ja.net

JANET
news

NEW Telecommunications
Framework Agreement
page 2

www.ja.net

contents

NEW
Telecommunications Framework agreement benefits
the wider Community

A new framework agreement managed by JANET(UK) for the provision of transmission services will benefit not just members of the immediate JANET community but organisations further afield as well. Eligible users – JANET connected organisations, Regional Network Operators, members of the Purchasing Consortia and members of the Regional Broadband Consortia – can easily meet their own requirements with a chosen list of suppliers via a dedicated website, knowing that all due diligence has been performed and compliance with EU and UK procurement law is guaranteed.

The framework runs for four years until 16 July 2014, and it is estimated that some £60-70m could be spent through this agreement in its lifetime.

Editorial

The JANET backbone is four years old, and while the time might seem to have flown by, stop and think of where you as a JANET user were four years ago. You were probably far more tied to your desk, or at least to a physical connection, than you are now: the surge in wi-fi coverage and use of eduroam will have taken care of that. You or your students might travel less thanks to the massive uptake of videoconferencing over JANET. You may be making use of the vast amounts of research data – for example, from the CERN project – that get transported via JANET lightpaths without interrupting the rest of our traffic.

Even if none of the above particularly affect you, you will probably have noticed, either at work or home, that four years elsewhere in the world of computing has been enough for two new versions each of Windows, Mac OS X and Linux – take your pick. Four years is a long time. It's time to look at the backbone again.

And, as we report in this issue, in recent months we have been doing just that. When the JANET backbone is procured it is only ever with a certain period of time in mind, which means an automatic, periodic reassessment of its function, the technology underlying it and the extent to which it meets the changing requirements of the JANET community. A new requirements gathering process is now underway.

A document that outlines the process has been sent to all JANET-connected organisations and can be downloaded from www.ja.net/six. Meanwhile the requirements of specific groups of users are being gathered through a series of workshops. The first of these, focused on the research community, is reported on in this issue.
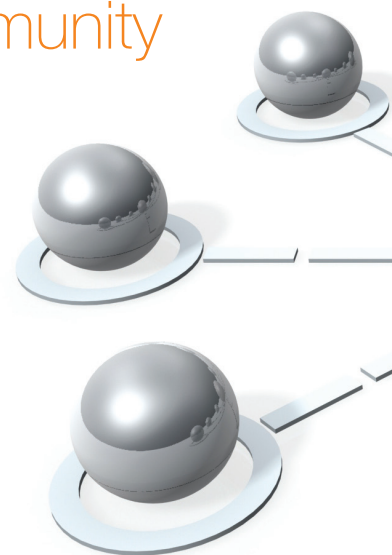
Four years ago we already had a roadmap that pretty well describes where we are now: JANET uses 40Gbit/s circuits in the core network and has undertaken successful trials at 100Gbit/s with our service partners. These have not come about by chance but by careful planning for the years ahead. Help us to do it again.

If you would like to contribute, please contact **jeremy.sharp@ja.net** by the end of November.

Ben Jeapes
Technical Editor
ben.jeapes@ja.net

JANET(UK) initiated this agreement on behalf of the JANET community, and the other participating organisations agreed to be included in the scope on the basis of JANET(UK)'s telco experience and expertise. The transmission services that the framework provides include leased circuits, dark fibre, wide area Ethernet, xDSL and radio. The agreement also includes any future transmission services that might arise over the next four years.

> "
>
> *JANET(UK) initiated this agreement on behalf of the JANET community, and the other participating organisations agreed to it on the basis of JANET's telco experience and expertise.*

How the agreement works

Individual customers need to register through the JANET Service Desk but can then do their own purchasing, say for their own department, on behalf of their organisation.

JANET(UK) has separated the framework into three lots: transmission services (1) within London; (2) for cities other than London; and (3) in non-city areas. Through a dedicated website made available to registered users, members can click on a map of the UK and get a list of suppliers capable of providing transmission services in that area; clicking on each supplier then shows a list of the technologies that the supplier is able to deliver within the region. Alternatively, clicking on different kinds of technology produces lists of suppliers able to deliver it. The data behind the website will be kept fully up to date by JANET(UK).

The website provides spreadsheets that show how the responses of the chosen suppliers to the invitation to tender were analysed. Customers can choose just to buy from the preferred supplier for their lot with a simple request like 'please give me a circuit from X to Y'; alternatively, because JANET(UK)'s analysis might not exactly match their own needs, customers can re-open a mini-competition among all capable suppliers. A mini-competition is equivalent to a full tender process but much faster and less onerous, and the suppliers have already been assessed.

The website also provides a buyer's guide and tools to help select a supplier and complete the purchase.

Selection of suppliers for the framework

The framework was advertised in the Official Journal of the European Union on 29 March 2010. Suppliers who responded were assessed by JANET(UK) as to their technical merit and ability to provide the services described, based on their response to the invitation to tender.

The JANET(UK) framework agreement has been signed by JANET(UK) with each supplier. Individual orders from buyers will use the supplier's individual terms and conditions. The terms and conditions for each supplier are available via the JANET(UK) web pages on each individual supplier's web page.

To make this the best possible deal for customers, JANET(UK) takes no commission and makes no kind of charge to customers for operating the framework.

Queries should be directed to telecomcontractmanager@ja.net. Buyers should register via the JANET Service Desk: service@ja.net.

Benefits for buyers:
- Simpler purchasing
- Ease of access to supplier data: a simple website interface lets buyers choose the best suppliers for their needs
- Time: JANET(UK) has performed all necessary due diligence, invitation to tender etc.
- Avoidance of risk: any purchase made using this simple procedure is fully compliant with UK and EU procurement legislation.

The following suppliers are available under the framework agreement. Cable & Wireless is the preferred supplier on all three lots.
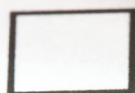- AdEPT Telecom plc
- Babcock International
- BT
- Cable & Wireless Worldwide
- Easynet
- Exponential-e
- GEO
- Global Crossing
- KCOM
- LUNS
- Neos Networks Ltd
- Opal
- Pinacl Solutions
- Surf Telecom
- Verizon
- Viatel
- Virgin Media Business
- Vtesse
- Westica Communications

www.ja.net/telecommunications-framework

news
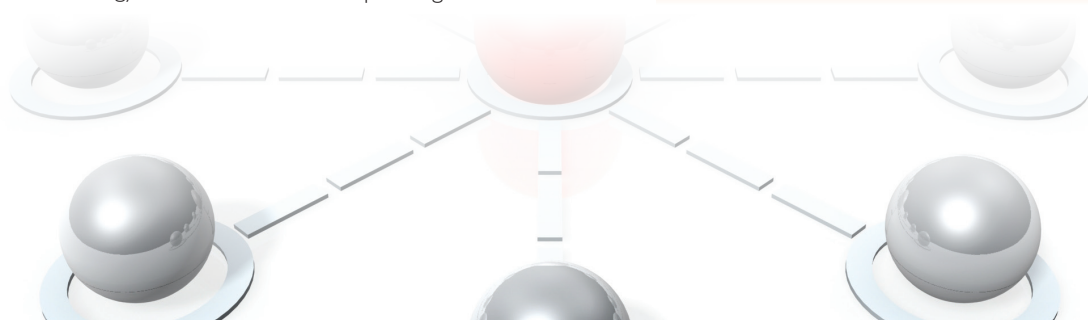
Satisfaction above average
in UK federation's first survey

The first comprehensive survey of the service provided to customers by the UK federation shows a very high level of overall satisfaction, with levels above average for the technology industry, while also identifying areas of interaction with members that JANET(UK) could improve. Federation customer organisations can control access to web services while also protecting personal data associated with their users.

The service provided by

KEY FINDINGS
- Average satisfaction rating of 80%
- Satisfaction levels with training, events, general queries and technical queries all above average
- Federation is helping members deploy technology and understand FAM
- Technical jargon to be reduced for less technical audiences

the federation was evaluated in six areas: events, training courses, website, documentation, customer support (technical and general), and communication. Customers were asked to rate their satisfaction on a scale of 1-7, and the average rating was 5.63 or 80.4%. This put the federation above the average for very high customer satisfaction within the technology industry.

The survey also measured the levels of importance attached by members to the different areas of service provided by the federation, with the highest levels of satisfaction being found with training, events, general queries and technical queries, all of which were also above average. Federation service manager Simon Cooper comments: 'we are very pleased with the high levels of satisfaction with technical queries, which show that we are helping members in deploying this technology at their organisations. The positive feedback received on support queries shows we are also helping the community understand the purpose of federated access management.'

'Findings do also point to some areas of the service we could improve. All recommendations are going to help us create a plan of how to improve these areas, as well as continue to apply effort in those areas where satisfaction is high.'

Simon adds: 'We also need to be flexible enough to meet the changing needs of our members. The findings of the survey reflect our own experience and the general feedback that is received daily from members. We recognise the challenge of catering to a range of users, from pupils at school through to adults in FE, HE and research. Meanwhile, we will continue to liaise with content providers to encourage further take-up by the commercial sector.'

The three particular aims of the survey were: to measure the overall level of customer satisfaction; to identify and produce service benchmarks for future surveys; and to measure the impact of deploying federated access management from an organisation's perspective.

The survey was conducted in April and May 2010 by the independent research organisation Prodata Partners. Prodata sought to get a proportional representation of the sectors represented by the federation's members – education, research and commercial content providers. 302 interviews were completed:

- 130 FE organisations
- 77 HE organisations
- 57 service providers
- 12 Scottish local authorities
- 7 Regional Broadband Consortia
- 7 publicly funded (i.e. not funded by JISC or Becta)
- 5 English local authorities
- 4 research institutions
- 3 outsourced identity providers

The full results of the survey have been made available on the federation website: **www.ukfederation.org/news**

To discuss any aspect of the UK federation, please contact Simon Cooper, UK Federation Service Manager: **simon.cooper@ja.net**

news
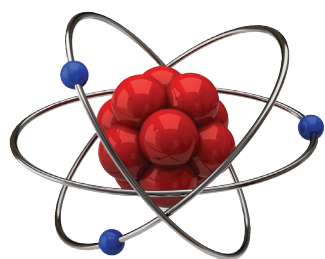
Access Grid and Physics Collide

Access Grid is facilitating the work of a consortium of six universities distributed across the South East of England, working in collaboration to promote and teach physics. Through using the commercial Access Grid tool IOCOM, and with free support and services via the Access Grid Support Centre, the SEPnet consortium is now able to offer a regional approach to teaching physics, sharing costs, resources and expertise amongst all six partners.

SEPnet – the South East Physics Network – consists of the Universities of Kent, Southampton, Surrey and Sussex, plus Queen Mary, University London and Royal Holloway, University of London. IOCOM offers them enhanced flexibility with multiple video feeds, resizeable and repositionable windows, and shared presentation and desktop facilities that make it an ideal tool for collaborative teaching.

SEPnet launched its new Access Grid nodes at a high profile event on 17 May 2010, which provided an opportunity to showcase to members of staff and other interested parties from each institution how Access Grid will work to enhance the breadth of physics teachings the region can offer. Professor Jim al-Khalili from the University of Surrey gave a keynote lecture on 'Black Holes, Wormholes and Time Machines' at this event, with the aim of promoting physics to potential future students, and the use of the IOCOM technology meant participants at all SEPnet organisations could take part in the event without leaving their local lecture theatres.

Katy Boyle
Access Grid Support Centre

Gary Dear, from the University of Surrey, has been instrumental in setting up the Access Grid nodes across the six participating universities. Gary will be one of the guest speakers at the AGSC Training Day on 18 November 2010. Come and hear how Access Grid is working for the SEPnet Community.
www.ja.net/services/video/agsc/trainingandevents/trainingworkshops.html

SEPnet
www.sepnet.ac.uk/

A new IETF working group for federated authentication?

The importance of JANET(UK)'s ambitious Project Moonshot was indicated when there was consensus established at a lively and very well-attended Birds of a Feather session (FedAuth) at July's IETF[1] 78 meeting that a working group should be established for this area.

Project Moonshot is an initiative led by JANET(UK) to extend the benefits of federated identity to non-web applications, such as secure shell and network file-systems. A technical architecture and draft specifications have been developed over the past few months. The proposed working group charter presented to this meeting was based on this work.

The proposed charter will be reviewed and refined by the IETF over the coming weeks and then submitted for approval by the IESG.[2]

1. Internet Engineering Task Force   2. Internet Engineering Steering Group

news

JANET txt service highly commended
at National Excellence Awards

In association with Royal National Institute for the Blind (RNIB) College, the JANET txt SMS service has received a 'Highly Commended' accolade for Innovation and Initiative at the annual Government Opportunities (GO) Magazine National Excellence in Public Procurement Awards 2010.

Based in Loughborough, RNIB College is a specialist institution for people who are blind, partially sighted and/or have learning difficulties such as mild to moderate autism and physical mobility difficulties. The College's aim is to help develop the skills and personal qualities of its students for them to progress successfully on a social level and within their working environments.

RNIB College recognised the benefit of embracing SMS technology to communicate with disabled students and enhance their overall experience. College staff had traditionally used focus groups, surveys, talking notice boards, email and tutorials to communicate with the students, but all of these presented problems; focus groups and tutorials were skewed if only a few students

attended, some less able learners didn't use email or found it difficult, and responses to surveys were slow. Working closely with the development team from PageOne, which provides the service, the 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. Staff hoped that SMS would not only solve this but also help to facilitate a stronger connection and feeling of familiarity with students: by communicating key information such as the college lunch menu, events and activities, technical updates and local town events, it could help to instil a real sense of belonging and consistency amongst students.

With the help of JANET(UK), the college identified the JANET txt messaging system as meeting its needs, including ease of use, cost and integration capabilities: partly as it already utilises the JANET network but also due to the service's resilient infrastructure and

feature rich capabilities. Further, a survey of student mobile habits discovered that over 90% preferred SMS over other means of communication due to its convenience and ability to deliver instant and up-to-date information.

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.

Andrew Davis
Network Services Co-ordinator
andrew.davis@ja.net

To read the RNIB case study in full, visit **www.pageonejanettxt.com.**
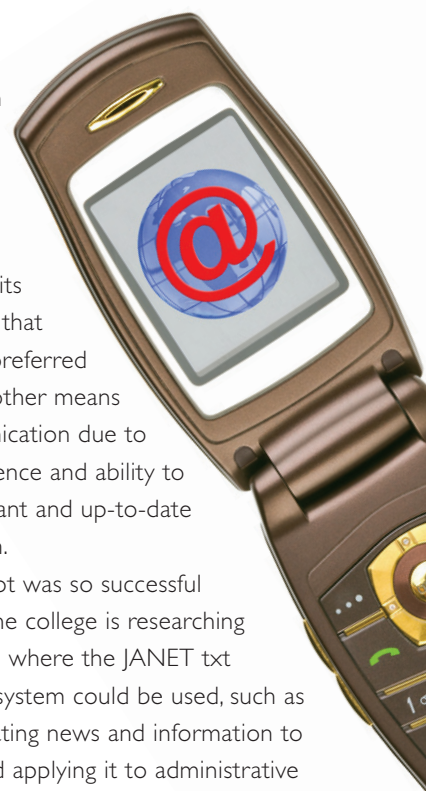
JANET News Online

Last issue's announcement of an electronic JANET News (available at www.ja.net/janetnews-online/) drew a very encouraging response, with a large proportion of our readership opting to receive it as an HTML newsletter delivered direct to their inbox. We encourage the rest of the readership to follow suit!.

JANET News has always been available

as a PDF on our website and the FSC tree logo at the back of each printed issue tells you it was produced to a very strict environmental standard. The HTML version goes one step further in both environmental responsibility and usability, combining the interactivity of a website with the same design style as the printed issue.

To sign up, please send an email to **janet-news@ja.net** or visit **https://www. jiscmail.ac.uk/JANETNEWS-ONLINE.** Please note that you will also need to sign up to a JISCmail account, if you do not already have one. JISCmail will send you a confirmation email to which you need to respond for your account to become active.

news

N3 JANET Gateway Goes Live

> **"**
> *The N3 JANET gateway is a critical link to enable connectivity for the university's student and staff based in remote NHS Trusts.*

a local NHS organisation responsibility to ensure that use is appropriate through local information governance arrangements: local organisations should review their own local access agreements to take full advantage of this new service.

Malcolm Teague
NHS Co-ordinator
malcolm.teague@ja.net

The new N3 JANET Gateway service went live on 24 June 2010, in a jointly funded initiative between the Department of Health and JANET(UK).

The main initial benefit of the new service will be a much improved response to university web services accessed from N3. 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.

'The N3 JANET gateway is a critical link to enable connectivity for the university's student and staff based in remote NHS Trusts. It is important that this link is both robust and resilient,' says Martin van Eker at the University of Bristol Medical School.

As part of a wider commitment to ensure that the N3 and JANET communities are properly able to

access applications and content on other public sector networks, the new Gateway will provide a platform for further development in improved support for joint working in clinical education and research. Officials from both the NHS Technology Office and JANET(UK) continue to work with the Cabinet Office Public Sector Network team in realising a shared goal: seamless and cost-effective high-bandwidth interconnectivity between all public sector networks across the UK.

The service was developed after more than two years experience with an early adopter N3 JANET Gateway that gave access to selected, specific JANET connected organisations. The new service is resilient with a link in London and a back-up link in Manchester, and has been implemented with sufficient bandwidth capacity to meet current needs easily and also to cope with the additional demand anticipated as a result of increasing collaboration between practitioners in health, education and research. It remains

Example uses of the Gateway

- The Wellcome Trust Sanger Institute collects anonymised chromosomal anomaly data direct from NHS clinicians and inputs this into its DECIPHER database. 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 now resilience has been added as an extra advantage with the new Gateway.

- 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.

Further information
www.nhs-he.org.uk/nhs-he-gateways.html
www.pspg.nhs.uk
(requires registration)

news

Marshall's 5 Factors

At the UCISA Conference in March, JANET(UK) CEO Tim Marshall, gave a speech on the 5 key factors that he considers important in facing up to the challenges that lie ahead.

As the budget reductions hit us we will all be faced with tasks which initially seem to us impossible. Things often appear impossible only because our default position is to assume there are no alternatives to the ways in which we have always acted in the past. When we start to look less at the features and more at the benefits that our customers require it becomes clear that achieving the desired outcome may not be so impossible after all. Such an outcome-based approach combined with free and adventurous thinking is surely one component of moving forward successfully in a difficult and challenging world. Valuable as they are, today's environment leaves no time to reach for the latest management book on 'surviving the downturn' – indeed writing one of these tomes seems to be the current boom businesses! An effective approach to dealing with future challenges is to harness our own experience and use it in an innovative way. Organised common sense still has great value and this is what the five factors set out to achieve.

Tim Marshall
CEO, JANET(UK)
tim.marshall@ja.net

1.

Know your business

This sounds obvious but how many of us, when asked what we do, tell them exactly that: what we do? What the enquirer really wants to know is what we contribute. Rather than say 'I configure routers' perhaps our answer should be more 'I enable students and researchers to exchange knowledge'. When at management school there was an exercise where we had to come up with a 15 second sound bite that could be extracted from a 1-minute answer. It was quite challenging to come up with a few words which encapsulated a complex business: however, it did help focus on what was important and what wasn't. I commend this exercise to you in a quiet moment to reality check as to whether you really know what the purpose of your activity is.

2.

Know your numbers

Many operational people instinctively prefer to leave the numbers to the bean counters, particularly in a sector which has been substantially grant funded and based on annual cash flow profiles. This may well work in the good times but when the going gets tough it is crucial to know the DNA of the finances. I have found the 'know your numbers' factor really resonates with many colleagues in the research and educational information technology discipline. When the budgets are cut, if you don't know your total cost of ownership and how the costs break down then it is highly unlikely that you will be able to adapt and flex effectively without damaging the quality of provision to those who use the services ... unless of course you were grossly overfunded in the first place!

news

Marshall's
5 Factors

1. Know your business
2. Know your numbers
3. Strive to be trusted
4. Empower the team
5. See over the horizon

5.

See over the horizon

Of course, if this could be done 100% accurately then most of us would now be occupied with our favourite pastime 365 days a year! Just because this is challenging, however, it is no excuse for not trying. In a fast changing technical and political environment it is essential to explore the likely scenarios that are just over the horizon and be able to respond quickly to the options as they become more certain. To sit back and wait for others to 'tell us' is a recipe for disaster: indeed not so much for us but more importantly disastrous for those we serve. The legendary ice hockey player Wayne Gretzky said 'A good hockey player plays where the puck is. A great hockey player plays where the puck is going to be.' I hope that as we all seek to provide great services we will be where the action is going to be tomorrow and not just where it is today.

Empower the team

While many of us think we are a superperson, I hate to tell you the species doesn't exist. Successful leadership is about drawing out the best from all the team. However, this doesn't happen by magic. In a fast changing environment a good team last year may not necessarily be a good one this year. The game may have changed. A commitment that we have at JANET(UK) is that people in the team will be asked to do challenging things but equally we will ensure that they are equipped to complete the task. If you seek to empower the team it is essential to ensure that they are able and fit to take on such responsibility effectively. Failing to do this leads to organisational dysfunction and failure to achieve targets.

4.

3.

Strive to be trusted

Occasionally I wake up in the middle of the night and wonder whether the aggressive bottom line-driven attitudes I had with some of my customers in the international TV business brought in any more revenue than a more collegiate approach might have achieved. My conclusion is that it did not: if anything such a macho approach, although impressing peers, made less money and certainly gave me grey hair! Any sales person worth their salt has the ambition to become a 'trusted advisor' to their customer. We should all strive to be trusted and drive our activity based on honesty and integrity, even when we disagree – I'm still old fashioned enough to believe that this is an effective and pragmatic route to success.

news

Migrating a Regional Network

Operation of AbMAN, the regional network serving the north east of Scotland, has successfully transferred to JANET(UK) which now fully manages the service.

In August 2009 the board of ABMAN resolved that it wished to make the transition and 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.

To migrate the service, arrangements had to be made to continue the connections for the four Sponsored connections[1] hosted by AbMAN Ltd, which formed half the total of eight AbMAN connections. Of these, the Scottish Agricultural College has become a Primary JANET connection and the remaining institutions are now sponsored by either Aberdeen University or Robert Gordon University. The two Regional Network Entry Points connecting AbMAN to JANET continue to be housed at the University of Aberdeen and a contract for this has been successfully negotiated. New IP routing equipment was installed by JANET(UK) and a seamless migration from the old routers was concluded in July 2010.

It was also necessary to re-procure the AbMAN network infrastructure, the contracts for which expire in July 2011. JANET(UK) staff worked closely with members of the local community with the aim of preserving the existing resilient dark fibre infrastructure where possible, ensuring the maximum levels of reliability for AbMAN institutions. A contract was awarded to THUS PLC in July and the new infrastructure will be ready for service by May 2011.

Since January 2010, JANET(UK) has been represented by a number of staff at the various Technical Advisory Group meetings to ensure that the AbMAN community is kept abreast of the progress of the project. A structure has been agreed for future meetings which will establish suitable mechanisms for the continued exchange of ideas

> *Since January 2010, JANET(UK) has been represented by a number of staff at the various Technical Advisory Group meetings to ensure that the AbMAN community is kept abreast of the progress of the project.*

and information about network and wider service matters, both regional and national.

Rolly Trice
Manager, Network Planning
& Projects Group
roland.trice@ja.net

Concurrent with AbMAN's move, JANET(UK) has begun a series of projects designed to implement a more directly managed regional delivery model for JANET services that will streamline the management process and reduce costs by sharing resources and eliminating duplication of effort. Ultimately, the operation of all regional networks will be brought in-house to JANET(UK) and managed directly from there.

As well as AbMAN the company already directly manages three regional networks: EastNET (the East of England Network), TVN (Thames Valley Network) and WMRN (West Midlands Regional Network). To date, two further networks are in the process of transitioning from the JANET Partner Agreement contract.

The project for each regional network will be planned according to that network's particular circumstances and will be designed to ensure as smooth a transition as possible, ensuring there is no disruption of service for JANET users.

1. See www.ja.net/services/connections/types-of-connection.html#sponsored

news

Revised Service Level Agreement brings greater clarity

The new SLA (service level agreement) agreed between JANET(UK) and JISC gives greater clarity in two key areas of JANET's service provision: fault management and the maintenance of application services.

In both of the key areas, JANET(UK) has already routinely exceeded the old SLA for some time: however, following discussion with the JANET Stakeholder Consultative Panel it was thought that changes to the SLA definition would mean greater clarity for the JANET community.

Fault management 24x7

Coming into line with what is already current practice, the SLA now reflects the 24x7 service provided. It specifies that the JANET Service Desk is staffed from 7am-midnight on any normal weekday, with on-call cover available outside these times. (This has now been JANET(UK)'s practice for two years, though the old SLA merely stipulated Service Desk availability from 8am-5pm on weekdays.) Outside the staffed Service Desk hours, the call will be taken by a message answering service which can contact the on-call engineer. This means that any authorised representative of a JANET-connected organisation can contact a JANET engineer at any time except Christmas Day.

The JANET Service Desk also handles the initial response to queries. Another change is that the initial response time for queries is halved from four to two hours, and that in this regard the Service Desk is staffed as for fault management.

Application services

Again, greater clarity is laid down for what is already JANET(UK)'s current practice. Specific definitions have been added for the fault management and maintenance activities of each service. In the particular case of JANET Videoconferencing, the time for both resource reservation and response to queries is also halved from four hours to two.

Further changes

Service provision of the new JANET Certificate Service has been added to the SLA and two no longer used services, Usenet News and the Bandwidth Management Advisory Service, have been removed.

Staff Changes at your organisation?

We at JANET(UK) strive to keep our database of contacts up-to-date. If contact staff change at your organisation, please inform the JANET Service Desk. This will allow us to keep you abreast with service updates and enhancements, and reduce unnecessary mailings. Contact service@ja.net.

Service Level Agreement

The SLA defines the services that JANET(UK) provides to the JISC-funded community, and is negotiated between JANET(UK) and JISC acting on behalf of the funding bodies. Reviewed on an annual basis, the current version is always available to read at **www.ja.net/services/publications/policy-documents/service-level-agreements.html.**

JANET Stakeholder Consultative Panel

The Stakeholder Consultative Panel was established to enable our customers to have greater input into the technology strategies relating to the network and associated services. Further information is available at **www.ja.net/company/stakeholders.html.**

Help plan the future of JANET

JANET Research Requirements Workshop

As users and stakeholders of JANET, the chance to provide your input into the requirements consultation on the future of the JANET network has started. A document outlining the context of the requirements consultation, the process, and how you can provide your input is available at www.ja.net/six. Paper copies of this document have been sent to all JANET connected organisations.

By building on previous requirements gathering initiatives, JANET(UK) aims to ensure that it continues to provide a network that both meets user requirements and provides exceptional value to the sectors it serves. The requirements that you provide will be analysed at the end of the year and used to develop several strategies: for the future provision of JANET, and specifically for replacing the JANET backbone supply contracts in 2013; for how the regional delivery infrastructure will evolve from 2012; and for the work to ensure the international interests of JANET users are properly served by high quality network services. In parallel with this requirements gathering exercise, JANET(UK) is working with JISC to understand the future funding options for JANET.

As well as receiving views directly, JANET(UK) is holding a number of workshops with users and representative bodies over the coming months. As well as the one reported on this page, further workshops with representative bodies such as RUGIT, UCISA, HEIDS, AoC are scheduled and an event open to all Network Managers at JANET connected organisations is being held on 21st October in London.

For further information and to keep up to date with this planning work visit www.ja.net/six. To provide your views directly on requirements for the future of JANET, please send them to Jeremy Sharp, **jeremy.sharp@ja.net**, Head of Strategic Technologies at JANET(UK).

The first in a series of workshops to gather the requirements of the JANET community and help plan the next stage of the JANET backbone successfully generated much useful discussion and input that will be fed into JANET(UK)'s planning process. The workshop was held in June at Chicheley Hall in Buckinghamshire, with a broad cross-section of the UK research community.

Themes were identified ranging from the policy level down to practical suggestions for helping people to make better use of e-infrastructures, and networks in particular, to further their research agendas. Several areas were also identified for more detailed follow-up meetings and discussions.

There was considerable interest in the potential for outsourcing services such as data storage, computing and e-mail to emerging cloud providers. There is strong support for continuing with wireless connection services such as eduroam on JANET, and encouragement to increase their scope and penetration on campus and elsewhere. For the research community in particular, future connection of sensor networks will be important. New service models will change the traffic patterns on networks and better understanding of these changes will help with future service planning. The point was made that when communities begin to make use of e-Science / distributed / grid approaches, there can be a very rapid growth of network traffic generated as researchers begin to work in new ways.

Following the outcome of the workshop, JANET(UK) will co-ordinate further dialogue with specialists on the topics of network research, optical networking and photonics, wireless networking and visualisation.

Details of the workshop are available at: **www.ja.net/services/events/2010/ResearchRequirements/details.html.**

training & events

Events Calendar

FAM10
5th and 6th October 2010
The St David's Hotel and Spa,
Havannah Street, Cardiff CF10 5SD
Access management event for schools,
FE, HE and online content providers

JANET CSIRT Conference
20th October 2010
One Wimpole Street, London W1G 0AE
Bookings now being taken

SIX: Network Managers Consultation
21st October 2010
Hallam Conference Centre,
44 Hallam Street, London W1W 6JJ
**http://www.ja.net/services/events/
2010/six_networkmanagers/index.html**

JANET Strategic Briefing
23rd November 2010, The Royal Society,
6 - 9 Carlton House Terrace,
London SW1Y 5AG

**ADVANCE NOTICE
Networkshop 39**
12 - 14 April 2011 University of
Hertfordshire, de Havilland Campus
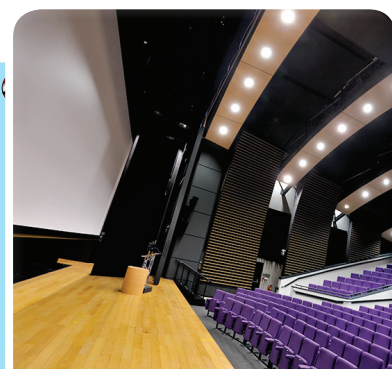
NETWORKSHOP® 39

**Call for Papers
now launched**

http://www.ja.net/services/
events/callforpapers.html

ja.net Training — Forthcoming courses 2010

OCTOBER

Managing IT Security
October 6th 2010, Newcastle

Computers, Privacy and the Law
October 7th 2010, Newcastle

**Firewalls: Planning and
Implementation**
October 13th 2010, Birmingham

IP Fundamentals
October 19th 2010, London

Basic Networking
October 26th 2010, London

Basic Router Configuration
October 27th 2010, London

Wireless LAN Fundamentals
October 28th 2010, London

NOVEMBER

Information Security Policies
November 9th 2010, Belfast

Computers, Privacy and the Law
November 10th 2010, Belfast

Introduction to DNS
November 17th 2010, Birmingham

Introduction to Videoconferencing
November 24th 2010, Edinburgh

**Technical Support for
Videoconferencing**
November 25th 2010, Edinburgh

**Implementing a Shibboleth 2
Identity & Service Provider**
November 30th - 1st December 2010,
London

DECEMBER

Introduction to JANET
December 7th 2010, Manchester

Virtualisation Fundamentals
December 9th 2010, Bristol

JANET Roaming Fundamentals
December 16th 2010, Cambridge

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 JISCmail site at: **www.jiscmail.ac.uk/lists/janet-training.html.**

community

JANET at the RSC Summer Conferences

JANET(UK) was involved in a series of highly successful summer events throughout the summer, hosted by a number of JISC Regional Support Centres around the UK. Events were held in the Eastern, London, East Midlands, North West, Yorkshire & Humber and South West regions, with the West Midlands running an online conference.

The events were a fantastic success with participant numbers approaching 1000. JANET(UK) was present at all the events, highlighting the growth in the use of JANET, its continued position as a world leading infrastructure for education and research in the UK, and the availability of JANET services.

JANET Video Services featured strongly, with demonstrations of Access Grid and the newly launched JVCS Desktop taking place. There was strong positive feedback in regard to some newer services, particularly the availability of server certificates proving

©JISC RSC East Midlands

a key benefit and tangible cost saving for the community.

JANET txt continued to generate interest following the re-procurement

and cost reduction to 4p per message in May 2010. The service is continuing to grow strongly with over 280 organisations using the service and 8 million messages sold. June proved to be a record month as the community gears up for the results season and the subsequent influx of new learners.

Whether we were exhibiting, presenting or simply involved in discussions, the events provided excellent opportunities for support and engagement as we strive to learn, adapt and develop along with the rest of the community during this period of unprecedented change.

We also look forward to our involvement with the RSC South East e-fair later this term on 28 October at Mid-Kent College. See you there.

Paul Wakefield
Customer Engagement
paul.wakefield@ja.net

> "
> *The events were a fantastic success with participant numbers approaching 1000.*

development

Optical Networking Strategy Update

JANET(UK) has updated its Optical Networking Strategy following a recent review to reflect current market and technology positions and JANET(UK)'s development plans. With its shift away from classic technology and incorporation higher capacities, the strategy positions development work in this area to reflect expected changes in usage of the JANET network over the next few years.

Technology shift

Since JANET's original strategy was drafted, the original time-division multiplexing (TDM) technology with its origins within the previous JANET backbone has been becoming increasingly expensive to operate and maintain. Meanwhile Optical Transport Networks (OTNs) have matured significantly, with circuits with capacities between 1Gbit/s to 100Gbit/s and a granularity of 1Gbit/s. In future it is therefore expected that the majority of high capacity circuits will either be framed for OTN use, or be one of the Ethernet options at 10, 40 (not yet fully standardised) or 100Gbit/s.

Capacity changes

JANET now uses 40Gbit/s circuits in the core network and JANET(UK) has undertaken successful trials at 100Gbit/s with our service partners. The new strategy will incorporate these changes to higher capacities per wavelength and focus on equipment capabilities which enable flexible and cost-effective management of the bulk network capacity provided by the optical transmission systems. The strategic element here is to understand how these developments feed into approaches to network architectures, and to assess these for relevance to JANET.

Technology candidates

There is continuing interest in transmission technologies which enable traffic to be sent along pre-determined routes through networks. These are seen

> "
> *JANET now uses 40Gbit/s circuits in the core network and JANET(UK) has undertaken successful trials at 100Gbit/s with our service partners.*

as cost-effective and fine-grained delivery mechanisms for layer 2 lightpath services, and may also be important in future networks for enabling different traffic classes or customer groups to receive appropriate engineering solutions. The two major technology candidates are MPLS (or the emerging carrier variant MPLS-TP) and carrier Ethernet in its IEEE standardised form PBB-TE. The strategy includes development work in both areas in the form of lab based and wide-area trials with partners in the JANET community.

Dynamic provisioning

A long-standing aim has been to make the lightpath service easier to manage and to speed up circuit provision. This remains in the strategy in the form of requirements on management and provisioning systems which would control the equipment to deliver services. Commercial systems providing these functions are evolving but are still largely proprietary, so the strategy also contains development work associated with provisioning and control systems which have emerged from the NREN communities in Europe and the United States. The current GÉANT programme, GN3, in Europe and networks such as Internet2 and ENnet in the US are developing or have deployed systems to enable dynamic provisioning over their infrastructures. JANET(UK) has begun lab-based work to evaluate these systems, and this is likely to lead to small-scale wide-area trials, probably involving an international element with partners from either or both of the initiatives mentioned above.

recent publications

NEWSLETTERS

JANET News 12
www.ja.net/documents/publications/
news/news-12.pdf

GUIDES

The JANET Network:
Help Plan the Future
www.ja.net/documents/development/
janet-six/janet-network-requirements.pdf

EMAIL UPDATES

INTRODUCTION

JANET Development
Update Bulletin

**To receive regular updates from
the Development Team at JANET,
sign-up at www.jiscmail.ac.uk/lists/
janet-development.html**

ja.net

The JANET Network

HELP PLAN
THE FUTURE

JANET(UK) is beginning the process of capturing the
requirements of our users to inform and guide the planning
of the next backbone. This document explains what is
entailed and how you can become involved in this process.

The UK has a world-class reputation for the quality of
both its education and research capabilities and JANET
plays a vital role in maintaining and strengthening this. It is
therefore essential that all users of JANET are provided
with the leading-edge, highly reliable network services
that will support their individual missions, whether in
learning, teaching or research.

The award-winning SuperJANET5 project resulted in the
current JANET backbone, based on dedicated optical fibres

and associated data-transmission equipment, wh
delivered world-leading advanced networking ser
education and research since 2006. This project tool
from a network infrastructure based on a mode
increases in capacity were expensive, to one where
can be increased to meet demand at significantly lo
controllable costs.

The technological foundation on which the
is built has enabled it to evolve naturally to t

www.ja.net

How to contact JANET(UK)

JANET(UK)
Lumen House
Library Avenue
Harwell Science & Innovation Campus
DIDCOT
Oxfordshire
OX11 0SG

Tel: +44(0) 1235 822 200
Fax: +44(0) 1235 822 399

JANET Service Desk

Tel: 0300 300 2212
Fax: 0300 300 2213
E-mail: service@ja.net

JANET CSIRT

Tel: 0300 300 2340
Fax: 0300 300 2341
E-mail: irt@csirt.ja.net

To be added to or removed from the
mailing list for JANET News, e-mail

janet-news@ja.net

or use the JANET(UK) contact
information above.

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).