed to 40Gbit/s (with, as reported in this issue, 100Gbit/s in some sectors of the network). It is the kind of growth that is very difficult to plot meaningfully on a graph, unless the y-axis has a logarithmic scale. And even though JANET is still a private network for a carefully defined user base, a JANET user can in principle contact anyone else in the world via the Internet – and the IP protocol.

Our hypothetical time travellers would be less surprised if they considered that JANET's history has been one of constant, non-stop development. They would certainly see plenty of evidence to support this. Other reports in this issue include 'three new choices for videoconferencing' and the second birthday of JANET txt – a service using a technology undreamed of in 1984.

We also report on a very successful Networkshop event held at Cambridge in April. Networkshop has always been an integral part of JANET's development. From the very beginning, everyone key in developing JANET made reports at the early meetings, which took place even before the network existed. The results were factored in to the unification of JANET as a single network.

Networkshop, and everything else reported on here, are all part of the constant drive for improvement that makes JANET the world-class network it is today.

Ben Jeapes
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JANET First at 100Gbit/s

JANET is the first National Research and Education Network in the world successfully to complete a 100Gbit/s network trial.

The Technology

The trial was set up using three adjacent wavelengths on the standard 50GHz grid as used on the JANET backbone. Its aim was to demonstrate the operation of 100Gbit/s transmissions without disruption to other network traffic. The central wavelength carried test traffic at 100Gbit/s, with the two neighbouring wavelengths independently carrying other test traffic at 10 and 40Gbit/s.

A major limitation to high capacity transmission over optical fibres is signal spreading, or dispersion, due to effects within the fibres which affect different polarisations of light to different degrees. This is particularly important above 10Gbit/s where the choice of modulation techniques for the optical signals can make a big difference to their sensitivity to this signal spreading, or polarisation mode dispersion.

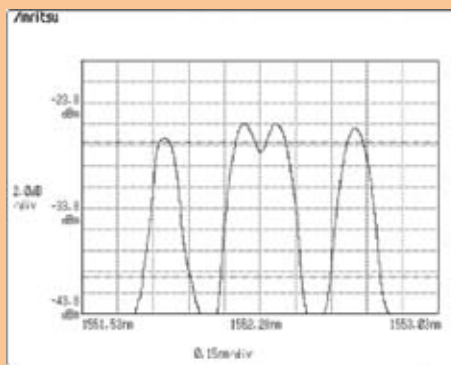
This sensitivity was tested during the trial by incorporating a device in the signal path on the fibre which emulated dispersion. As the amount of dispersion was increased so

To provide the services needed by JANET users, the network itself must be world class in terms of the technology used and the services provided. This means that JANET(UK) must ensure it continues to be

at the forefront of network evolution and provide a network that is fit for purpose and highly reliable. In 2008 many of the JANET

communications on each wavelength eventually failed, but with the 100Gbit/s wavelength failing last, showing a high tolerance to large amounts of dispersion.

The graph shows the distribution of optical



power for each of the three wavelengths within its 50GHz channel. The double peaked structure of the central 100Gbit/s wavelength is a feature of the modulation technique used in the prototype equipment. Comparing the two outer peaks, there is also a subtle broadening on the right hand side which is the wavelength carrying the 40Gbit/s signal.

core backbone circuits were upgraded to 40Gbit/s in response to traffic level growth. With network traffic set to continue to broadly double every eighteen months on JANET, some of the busiest circuits on the

JANET core will need to be upgraded from 40Gbit/s within the lifetime of the current backbone. The next evolutionary step in network transmission capacity is to 100Gbit/s per wavelength on the optical fibres.

Although the standardisation process for 100Gbit/s technology is due to complete in 2010, enough of the process has completed already to allow equipment manufacturers to build prototype products. Nortel Networks is one such manufacturer, with an advanced 100Gbit/s prototype interface that sits in one of its mainstream optical transmission platforms of the type used on the JANET core backbone network.

With this in mind JANET(UK), working with both Verizon Business and Nortel Networks, conducted a trial of Nortel's 100Gbit/s optical channel technology on a separate 103km section of fibre optic cable provided by Verizon Business between two JANET core network points-of-presence in Reading and London. The trial took place in April 2009 and very successfully demonstrated the technology.

Further 100Gbit/s trials are envisaged as the standardisation process heads towards completion and manufacturers develop their first commercial products, leading to the capability to deploy the technology on JANET as and when required.

Jeremy Sharp
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JANET(UK) appoints Head, Strategic Business



Daniel Perry has joined JANET(UK) in the newly created post of Head, Strategic Business. Reporting to the CEO he will be responsible for

supporting the development of the company's business strategy to ensure that the JANET network and service provision continue to be sustainable, appropriate and fit to meet the

needs of the network's developing stakeholder and user bases.

The new post has been established to ensure that the future business models for network and service provision are effective, efficient and appropriate in the rapidly changing environment in which JANET(UK) operates.

Dan brings with him significant senior management experience and a proven track record of successfully developing and implementing commercially viable strategies for organisations and products in the academic sector. He has developed cutting edge solutions, such as a leading portal for 3000+ students, and contributed to new thinking in a range of disciplines. Originally from a science and technology background, Dan

is experienced in working to deliver solutions that create sustainable value for multiple stakeholders. He has an MBA from Manchester Business School and is a member of the Chartered Institute of Marketing.

Tim Marshall, Chief Executive of JANET(UK), commented:

'I am delighted to welcome Dan to the team. He brings with him experience of successful business innovation in the sector and will strongly complement the other skills of the senior team at JANET(UK). As we address the challenges of fast changing technology in financially constrained circumstances the development and execution of effective business strategy is essential and this new role will be key in supporting this objective.'

Result of the JANET Talk Trial

In August 2008 JANET(UK) launched a trial of a voice, video and collaboration application called JANET Talk.

The aims of the trial were to understand the precise requirements and service provisioning model for an 'on net', standards-based SIP service that could be used for communication between JANET users via a software PC client interface, mounted on the user's PC or a SIP-based traditional phone handset. Directory services were also included, to provide a controlled environment within which subscribers could locate each other. The trial offering was informed by results from a survey of potential users. At the time, this showed a requirement for a feature rich collaboration tool for exclusive use by JANET connected users that didn't use peer-to-peer technology.

Over 100 JANET connected organisations signed up to the trial and provided feedback on their experience of using the application. JANET(UK) also commissioned independent

wider market research. The results from both trial feedback and market research showed that the appetite for a service like JANET Talk had diminished. The reasons cited include a preference for alternative solutions that are now available from the commercial sector. These solutions were deemed easier to use, reliable and free.

The JANET Talk Trial ended in May 2009. Taking forward the important lessons learned, JANET(UK) is initiating a strategic review of how collaborative services more generally are provided to the JANET community, with particular emphasis on ensuring the JANET Videoconferencing Service is fit for the future.

For further information on the collaborative strategic review please contact Roger Bolam, Voice and Video Development Manager.

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Duncan Rogerson 1968 – 2009



Duncan Rogerson tragically died on 5 March 2009.

Dunc had a long association with JANET from the early nineties, and since then was very much involved in its development and the broader UK Internet. Despite a couple of periods working in the commercial networking world he always returned to JANET and the JANET community, where he felt at ease and knew he belonged.

Dunc didn't stand on ceremony and was a person driven by his convictions, striving for what he thought was right. He was also good fun to be around and was always very helpful and considerate.

Not only will Dunc be greatly missed, but people like him are very rare, making the loss to those who knew him so much the greater.

Jeremy Sharp
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Dawkins Down Under



JANET joined resources with New Zealand's KAREN (Kiwi Advanced Research & Education Network) on 15 May for an international videoconference featuring evolutionary biologist Professor Richard Dawkins.

As part of the Auckland Writers & Readers Festival, and 150 years after the publication of *On the Origin of Species*, Professor Dawkins was interviewed for an hour by Radio New Zealand National's Sean Plunket on questions sent in by listeners like 'is there a faith gene that explains God?' and 'what is the greatest challenge to you as a writer of popular science?'

To round off the event, Professor Dawkins also announced the winner of the Royal Society of New Zealand's inaugural Science Book Prize.

Our thanks go to KAREN, the New Zealand ISP TelstraClear, the Royal Society of New Zealand and of course to Richard Dawkins for making himself available for this special event.

Celebrating 25 Years of JANET



JANET celebrated its silver anniversary with a dinner at One Great George Street, London on 23 April. The event was attended

by a variety of people involved in the network over the 25 years since.

The network started on 1 April 1984. Three special people who had been involved in the creation of JANET were honoured at the event for their hard work and tenacity in ensuring that the education and research community were able to set up their own telecommunications network in the early 1980s. They were Mike Wells (formerly the University of Leeds), David Hartley (formerly the University of Cambridge) and the networking 'godfather' at the time) and Roland Rosner (first Head of the Joint Network Team).

'The dinner was an opportunity for the community to look back at the success of the network'

Professor Sir Tim O'Shea (JISC Chair) and Roger McClure (JANET(UK) Chair) gave short presentations on the benefits that JANET had brought to the education and research community over 25 years and how it had grown during that time. JANET was recognised as a pioneering network and one of the few publicly funded shared services to be a major success story.

The dinner was an opportunity for the community to look back at the success of the network, to thank those that were instrumental in its setup and to look to the future of JANET.

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Reduce your Carbon Footprint with Videoconferencing (and other options)



Three new features are now available to users of the JANET Videoconferencing Service (JVCS). New equipment at JVCS now allows High Definition (HD) videoconferencing; JANET's Videoconferencing Recording Service pilot is now underway; and live videoconferences can now be streamed for viewers other than the ones attending.

High Definition (HD) shows sharper, more true-to-life colours for better interaction during colour-critical conferences, e.g. medical diagnostics or textile manufacturing. The higher resolution and better picture quality cause less eye and mental fatigue, and the enhanced clarity and natural movement provide crisper images and a superior videoconferencing experience for large groups and classrooms.

The **Videoconferencing Recording Service** pilot is gathering feedback with a view to turning the pilot into a full production service for the JANET community. The service lets customers choose to have their videoconferences recorded and made available for download, which they do during the booking or launching procedure. They can also select which file format they would like their recording presented in. Organisations may want to record videoconferences for a number of reasons, such as making lectures available online for students to view any time, keeping a

record of special guest visits, or recording staff meetings for minute taking at a later date.

Finally, the **live streaming option** is also chosen when booking or launching a videoconference. The service gives the booker a unique URL which they may forward to anyone needing to view the stream. To view the stream, the only requirement beyond a PC with Internet access is a web browser with Flash capabilities. No other special videoconference hardware is required. Those watching the stream cannot participate (unless they arrange to dial in to the session by telephone) but both the video and the content channel (for presentations and such like) can be seen.

There are number of potential benefits to streaming a conference: for example, organisations wishing to see how videoconferencing works can do so before they buy equipment; sessions can be monitored; and conferences can be delivered in lecture style to those unable to attend due to illness or inability to travel for whatever reason (e.g. pandemic travel restrictions). The new facility has already helped two TERENA task forces, TF-EMC2 (European Middleware Coordination and Collaboration) and TF-Mobility (focusing on roaming and networking middleware), reduce their carbon footprint this way.



Although users viewing the stream are not visible to videoconferencing participants, they may however participate in the videoconference by dialling in by telephone or via the live management interface.

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Adult Learners' Week

Adult Learners' Week (9-15 May) is the UK's largest and longest running festival of learning, aiming to encourage more adults to take part in learning activities and events across England. It is held each May and organised by NIACE, the National Institute for Adult and Continuing Education.

For many years JANET has provided the means by which millions of UK learners access online resources, communicate electronically, interact with the Web and conduct research at all levels. The use of JANET for teaching and learning is a fundamental aspect of our objectives and JANET is very proud

of being the enabling network that supports Adult Learning Week.

Thousands of taster sessions and events are held by Adult Learning providers throughout the country. There are numerous examples of people who left school with no qualifications at the age of 16 and who, through engaging with Adult Learning provision, have reached graduate and postgraduate qualification levels, in the process enriching their lives and improving their skills and job prospects. Often people have had a bad experience of learning at school, finding it boring or difficult. Adult Learners'

Week provides a real means to experience opportunities to overcome these difficulties and to get started on lifelong learning. It can be as basic as getting help with learning to read or write; meanwhile, for example, IT courses on how to create a web site, podcast or blog, making use of digital photography, or tracing family history are very popular.

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Network Access: Trials and Strategy

A New Strategy

From time to time, the Strategic Technologies division within JANET(UK) reassesses the strategic direction of one of its areas of activity, updating and reprioritising as required by recent developments in the field. The Network Access programme has undergone this process and a new statement of strategy has resulted, which can be found online at <http://www.ja.net/development/network-access.html>.

JANET(UK) would welcome any feedback readers might have on the revised Strategy. It is open to revision should a need from the community that is not currently addressed come to light. Feedback should be sent to mark.o'leary@ja.net.

Trial Results

JANET(UK)'s 08/09 trial programmes in Mobile IP and Location Awareness are drawing to a close and the results are being prepared for publication to the JANET community.

Both of these projects have integrated the efforts of a relatively large number of participant organisations to explore various aspects of a technology in both lab environments and production services, and to engage in cross-JANET testing where a roaming context was relevant. In addition, both projects have generated detailed technology overview documents to bring the reader up to speed with the potential benefits of these techniques, and with more technical security

reviews critically evaluating their weaknesses and the precautions required to ameliorate them.

Mobile IP material will be published at <http://www.ja.net/development/network-access/mobile-ip/> and Location Awareness documentation at <http://www.ja.net/development/network-access/location-awareness/>.

The participating sites in both of these projects have demonstrated new applications of sometimes complex technologies and captured in their case studies both the frustrations and unexpected benefits of engaging with them. JANET(UK) would like to thank them all for their efforts throughout the projects.

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Field trial on JANET Aurora



The capabilities of the JANET Aurora infrastructure were demonstrated earlier this year in an international collaboration between Photonics researchers. Participants from universities in the UK and other European countries used JANET Aurora to perform a field trial of a transmission technique called Optical Time Division Multiplexing.

Time Division Multiplexing (TDM) is a well established technique where the capacity on a physical transmission circuit is structured into a number of timeslots or containers, each of which can carry a specific number of bytes as a transmission payload. These containers are routed and switched between interface ports to implement end-to-end circuits for customers. This kind of equipment was used in the UKLight network between 2004 and 2009.

Optical TDM extends this concept to the optical networking layer. In this trial, three separate wavelengths on one optical fibre, each carrying

traffic at 43Gbit/s, were multiplexed into separate timeslots on a single 129Gbit/s wavelength on a second fibre. The important feature of this work is that none of the optical signals were converted into electrical signals to perform the multiplexing. All the signal processing was performed in the optical domain, with each of the signals on the three input wavelengths being reshaped and retimed to fit into the timeslots on the single higher transmission rate wavelength. After onward transmission to a second location, the process was inverted and the 129Gbit/s signal was de-multiplexed to recover the signals on the three original wavelengths. This technique successfully demonstrated high-quality transmissions.

This field trial has been an exciting demonstration of the capability of the Aurora infrastructure where equipment in university research laboratories is directly connected to the Aurora optical fibres. Researchers then worked with the equipment during the course of the trials to modify or change

its behaviour to achieve their project goals. The partners in this consortium were brought together by the immediacy of this ability to interact with the equipment in a real operating environment. Each partner contributed their particular expertise and optical processing components to enable the equipment to be assembled to undertake the trial.

The researchers presented their results at the Optical Fibre Communications conference (<http://www.ofcfoec.org>) which was held this March in San Diego, California. The collaboration partners are the Universities of Essex and Southampton in the UK; University College Cork in Ireland; the University of Karlsruhe in Germany; the Athens Information Technology Centre in Greece; and Nokia Siemens Networks Portugal.

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JANET txt has reached its second birthday and continues to go from strength to strength

The JANET txt service provides a comprehensive suite of secure SMS-based messaging services. With over 170 JANET connected organisations using the service, and almost 4 million messages sold, the JANET community is increasingly finding innovative uses.

Administrative tasks such as interview reminders have had a positive effect on course take-up; EMA payment notifications have been extremely popular with students; SMS voting has been taking place as part of classroom teaching; and SMS has also proven to be an effective mentoring tool. JANET txt came into its own during the cold snap in February with SMS playing a crucial role in communication through business continuity plans as the snow caused havoc. Beaumont College, a Specialist College in the North West, is even using JANET txt to provide an authentication mechanism as part of its organisational VPN provision.

The existence of JANET txt has also contributed to developing the SMS market within education and research, and stimulated increased competition from commercial providers. This has again served to benefit the JANET community through greater

development, innovation and competitive pricing. In this vein, JANET txt also continues to develop with a number of additional facilities scheduled to become available.

MoodleMobile

After the successful release of MoodleMobile in the summer of 2008, JANET txt was pleased to launch the additional feature of two-way functionality at the BETT 2009 Show in January. The MoodleMobile plug-in lets users send text messages directly within Moodle, thus creating an easy and cost-effective means of creating a constructive dialogue within the VLE.

JANET txt continues to look at integration opportunities with other relevant systems with education and research, particularly library and management information systems for seamless data transfer.

Voice Blast

Voice Blast will let administrators record messages over the phone, sending it out in one 'blast' to a pre-populated listed of recipients. This is a facility which is of particular relevance to the blind or visually impaired. Once the message has been circulated, the receiver's phone will then ring and

the receiver will be greeted upon answering with the recorded message.

Multimedia Messaging Service (MMS)

PageOne is to enable the JANET txt messaging system to store and exchange images, audio and video via MMS. MMS can help enrich marketing campaigns and facilitate community building, and can also help within a teaching and learning environment, for example providing evidence as part of an e-portfolio.

Document Management

This will let users store and retrieve a wide variety of file types securely online for use at any point in time, from evacuation plans to supporting materials for lessons, term agendas, study handbooks and assessment materials.

Provided by PageOne, JANET txt has low per message costs of 4.2p + VAT, as well as secure connectivity via JANET. It offers the reassurance of a reliable messaging and integration solution with low controlled costs.

www.pageonejanettxt.com

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NHS HE Forum

Keynote sessions on the NHS Research Capability Programme, the challenge for Academic Health Science Centres, and High Performance Computing and Health Applications were held at the latest NHS-HE Forum on 22 April. Many of the presentations are at www.nhs-he.org.uk/forum/22april2009.html.

Malcolm Teague
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Workshop 37 at The University of Cambridge



Workshop 37 was held between 31 March and 2 April in wonderful spring weather on the Sidgwick Campus, University of Cambridge. The location was excellent with accommodation and dining facilities relatively close (for most people!). Anyway, who could object to starting the day with a short(ish) walk through the spring flowers on the way to breakfast? This year there was the added bonus of celebrating the 25th anniversary of JANET on 1 April.

Approximately 350 delegates and 100 exhibitors (37 exhibiting companies) turned up at the West Road Concert Hall

for a mixture of plenary, parallel and 'birds of a feather' (BoF) sessions. After registration and an excellent lunch at nearby Selwyn College, the proceedings started with a welcome by Ian Lewis from the University of Cambridge. He reminded us that since the last time Workshop was held in Cambridge (1978), a lot had changed. In those days the network ran at 9.6Kbit/s. Since then Cambridge themselves have laid 4000km of optical fibre in 80km of trunking and the JANET network runs at up to 10Gbit/s, moving to 40Gbit/s. But networks are not just about 'bits moving down fibre' or just

providing bandwidth. These days there is more concentration on the 'value added' end of the spectrum, collaboration and services, to maximise the productivity of teaching and research. It is these services which will provide the common theme for the upcoming plenary and parallel sessions.

The amazing progress made over the

last 25 years was re-emphasised by the second speaker, John Naughton of the Open University, who gave us a brief history of networks from the original batch processing machines (early mainframes), through timesharing environments that created a sense of community (an indicator of how the embryonic human computer interface would evolve) up to early SMS and now Twitter. If people are given tools to communicate, they will sometimes

use them in surprising ways. 'Networks should no longer be regarded as just a pipe – more a beanstalk up which children can climb to other worlds.'

Having looked at the past and the present, the first afternoon of plenary sessions was completed by the JANET(UK) double act of Jeremy Sharp (Head of Strategic Technologies) and Tim Kidd (Head of Operations), giving a 'State of the Nation' presentation. This included 'Beyond 40G'. By 2011 we will need 100Gbit/s and JANET is starting to look at this. Other topics, many of which were precursors to parallel or BoF sessions, looked at how the network was getting 'Bigger and Better'; applications that were coming up or evolving;

'Reaching Out' to extend the community; and 'The Future'.

The day drew to a close with special interest group parallel sessions and discussion forums in the BoFs. Following the formal sessions and before dinner there was a chance to unwind with a Wine Reception in the Exhibitors' area. The opportunity to review the products and services on offer was enriched by ingenious devices to attract attention including free gifts, lotteries and even a Scalextric track!

Over the course of three days there were 9 plenary sessions, 44 parallel sessions and 8 BoFs covering a wide and varied spectrum of subjects. It was impossible to attend more than a few of the parallel sessions or BoFs and even less practical to report on them. Suffice it to say that they were all well attended, so the programme planners had done an excellent job of providing something for everyone.

Next to the main hall, the JANET lounge provided a 'break-out' area for delegates. This was used for small meetings, catching up with work or even recharging equipment.

Faculty of Law



Concentrating on the plenary sessions, as day 2 progressed one started to see the balance between current issues and activities and looking ahead to the future. The future aspects included Richard Salmon from the BBC with a fascinating insight into the issues and challenges facing broadcasters as they look beyond HDTV and try to resolve the question: 'Is TV an art form or a window on the world?' How do you balance the requirements of bigger screens, higher resolutions, 3D etc. whilst still using frame rates that were chosen over 70 years ago?

On the current issues, Paul Sangster from the OpenSEA Alliance talked us through developments in Network Access Control and the evolving risks whilst Richard Clayton from the University of Cambridge discussed effective e-mail spam control. Did you know that Zebras get more spam than Aardvarks as a percentage but Aardvarks get more mail? Interesting stuff which shed new light on some of the problems facing ISPs and network managers.

David Salmon, Research Support Unit Manager at JANET(UK), took us through the research use of JANET, covering among other things the Lightpath Service; High Energy Physics and links to the Large Hadron Collider project at CERN; Grid Enabled Neurosurgical Imaging Using Simulation (GENIUS); Radio Astronomy and Network Research. We also got a peek at some of the future areas.

During the day, the 25th Anniversary of JANET was marked with a specially made cake, cut by JANET(UK) CEO Tim Marshall, and

T-shirts commemorating the occasion were given out.

The conference dinner was held in the fabulously atmospheric Hogwartian setting of the hall at St. John's College. It was a privilege to listen to the after dinner speaker, Professor Mike Wells, who was instrumental in producing what have become

known as the Wells Reports which led to the creation of JANET 25 years ago. Professor Wells gave us a very entertaining and fascinating insight into the birth of JANET. The plenary

on the final morning was given by Chris Smedley, CEO of GEO, on 'Making Super Fast Broadband a Reality for UK plc'. This was about Next Generation Access (NGA), which is not easy to define in a way that can be readily understood. It will be challenging and costly to deliver and will need the joint efforts of the private and public sectors to compete globally. Public sector participation requires 'proof of market failure' while the private sector needs 'proof of demand'. Chris said, 'A major opportunity exists today for Government to invest in critical national



and were less likely to be damaged, intentionally or otherwise.

Tim Marshall, brought Networkshop 37 to a close with an address which perhaps echoed the thoughts of many. It had been an engaging, thought provoking and varied programme. All those involved in speaking, creating and hosting the sessions, along with all the exhibitors, were warmly thanked. Tim told us that within the JANET community it was important to have mutual, professional respect and to share ideas and continue with rigorous debate and analysis of 'the way ahead'. With regard to the current economic climate, it was a distinct possibility that as things improve and the commercial sector comes out of recession, so we in the public sector will still be going through it. The next generation of JANET would need to be customer focused, give value for money and, if possible, deliver far more for far less. He re-emphasised that JANET is here to support UK Research and Education, which '... will need us as never before.'

We left with the call to 're-assemble in a year's time for Networkshop 38,' which will be hosted jointly by JANET(UK), the University of Manchester and Net North West from 30 March – 1 April 2010. To those who have never attended a Networkshop, it is a worthwhile and highly recommended event.

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Twittering at Networkshop

It seems Twitter is like Marmite: you either love it or you hate it. So it was with interest that JANET Training set up a twitter hashtag and news feed for Networkshop Twitters as part of their Networkshop Online facility.

A hashtag is a predefined prefix that allows twitters to tag their messages (tweets). These messages can then be searched and/or feeds created for them. This allows messages about a certain topic or subject to be found easily by other people interested in the topic but not necessarily in the twitter. A good example of this was #uksnow hashtag which allowed people

to track snowfall across the country during the particularly bad weather in February.

In practice, at Networkshop this meant any delegates who included #NWS09 in a tweet could be viewed by others directly within Networkshop Online, so they could keep track of these comments without having to follow the twitters or even know them. JANET Training used it to publish administrative updates, news and even direct support during the event. More interesting, though, were the messages, feedback and conversations from and by delegates. These ranged from feedback on the breakfast (and

confusion over start times) to commentaries on sessions as they happened. This added a new dimension to communication during the conference and showed another way this simple technology can add value if appropriate.

JANET Training plans to provide the same facilities next year and will be interested to see if there are more twitters or if the twitter storm has passed.

Gill Chester
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Forthcoming Courses



JUNE

- Information Security Policies** June 23rd 2009 - Bristol
- Introduction to the UK Federation** June 29th 2009 - Manchester
- Implementing a Shibboleth 2 Identity Provider** June 30th 2009 - Manchester

JULY

- Implementing a Shibboleth 2 Identity Provider** July 1st 2009 - Manchester
- Introduction to DNS** July 2nd 2009 - London
- IP Fundamentals** July 21st 2009 - London
- Virtualisation Fundamentals** July 21st 2009 - Manchester

AUGUST

- Computers, Privacy and the Law** August 5th 2009 - Manchester
- Information Security Policies** August 6th 2009 - Manchester
- Using Logfiles for Security** August 14th 2009 - Birmingham
- Basic Networking** August 18th 2009 - Glasgow
- Basic Router Configuration** August 19th 2009 - Glasgow

Dates and online booking for all courses are available on our website.

A mailing list is available for the distribution of information regarding JANET training courses. Discussion of training requirements relating to the JANET network, suggestions for new courses, locations or course frequencies are also welcomed. To join this list, access the JSCmail site at: <http://www.jscmail.ac.uk/lists/janet-training.html>

Forthcoming Events

JANET CSIRT Briefing

22 October 2009
ICO Conference Centre
22 Berners Street
London
W1T 3DD

More details to follow in the summer

UK federation in Practice

14 October
ICO Conference Centre
22 Berners Street
London
W1T 3DD

Networkshop 38

30 March - 1 April 2010
The University of Manchester

Events Calendar

<http://www.ja.net/services/events/calendar-2009.html>

Reports

Quarterly Report to the Community (February-April 2009)

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General Information

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<http://www.ja.net/documents/development/development-booklet.pdf>



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Published by the JNT Association – ISSN 1755-2397



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