janet

NETWORKSHOP 41

AT KEELE UNIVERSITY

9–11 APRIL 2013

CONFERENCE & EXHIBITION
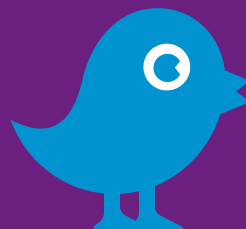GUIDE

NETWORKSHOP 41
AT KEELE UNIVERSITY

WELCOME

CONTENTS

#nws41

WELCOME

Keele University 9 – 11 April 2013

I would like to welcome you all to Networksop41 and hope you all have an enjoyable and interesting stay at Keele.

Keele University is renowned for its exciting approach to higher education, beautiful campus, strong community spirit and excellent student life. It was the first new United Kingdom University of the 20th century, established with degree giving powers in 1949 as the University College of North Staffordshire. University status, as the University of Keele, followed in 1962.

The University provides high quality teaching across a wide range of academic and vocational subjects. Most of our students study for one of more than 500 Dual Honours programmes, where you can gain an honours degree level qualification in two subjects. We also have single honours degrees in American Studies, Environment and Sustainability, Geography, Law, Mathematics, Music Technology, Politics and in Medicine and other health-related subjects.

Keele is the UK's largest integrated campus university and occupies a 617 acre estate. Its central feature, 19th century Keele Hall, has Grade II registration with English Heritage. In networking terms Keele has around 10,000 hardwired network connections and WiFi in areas where students congregate when on campus. The networks are resilient to two data centres and onto Janet via resilient connections to Net Northwest. The major network project presently underway is to install comprehensive WiFi coverage across all buildings and outdoor spaces.

My staff and I are looking forward to meeting you all on the 9 April 2013.

John White
Deputy Director (IT) Finance and IT Directorate
Keele University

NETWORKSHOP41

Keele University 9 – 11 April 2013

Foreword

Welcome to Networkshop41 at Keele University. It is a great pleasure to return to Keele since our last visit in 2004. As always, our role is to ensure that Janet is maintained as a world leading research and education network that continues to meet the ever-evolving needs of our customers. During the last twelve months we have completed the procurements for the fibre requirements and the optical equipment for the next version of the Janet backbone. Since the autumn Janet staff have been working closely with the suppliers to ensure a successful implementation of the new network by this summer.

Members of the Janet Customer Engagement team will be on hand so make sure that you take the opportunity to make contact with your regional Customer Engagement Manager at this event – they are looking forward to the opportunity to meet with you.

We are very keen to maintain the technical focus of Networkshop41, whist also including additional topics that will address your diverse interests. This year the exhibitor sessions are timetabled throughout the first two days of the event and birds of a feather sessions (BoFs) are arranged at the end of each day. The programme is very full this year with over forty presentations packed with information. With so much choice we are confident that there is something of interest to everyone.

You will have the opportunity for questions and discussion, with the parallel sessions and the BoFs in particular designed to facilitate interaction, and give you an opportunity to provide feedback. With over 300 delegates there should be plenty of opportunity for information gathering and discussion outside of the formal sessions.

WELCOME

We would like to thank all of the speakers who have contributed to the programme, particularly those who provided their material in advance, enabling the production of this guide prior to the event. In this busy world we really do appreciate your efforts.

Thank you also to all the exhibitors who attend the event as it's their attendance which helps keep costs down for you, the delegates. Please take time to visit the exhibition area during all the refreshment breaks. A special thanks is also due to Easynet for sponsoring the Exhibitor Drinks Reception on the Tuesday evening and Data Integration for sponsoring the Conference Drinks Reception on the Wednesday evening.

A delegate lounge can be found near the Exhibition Centre where you can find out more information about Janet services and get a chance to recharge your laptop and mobile phone batteries.

There are others who also deserve a vote of thanks for their efforts in organising the conference and ensuring that it runs smoothly. Richard Lloyd and the team from Keele University have been involved in the arrangements since the first briefing last summer. From the Janet side, Wendy Salmon, Julie Nicholson and Teri Smith have worked extremely hard to ensure that this year's event is a success and that you have a comfortable stay.

Networkshop Online has been created and will be supported throughout the event by Katharine Iles and the Janet Training team. A special thanks to Jeremy Sharp and the team, who have put together an interesting and varied programme. Many thanks to everyone I haven't managed to mention, who has been involved in making the event a success.

I hope you find Networkshop41 useful, interesting and enjoyable.

Shirley Wood
Head of Customer Engagement and Support
Janet

VENUE INFORMATION

VENUE INFORMATION

REGISTRATION AND INFORMATION

The Conference Registration & Information Desk will be located in the Gallery, situated between the Foyer and Exhibition Hall in Chancellor's Building. Delegates should register here on arrival for the conference. Registration for the main conference opens at 10.00am on Tuesday 9 April. The desk will be staffed as follows:

Monday 8 April	4.30pm-6.00pm
Tuesday 9 April	9.00am-7.00pm
Wednesday 10 April	8.30am-6.00pm
Thursday 11 April	8.30am-1.30pm

EARLY ARRIVALS

Delegates arriving on Monday can register for the main conference as detailed above.

BADGES

On registering you will be given a conference badge that **must be worn at all times** to gain access to conference sessions, the Exhibition, and dining areas. Failure to wear your badge may result in admission being prohibited by University personnel. **Badge identification:**

Clear	Delegates	Blue	Conference Team/Stewards
Green	Exhibitors	Red	Visitors
Yellow	Speakers		

CAR PARKING

There is on-site parking close to the areas we will be using. Parking is free of charge but permits must be displayed. A parking permit will be sent to you prior to the event, or will be available from the Conference Desk. Failure to display a permit will result in a parking ticket and fine of £50.00 being issued – so please display your permit clearly.

BICYCLE PARKING

There are many bicycle shelters located around the campus, including outside Chancellor's Building. Please note bicycles are left at the owners risk and a bike lock will be required to secure your bike.

http://www.keele-conference.com/21/directions

Keele Conferences and Janet are not responsible for loss or damage to personal property.

SHUTTLE BUS SERVICE – STOKE-ON-TRENT STATION TO CAMPUS (AND RETURN)

A shuttle bus service will operate for delegates arriving at Stoke-on-Trent Railway Station on Tuesday 9 April. Buses will run from 10.00am to 2.00pm. Please look for our conference stewards on arrival at the station and they will direct you to the buses. A return service to Stoke-on-Trent Railway Station will operate from 12.00 to 2.00pm on Thursday 11 April.

SECURITY

University Security staff are on duty 24 hours a day to help in emergencies and provide information. Should an accident, criminal act or suspicious incident occur on University premises it must be reported without delay to University Security on 888 from an internal telephone (01782 733004 external). For the police call **9-999** on an internal telephone or 999 as usual on an external telephone.

University Security and the Conference organisers should be informed immediately if the Emergency services are called.

HEALTH

There is a health centre on campus, located in the Horwood area of campus. The telephone number is 01782 753550 from a mobile or 39993 from an internal phone. They may be able to see you on site or give advice of where you can get help.

If an ambulance is required whilst you are on campus, dial 888 from any telephone to contact the 24 hour University Security. They will call an ambulance and will be able to assist the ambulance getting to the correct location on campus. Alternatively please call the ambulance direct and then call 888 to advise security that an ambulance has been called and they can help them get to the location quickly. The nearest Accident and Emergency is located at University Hospital of North Staffordshire NHS Trust City General Newcastle Road, Stoke On Trent, Staffordshire ST4 6QG (01782 715444). The nearest NHS walk in centre is Midway Medical and Walk in Centre, Morston House, the Midway Newcastle ST5 1QG (01782 663757)

First Aid and other medical assistance can be obtained by contacting any member of Keele Conferences or University security. Please report any such incidents to the Conference Information Desk in the Exhibition Centre. **Please report accidents or ill health to the Conference Information Desk, especially if this leads you to departing early from the Conference.**

EMERGENCY PROCEDURES

Please familiarise yourself with the University's emergency procedures, especially in the event of fire, at the earliest opportunity.

The procedure on hearing the fire alarm, or on discovering a fire, as shown on the Fire Action Notices, is to vacate the building by the quickest and safest route, and report to the assembly point. Residents should never use fire safety equipment to fight the fire - it is installed for use by trained members of staff who will be in attendance in the event of an alarm. Guests and staff should not re-enter the building until the Fire Service or Security team confirms that it is safe to do so.

TELEPHONES

All rooms are equipped with a free room-to-room/ direct-dial telephone, operated by a 'key com' system. In order to use your room phone externally you are requested to register, via your room phone, by providing your credit/debit card details. Further information is available from Chancellor's Building reception.

Please note there are areas on campus where mobile telephone reception is weak.

RECEPTION

University staff will be pleased to answer your queries between 8.30am – 7pm at Chancellor's Building Reception on 01782 733283 or 734095. You can contact reception by internal phone – 33283 or 34095 - from your hall of residence. Outside of these hours please contact the 24hr security team who will be pleased to help on 01782 733004 or internal 33004.

TECHNICAL COMMUNICATION

Communication facilities – including Internet access and Wireless LAN – will be available to delegates during the conference. Full details will be provided with your joining instructions prior to the event and on the website. Wireless networking will be available in all of the conference areas but not in the accommodation blocks. This will be fully integrated with eduroamUK.

PCs with Internet access will be available to all delegates in the Delegate Lounge on the ground floor of Chancellor's Building.

A username and password will be required to log-in to these facilities, in academic buildings, the exhibition, the restaurant and also in your accommodation (please note this is a wired connection); these will be issued on registration at the Conference Information Desk in the Gallery, Chancellor's Building. Data cables will also be available.

ACCOMMODATION

Lindsay Court / Holly Cross

All delegates will be accommodated in single, en-suite rooms with shower, toilet and washbasin, at Lindsay Court or Holly Cross. Towels and toiletries are provided and each room is equipped with a telephone, wired Internet connection, and tea/coffee making facilities.

Rooms will be available from 1.00pm on the day of arrival. A luggage room will be available close to reception in the Chancellor's Building for early arrivals. A choice of continental or full English breakfast will be available in the Comus Restaurant, Chancellor's Building, from 7.00-8.30am.

Should you require assistance with your accommodation at any time during your stay, contact the Reception Desk in Chancellor's Building, extension 33283 or 34095, or note the contact numbers listed at the end of the Guide, or the Information Sheet in your bedroom.

Accommodation Check-in

Rooms will be available after 1pm for check in. Registration for accommodation, and keys, will be at **Chancellor's Building Reception**.

Please inform your event organiser prior to arrival of any difficulties you may have in the unlikely event of an evacuation (e.g. hearing or walking difficulties).

Departure

Delegates must vacate their room by 9.30am on the day of departure. On departure keys are to be deposited at Chancellor's reception. A room will be available for luggage storage for delegates from 9.00am on Tuesday 9 April to lunchtime on Thursday 11 April, in the Chancellor's Building.

Please note there will be a charge of £25.00 for any lost bedrooms keys.

MEALS & REFRESHMENTS

(Please see the programme in this Guide for confirmation of times.)

Breakfast will be served in the Comus Restaurant from 7.00-8.30am.

Mid-morning and mid-afternoon refreshments will be served in the Exhibition areas.

A buffet lunch will be served each day – Tuesday, Wednesday and Thursday – in the Comus Restaurant and Atrium, Chancellor's Building. Desserts, coffee and tea after lunch will be served in the Exhibition areas on Tuesday and Wednesday.

A buffet supper will be served in the Comus Restaurant on Tuesday night, from 6.30-8.30pm.

Delegates who have to leave immediately sessions finish on Thursday may order a packed lunch to take with them. Please order this in advance of the event, or through the Conference Information Desk **no later than 1.00pm on Tuesday**.

Dinner is not included on Monday night. There are two pubs in the nearby village: Sneyd Arms, 1 The Village, Keele, Newcastle, Staffordshire ST5 5AD 01782 614533

The Dick Turpin http://www.sizzlingpubs.co.uk/thedickturpinclayton/

Further information will be available at the Chancellor's Building Reception Desk.

BARS

There is a licensed bar in the Chancellor's Building, Le Café, which will be open on the Monday and Tuesday nights until 1.00am and in Keele Hall on the Wednesday night.

DRINKS RECEPTION WITH EXHIBITORS

Delegates are invited to join Exhibitors for a Drinks Reception from 5.30-6.30pm on Tuesday 9 April. This will take place in the Exhibition areas and is kindly being sponsored by Easynet Ltd.

CONFERENCE DINNER

On the evening of Wednesday 10 April, the Conference Dinner will be served in the Ballroom, Keele Hall.

Dress is smart casual.

Keele Hall is on campus and just a few minutes walk from accommodation. However a minibus shuttle will be provided for those who do not wish to walk.

There will be a drinks reception before dinner in the Great Hall, Old Library and Salvin Room. This is kindly being sponsored by Data Integration. A cash bar will be available for the purchase of drinks during and after dinner.

We are delighted to announce that this year we have engaged the impressionist Jon Culshaw to speak after the dinner.

SMOKING

This is a 'NO SMOKING' conference. Please refrain from smoking within any of the University buildings - the University operates a no smoking policy in all buildings but there are designated smoking areas around campus.

FACILITIES ON CAMPUS

Shops and Cashpoint

There is a variety of small stores, including a Convenience Store, Newsagent, Post Office and Waterstones bookshop, located at the centre of the campus within the Students Union. There are also a number of cash dispensers in the same location.

SPORTS FACILITIES

All residential guests have complementary use of the Fitness Centre. In order to use the gym equipment an induction will be required. If you would like to use the Gym facilities during your stay, please telephone the Sports Centre Reception to arrange your induction. Other facilities including squash and tennis courts are available at a charge. To make use of the facilities please take your bedroom key and present it at the Sports Centre Reception.

http://www.keele-conference.com/44/sports-centre - for more details

External / Internal extension: 01782 733368 / 33368

Please note, there is no swimming pool on campus.

USEFUL TELEPHONE NUMBERS

Networkshop41 Conference Office (voicemail)
01782 734036

University Security Services
01782 733004

Security Services/Emergency services from
888 an internal University telephone

Chancellor's Building Reception Desk
01782 733283 or 734095 / internal 33283 /34095

LOCAL INFORMATION

Travel

Links to the University's website for further information on the locations we will be using can be found on the Networkshop website:

Taxis	ABC Supreme Taxi	01782 632222
	Roseville Taxis	01782 613245
Buses	local services	08712 002233
	Service 25 Keele – Hanley via Stoke-on-Trent Station	
	Service 85 Keele – Crewe Station	
	National Rail Enquiries	08457 484950
	National Express	08717 818178
Post Codes for Satellite Navigation	Stoke-on-Trent Station - ST4 2AA Crewe Station - CW2 6HR	
Tourist Information:	www.enjoystaffordshire.com	

PROGRAMME OF EVENTS

09.30 – 12.00	eduroam Forum **Room:** CBA1.099/100
11.45 – 12.15	Introduction to Networkshop **Room:** CBA1.098
12.00 – 12.30	Exhibitors Lunch – Comus Restaurant and Atrium
12.30 – 1.30	Delegates Lunch – Comus Restaurant and Atrium with desserts and tea/coffee in the exhibition areas

Plenary Session 1

Room: Westminster Theatre
Chair: Shirley Wood, Janet

1.45 – 2.00	Welcome *Nick Foskett, Keele University*
2.00 – 2.35	Janet Update *Tim Kidd, Janet* *Jeremy Sharp, Janet*
2.35 – 2.45	Janet – A demonstration of value *Tim Marshall, Janet*
2.45 – 3.30	LOLA – LOw LAtency Audio Visual Streaming System *Claudio Allocchio, GARR* *Gill Davies, Edinburgh Napier University*
3.30 – 4.15	Exhibition and Refreshments - Exhibition area

4.15 – 5.30   Parallel Sessions – See table

Session 1a - Legal & Regulatory	Session 1b - Video & Streaming	Session 1c - Support Mobile & Remote Users	Session 1d - Exhibitor Session	Session 1e - Exhibitor Session
Room: CBA0.061 **Chair:** Shirley Wood, Janet	**Room:** CBA1.103 **Chair:** Roger Bolam, Janet	**Room:** Westminster Theatre **Chair:** Mark O'Leary, Janet	**Room:** CBA1.098	**Room:** CBA1.100
4.15 – 4.50 Enforcing copyrights and other laws online *Andrew Cormack, Janet* **4.50 – 5.30** Regulation and DNS *Tania Baumann, Nominet*	**4.15 – 4.45** Janet Video Futures Project *Tim Boundy, Janet* **4.45 – 5.05** The potential for the Janet Streaming Video Servers *Calum Brookes, NaSTA. James Morris, Ravensbourne* **5.05 – 5.30** Dancing with the Net: videoconferencing as a means to creative collaboration in HE across the Atlantic Divide *Pauline Brooks, Liverpool John Moores University*	**4.15 – 4.45** Bring your own device *Mike Richardson, University of Manchester* **4.45 – 5.05** Outcome of the Janet 4G RFI *David Richardson, Janet* **5.05 – 5.30** 4G Surfnet *Maurice van den Akker, Surfnet*	**4.15 – 4.50** Addressing layer 3, virtual mobility and SDN in the modern Data Centre *Alex Nichol, Arista Networks* **4.50 – 5.30** Troubleshooting Storage Area Networks for Virtualisation Deployments *Mike Baker, IP Performance Kevin Walker, Xangati Inc*	**4.15 – 4.50** Distributed Networks Need Distributed Tools: Building Resilient Networks with Remote Infrastructure Management *Robert Waldie, Opengear* **4.50 – 5.30** Building an effective MDM strategy for Education *Alistair Mutch, MobileIron*

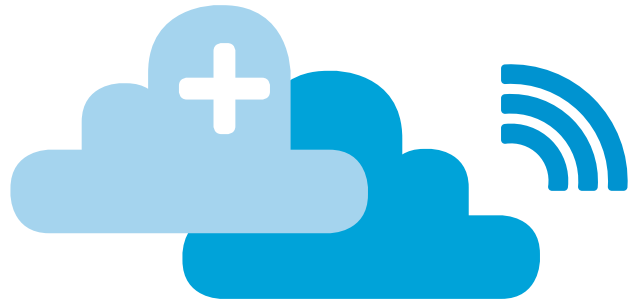|	
5.30 – 6.30	Exhibitor Drinks Reception – Exhibition area Sponsored by Easynet
5.45 – 6.45	**Birds of a Feather Sessions**
	BOF Session 1a - Security **Room:** CBA0.061 **Chair:** James Davis, Janet
	BOF Session 1b – Openflow **Room:** CBA1.103 **Chair:** Martin Dunmore, Janet
6.30 – 8.30	Delegate Evening Meal – Comus Restaurant and Atrium

7.00 – 8.30	Breakfast – Comus Restaurant and Atrium

Plenary Session 2

Room: Westminster Theatre
Chair: Roland Trice, Janet

9.00 – 9.30	Janet6 Project
	Jeremy Sharp, Janet
	Rob Evans, Janet
	Neil Shewry, Janet
9.30 – 10.00	Janet6: a new UK-wide network infrastructure
	Mark Corney, SSE Telecoms
10.00 – 10.30	Janet6 equipment – Ciena
	Simon Allder, Ciena
10.30 – 11.15	Exhibition and Refreshments – Exhibition area

11.15 – 12.30   Parallel Sessions – See table

Session 2a - Research	Session 2b - Security	Session 2c - Infrastructure Deployments	Session 2d - Exhibitor Session	Session 2e - Exhibitor Session
Room: CBA1.1.03 **Chair:** Jeremy Sharp, Janet	**Room:** Westminster Theatre **Chair:** James Davis, Janet	**Room:** CBA0.061 **Chair:** Frances Neilson, Janet	**Room:** CBA1.098	**Room:** CBA1.100
11.15 – 11.40 How to manage the network for a large research campus (policy based routing) *Mark Leese, STFC*	11.15 – 11.40 Android *Nick Walker, MWR Info Security*	11.15 – 11.40 Deploying Major Infrastructure at Keele *John White, Keele University*	11.15 – 11.50 Mitigating anomalous behaviour with LogRhythm *Andy Aplin, Accumuli Security Amardeep Sachdev, LogRhythm*	11.15 – 11.50 Imtech Smarter Campus Solutions *Rob Evans, Imtech ICT Ltd*
11.40 – 12.05 High throughput UDP based data transmission for Bioinformatics *Jonathon Barker, European Bioinformatics Institute*	11.40 – 12.05 VoIP Security *Trefor Davies, ITSPA*	11.40 – 12.05 Constraints of provisioning networking and other computing facilities within challenging environments *Chris Rowland, Pirbright Institute. Fiona Wycherley, Pirbright Institute*	11.55 – 12.30 DNS/DHCP and IP Address Management – Time to get serious *Paul Roberts, Calleva Networks, Scott Breadmore, EfficientIP*	11.55 – 12.30 Delivering more than just a network connection: Introducing the Digital Media Platform *Simon Lockhart, StudentCom*
12.05 – 12.30 e-infrastructure *David Salmon, Janet*		12.05 – 12.30 3 years, 3 buildings, 3 different solutions *Paul Brennan, Coventry University*		

12.00 – 12.30	Exhibitors Lunch in Comus Restaurant and Atrium
12.30 – 2.00	Delegates Lunch in Comus Restaurant and Atrium followed by desserts and tea/coffee in the exhibition area

Plenary Session 3

Room: Westminster Theatre

Chair: Andrew Cormack, Janet

2.00 – 2.45	Contested hyperspace *Simon Shiu, HP Labs*
2.45 – 3.30	The future direction of network regulation *Ian Walden, Queen Mary University of London*
3.30 – 4.15	Exhibition and Refreshments – Exhibition area

4.15 – 5.30 **Parallel Sessions – See table**

Session 3a - Federated Identity Management **Room:** CBA0.061 **Chair:** Henry Hughes, Janet	Session 3b - Unified Communications **Room:** Westminster Theatre **Chair:** Mark O'Leary, Janet	Session 3c - International Presence **Room:** CBA1.103 **Chair:** Shirley Wood, Janet	Session 3d - Exhibitor Session **Room:** CBA1.098	Session 3e - Exhibitor Session **Room:** CBA1.100
4.15 – 4.45 Moonshot *John Chapman, Janet* **4.45 – 5.05** Moonshot Case Study – HPC Midlands *Martin Hamilton, Loughborough University* **5.05 – 5.30** Global Federated Infrastructure *Ann Harding, Switch*	**4.15 – 4.45** Janet Telephony *Roger Bolam, Janet* **4.45 – 5.05** LYNC, OCS and federation – Microsoft Lync telephony *Marilyn Moffat, Open University* **5.05 – 5.30** Integrating UC and network management tools *Gary Parker, Loughborough University*	**4.15 – 4.45** Current Status on International networking – how it's forming and progressing *Josh Howlett, Janet* **4.45 – 5.05** The challenges of delivering IT infrastructure and services for a new International Campus *Frank Wadmore, University of Central Lancashire* **5.05 – 5.30** International Networking *Chris Nottage, University of Nottingham*	**4.15 – 4.50** High Density Wireless - making the most of the available bandwidth to provide a top quality service to students *Henry Batten, Meru Networks* **4.55 – 5.30** Internet Traffic Management in Modern Campus Networks *Eias Daka, ipoche GmbH*	**4.15 – 4.50** BYOD – The Big Bang *Andrew Brimson, Khipu Networks* **4.55 – 5.30** Cabling – At the heart of your Network *Nick Andrews, Molex Premise Networks*

5.45 – 6.45   Birds of a Feather Sessions

BOF Session 2a – Janet Certificate Service Feedback
on proposed changes and new features
Room: CBA0.061
Chair: Simon Cooper, Janet

BOF Session 2b - DNSSEC
Room: CBA1.103
Chair: Chris Thompson, Cambridge University

BOF Session 2c – Broadcast Contributions
Room: CBA1.100
Chair: Tim Boundy, Janet

Conference Dinner – Keele Hall

7.15pm   Drinks Reception - Sponsored by Data Integration

8.00pm   Move to Banquet Room for dinner

8.15pm   Dinner is served

9.45pm   Coffee, cheese and port is served

10.00pm   Tim Marshall, CEO Janet
After dinner speaker – Jon Culshaw

11.00pm   First shuttle bus departs to accommodation

THURSDAY 11 APRIL

7.00 – 8.30	Breakfast – Comus Restaurant and Atrium
9.00 – 10.30	Parallel Sessions – See table

Session 4a - Lightning Talks **Room:** CBA1.099/1.100 **Chair:** Roland Trice, Janet	Session 4b - Campus Networking **Room:** Westminster Theatre **Chair:** Frances Neilson, Janet	Session 4c - Challenges **Room:** CBA0.061 **Chair:** Paul Bevan, Janet
9.00 – 9.15 Capacity Planning Tool *Ramesh Baskeran, Janet* 9.15 – 9.25 Netflow *James Davis, Janet*	9.00 – 9.30 Changing the face of Data Centre provision *Joe Ashley, Loughborough University* *Mark Newall, Loughborough University* 9.30 – 10.00 Refreshing your entire network *Matt Cook, Loughborough University* 10.00 – 10.30 NAC from Scratch: Supporting Corporate and Research *Peter Wood, Lancaster University*	9.00 – 9.30 The changing role of the network manager *Martin King, Ealing, Hammersmith and West London College* 9.30 – 10.00 Improve the Student Experience of Internet Services in Student Accommodation *Peter North, Coventry University* 10.00 – 10.30 Getting the Maximum Benefit from Free and Open Source Software *Rowan Wilson, Osswatch*

| 10.30 – 11.15 | Exhibition, Refreshment and Awards – Exhibition area |

Plenary Session 4

Room: Westminster Theatre

Chair: Shirley Wood, Janet

11.15 – 12.00	Genomics and molecular biology; a data intensive science for the 21st Century
	Ewan Birney, European Bioinformatics Institute
12.00 – 12.30	Summing up and Close
	Tim Marshall, Janet
12.30 – 1.30	Lunch followed by tea/coffee in Comus Restaurant

PRESENTATION & SPEAKERS

PRESENTATION & SPEAKERS

MAURICE VAN DEN AKKER, SURFnet

Biography

Maurice van den Akker is as team manager mobile and product manager eduroam responsible for the strategy, business model and deployment of wireless network services of SURFnet. He is also active as business developer mobile connectivity within the GN3 project. He joined SURFnet in 2002, after being a consultant for data networks in the telecom industry for several years. Maurice holds master degrees in MBA, Computer Science and Technology Management.

Abstract

Seamlessly integrated 4G and eduroam

Bring your own device and mobile communications are becoming extremely important within higher education and research domains. Trusted, open, hi-speed, affordable and reliable wireless access to the Internet is therefore hugely important. In this talk, the question is addressed how institutes and NRENs together can encourage the market to provide them with excellent and seamless integrated access to the campus network using 4G technology. Experiences from a live campus pilot in the Netherlands are shared.

SIMON ALLDER, CIENA

Biography

Simon Allder is a Senior Sales Systems Engineer at Ciena and joined the company in 2007. He has an ISP / Service Provider background and has for the last 2 years been focused on the R&E, Government and Enterprise market sectors. Simon's area of expertise is in the designing and planning of optical transmission networks with DWDM, OTN, Ethernet and SDH technologies. Prior to Ciena Simon has worked at Level3 Communications, Ericsson Transport Networks and as a Researcher for the British Antarctic Survey.

Abstract

Ciena – The new optical equipment in the Janet6 backbone

This talk is part of a broader presentation where Janet, Ciena and SSE-T will take you through what it takes to build a large infrastructure like Janet6. It will talk about what Ciena equipment is in the Janet6 optical backbone, how this works, the services carried by the network, technology highlights and some of the challenges in building such an infrastructure.

CLAUDIO ALLOCCHIO, GARR

Biography

Claudio Allocchio studied astrophysics and particle physics, but also music (piano). In 1985 he started his computer networking activities at CERN and then returned to Trieste (1988). Among the founders of GARR NREN, he managed the COSINE mail gateway services (early 90s) and the Italian Naming Authority (".it" regulator). Since 1991, he is a member of the application area directorate at IETF. He is the GARR senior technical director for advanced applications and security areas.

Abstract

LOLA - LOw LAtency Audio Visual Streaming System

LOLA is an advanced videoconferencing system developed by Conservatorio G. Tartini in Trieste (Italy) in collaboration with GARR, the Italian Research and Education Network: the system has a very low audio/video embedded latency (a few milliseconds) which allows real time human interaction across advanced networks like GEANT, Internet and the european NRENs: furthermore LOLA provides a very high quality multichannel audio service, and no video compression, which transport the presence of the remote participants in a very effective way, making it seem 'a natural local presence' to users. LOLA thus allows for real time musical performances where musicians are thousands of miles away from each other, but also any other performing art can benefit from the system, and also any activity requiring very tight interaction (like remote surgery for example) can use the system. There is still work in progress in the application, and we will also present the roadmap, and further possible collaborations with it.

#nws41

PRESENTATION & SPEAKERS

JOE ASHLEY, LOUGHBOROUGH UNIVERSITY

Biography

Joe is the Server and Storage Infrastructure Team Manager Loughborough University.

Leading a team of specialist IT professionals and working in partnership with Logicalis, Joe project managed the i2012 hybrid cloud solution providing data centre capacity for all teaching and research areas of the University. Working with his team Joe ensured the project met the needs of academic and technical staff to eliminate the need for expensive departmental solutions and by the end of its first year over 350 servers and services, from 16 departments, had migrated.

In addition to providing two geographically distinct 'Pods' for compute, network and storage as one logical data centre, the i2012 hybrid cloud solution provides the ability to migrate servers to partner data centres in Slough.

Loughborough University is a 437 acre single-site campus, has a world-wide reputation for excellence in teaching and research, strong links with industry, and unrivalled sporting achievement. A research-intensive university, Loughborough is world-renowned for the high calibre of research produced - three departments were rated number one in the country. Loughborough has also been awarded six Queen's Anniversary Prizes. Joe can be contacted via email at j.ashley@lboro.ac.uk

Abstract

Changing the face of Data Centre provision. Refreshing your entire network

Working with a new strategic partner (Logicalis) to deliver a hybrid cloud data centre intended to replace departmental and central IT server silos offered significant challenges of both a technical and people perspective. This presentation will cover the final design and how the people and technical challenges were overcome resulting in the migration of over 350 servers and services from 16 departments onto the new platform.

JONATHAN BARKER, EBI

Biography

Jonathan Barker graduated from UCL with a degree and PhD in pure mathematics, then spent several years working as a research assistant in cross-disciplinary fields including image processing and bioinformatics. In 1999 he was awarded a training fellowship in bioinformatics by the MRC, joining Janet Thornton's research group at UCL and later the EBI. In 2005 he left research and joined the systems group at EBI. Among various roles, Jonathan leads the networking team.

Abstract

High throughput UDP based data transmission for Bioinformatics

The talk will outline some of the technical challenges faced by EBI as a consequence of the current "explosion" in biological data volumes. In particular, the challenge of reliably transferring huge quantities of data to and from major partners and smaller labs. We will consider one family of solutions: UDP-based data transfer protocols, and look at the technical implementations in use at EBI today.

RAMESH BASKARAN, JANET

Biography

Ramesh Baskaran is a Network Management Systems Support Programmer. Ramesh first joined Janet in 2011 as a Measurement and Monitoring Developer in the Strategic Technologies division to develop an SNMP monitoring tool for the Network Planning group. Following the success of the project, Ramesh moved to Network Operations group as NMS support programmer to further develop the tool.

Abstract

Capacity Planning Tool

The Capacity Planning Tool (CPT) is an SNMP based network monitoring tool, it's mainly used by the Capacity Planning team for the collection of traffic statistics in order to build traffic models and long range forecasts for Core and Regional circuits. The CPT is built by using a variety of open source tools. We are also looking to incorporate flow-monitoring data in the future.

TANIA BAUMANN, NOMINET

Biography

Tania Baumann is Head of Secretariat at Nominet, where she is responsible for managing the .uk policy process, including bringing .uk policy recommendations to the Nominet Board and stakeholder engagement. Prior to her appointment to Nominet in December 2010, she was the Acting Director of the International Chamber of Commerce (UK) leading its policy and advocacy activities.

Abstract

Regulation and DNS

In the past, the domain name system has played a somewhat invisible role in enabling users to reach the information that they wanted to on the Internet. However as concerns of regulators have grown amidst issues of cyber-security and cyber-crime, protecting vulnerable and young people from online harms, data privacy, and freedom of expression amongst others, the DNS has come under increasing scrutiny as a 'soft target' for regulation. This can place new expectations and risks on those involved in the supply chain from the registry through to the registrant. Some of these can be managed contractually and through self-regulation, whilst others may be imposed. This talk will consider some recent developments in regulation and how they might affect service providers in the DNS chain.

EWAN BIRNEY, EBI

Biography

I originally trained in biochemistry but moved quickly into bioinformatics, publishing my first set of programs (Pairwise and Searchwise) as an undergraduate at Balliol College, Oxford. I benefitted greatly from spending time in Adrian Krainer's Lab at Cold Spring Harbor Laboratory, Toby Gibson at EMBL Heidelberg and Iain Campbell's lab at Oxford. I did my PhD with Richard Durbin at the Wellcome Trust Sanger Institute and St John's College Cambridge, and have collaborated with him since. In 2000 I joined EMBL-EBI as a Team Leader, became a Senior Scientist in EMBL in 2003 and was appointed Associate Director in 2012. I was involved in the Human genome project (both Draft and Finished) 1999-2003, the Mouse genome project, and many others. I lead the analysis of ENCODE for both the 1% pilot (published in 2007) and the scale up (published in 2012). I contributed to the Pfam database, and co-founded both the Ensembl and Reactome databases, both of which have moved to new direct leadership. Through my Associate Directorship of the EBI I continue to be involved in these projects along with many others. I was involved in the creation of a number of widely used bioinformatics tools, either directly (Genewise, 2000), or in collaboration with students and postdocs, eg Exonerate (with Guy Slater), Enredo (Javier Herrero), Pecan (Benedict Paten), Velvet (Daniel Zerbino) and CRAM (Markus Hsi-yang Fritz, Rasko Lenionen and Vadim Zalunin). In 2003 I was awarded the Francis Crick Lecture In 2012 I was also elected fellow of the European Molecular Biology Organisation (EMBO).

Abstract

Genomics and molecular biology; a data intensive science for the 21st Century

Molecular biology has transitioned from being a detailed experimental science in the 1980s and 1990s to being a data intensive science in the 21st Century. Molecular biology techniques, in particular DNA sequencing, produce large amounts of heterogeneous data. This data, when analysed appropriately,

can lead to remarkable insights into human disease processes, agricultural science and ecology. In this talk I will outline some of the technology drivers in this science and describe the need for a robust, scaleable information infrastructure, spanning both technical and scientific domains.

ROGER BOLAM, JANET

Biography

Roger has worked within the strategic technologies team at Janet for over thirteen years. During this time he has managed the development of a wide ranging real-time technology portfolio including Internet Television, Videoconferencing and Telephony. At present Roger is managing the development of a telephony purchasing system to enable Janet customers to make significant cost savings by using Janet to deliver telephony traffic.

Abstract

Janet Telephony

To meet the needs of customers in a challenging financial climate, Janet is seeking to develop new products and services that help customers achieve savings. Janet is in the early stages of developing an innovative purchasing system, which will enable Janet customers to purchase technically sound, Janet connected telephony solutions from pre-approved telephony providers. In this session Roger will outline how the purchasing system can be used and describe what Janet has done to ensure any telephony services purchased via the system meets the varied needs of Janet customers.

TIM BOUNDY, JANET

Biography

Tim received an Honours Degree in Physics and Space Science from Leicester University in 2000 and began to use technology to communicate an enthusiasm for education.

Tim joined Janet in September 2006 as Schools Content Coordinator. Building on his previous role as Education Officer for eLearning at the National Space Centre. In 2010, after joining the Janet Strategic Technologies Division, Tim took the role of Application Development Team Manager. He now manages a variety of projects, with an emphasis on Applications development and Video Service development.

Abstract

Janet Video Futures Project

The Janet Video Futures Project aims to develop the next generation of the Janet Videoconferencing Service. Tim will be describing the main concepts and progress of the project, including how Janet aims to offer better interoperation with proprietary VC service and introduce a new user interface.
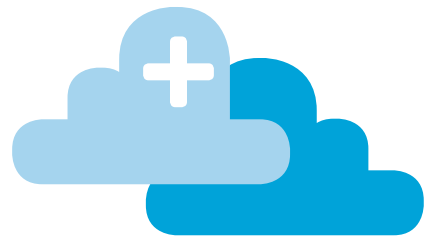
PAUL BRENNAN, COVENTRY UNIVERSITY

Biography

Paul is currently the Head of Network Services at Coventry University and manages a team of 9 covering all aspect of Voice and Data connectivity. Having started his IT career looking after a small Novell network for a sales and distribution company he went on to form his own company in 1996 providing IT Maintenance and Service to SMEs in Greater and Central London. After selling the business in 2000 he went on to work for RMC (Ready Mixed Concrete), firstly providing IT Support and solutions for their Building Products division, then for their Waste division before finally moving to Rugby to become Data Centre Manager. In 2005 Paul moved to Capita IT Solutions as an Operations Manager providing troubleshooting for two projects: a local council in the Midlands and outsourcing an internal helpdesk to Mumbai. At the start of 2007 Paul started working for Coventry University responsible for the Network. He has worked on an entire network replacement, installation of ubiquitous wireless service and security and service improvements throughout. Paul is CCSP certified as well as holding a number of Cisco Specialist Qualifications.

Abstract

3 years, 3 buildings, 3 different solutions

We will share our experiences of working on our 3 newest buildings (London Campus, The HUB and The Engineering and Computing Building) which have been delivered over the last 3 years. All of which have had different challenges, different requirements and of course 3 years of increasing complexity and ability of IP connected devices; from installing Coaxial CCTV with IP DVRs to connecting full IPCCTV; from connecting Network Connected Door controllers to connecting connectionless door controller updated by rumour; from delivering our remote campus connected via 1gbs VPN link to delivering our newest building at 40gbs fibre link. We will also share our experiences of working as a contractor during build stages, to working with contractors during the commissioning stages and how important it is to ensure IT and Estates work closely together.

CALUM BROOKES, NaSTA

Biography

Calum is the Technical Officer of the National Student Television Association's National Executive Committee. Currently a Forensic Chemistry student of the University of Glasgow, Calum is also a member of Glasgow University Student Television, the oldest Student Television station in the world, as well as being an honorary life member of York Student Television (University of York), and SonarTV (Southampton Solent University). His work with NaSTA involves the promotion of technical development within the member stations of NaSTA as well as the overall promotion of the enjoyment of student television, both production and viewership, throughout the UK.

Abstract

Janet's video streaming support of UK Student Television Stations

NaSTA and Janet formed a partnership in 2012 to offer video streaming services to help make live broadcasting accessible to all our stations. This showreel and Q&A session aims to demonstrate just how we've utilised the potential of the video streaming servers to get more and more stations collaborating and broadcasting live, some for the very first time.

PRESENTATION & SPEAKERS

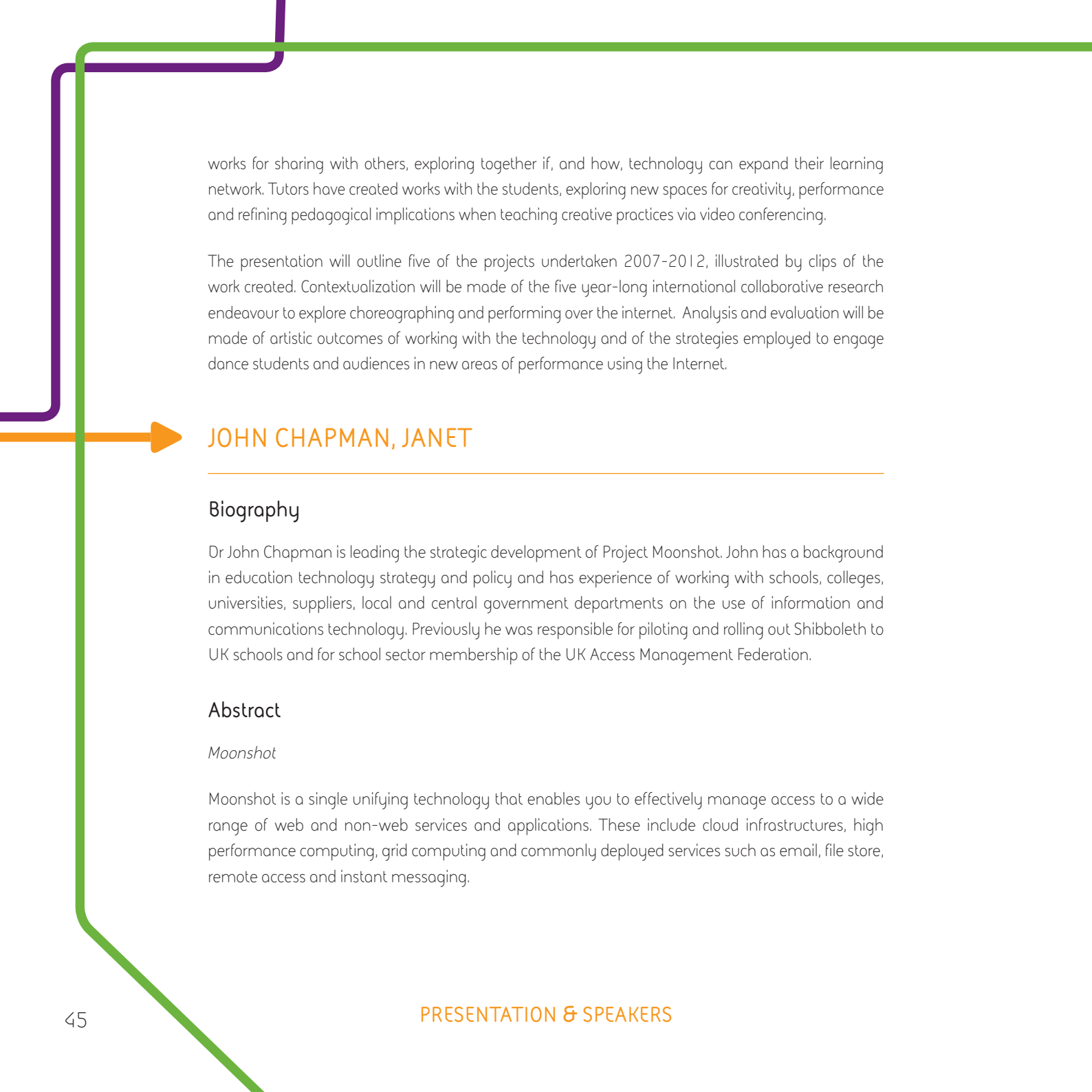# PAULINE BROOKS, LIVERPOOL JOHN MOORES UNIVERSITY

Biography

Pauline Brooks is a Senior Lecturer in Dance at Liverpool John Moores University. She is involved in creative research which has been presented at conferences on Dance, Technology and Pedagogy in the UK, USA and Malaysia. Her research explores how video conferencing can bring students together from across the world to create new work for the theatre and the virtual performance arena. Her research in this area has resulted in a 2009 LJMU Curriculum Innovations Award. In 2004 she was made a LJMU Teaching Fellow in recognition to her contributions to teaching and learning at the university. Previous to LJMU, she performed with Nexus Dance Theatre (Scotland), Springs Dance Co. (England), Ann Vachon/Dance Conduit and Sybil Dance Co. (USA) She has choreographed and taught extensively in the UK and overseas, including posts at Temple and Clarion Universities in America, as well as with Lectureships at Aberdeen and Edinburgh Universities.

Abstract

Dancing with the Net: videoconferencing as a means to creative collaboration in HE

Phillypool has been an international collaborative research project in dance between two universities -- one situated in Liverpool, UK the other in Philadelphia, USA.

To become the leaders of tomorrow, students need to be introduced to innovative learning and teaching methods today, so that they will be inspired to use and develop such innovations in their working practice for the future. The project has enabled collaboration between tutors/researchers and student performer/choreographers. It has enabled students to work with peers from 3000 miles away by communicating via web cam, Adobe Connect, Skype and email. Dancers have shared time and, together with the technology, created a new performance environment where they became one company united through the virtual 'shared space' of the cone-of-capture. Students have worked together to create a short dance

works for sharing with others, exploring together if, and how, technology can expand their learning network. Tutors have created works with the students, exploring new spaces for creativity, performance and refining pedagogical implications when teaching creative practices via video conferencing.

The presentation will outline five of the projects undertaken 2007-2012, illustrated by clips of the work created. Contextualization will be made of the five year-long international collaborative research endeavour to explore choreographing and performing over the internet. Analysis and evaluation will be made of artistic outcomes of working with the technology and of the strategies employed to engage dance students and audiences in new areas of performance using the Internet.

JOHN CHAPMAN, JANET

Biography

Dr John Chapman is leading the strategic development of Project Moonshot. John has a background in education technology strategy and policy and has experience of working with schools, colleges, universities, suppliers, local and central government departments on the use of information and communications technology. Previously he was responsible for piloting and rolling out Shibboleth to UK schools and for school sector membership of the UK Access Management Federation.

Abstract

Moonshot

Moonshot is a single unifying technology that enables you to effectively manage access to a wide range of web and non-web services and applications. These include cloud infrastructures, high performance computing, grid computing and commonly deployed services such as email, file store, remote access and instant messaging.

In this session Dr John Chapman will provide an overview of the technology created by Janet and developed further in collaboration with partners in GÉANT and industry to 'Federate Anything & Everything, Easily'. John will also describe the goals of the recently launched Janet pilot, which over the next 18 months is investigating a new trust infrastructure – Trust Router – as well as testing the operational infrastructure, support and training requirements for a large scale deployment across the Janet community.

## ARTHUR CLUNE, UNIVERSITY OF YORK

Biography

Arthur Clune is the Information Security Officer for the University of York.

Abstract

Security: 10 years of change

Looking back of the last 12 (and a bit!) years of InfoSec in the sector, there's been a vast amount of change. From a state where many sites didn't have border firewalls to one where we're taking about certification, standards and regulation. But are we actually more secure relative to the changed threat level? What's changed for the better and what's the same? Where are our weaknesses still?

The talk will provide an overview of the security landscape in 2013 by contrasting it with the landscape over the past decade+.
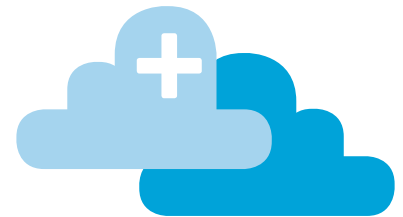
MATTHEW COOK, LOUGHBOROUGH UNIVERSITY

Biography

Matthew's the Head of Networks, Infrastructure and Telephony at Loughborough University and chair of UCISA Networking Group. He has been a member of staff at the University since 1999, and during that time has worked in numerous areas of IT management and development including many collaborations with other academic institutions, Janet, Jisc and UCISA. Leading four teams of IT professionals, Matthew works with 14 colleagues who are a mixture of direct and in-direct reports in his section.

Loughborough is a large campus based, research-intensive University with a significant network at over 26,000 connections across a 437-acre site. The University has a dual resilient and diverse 10Gb connection to the Janet network and a 40Gb backbone, providing the essential connectivity for: teaching, learning and research.

Currently Matthew is also the Vice-Chair of the UCISA Networking Group, Head of ESISS and a Janet Contracted Trainer. He has spoken at many international conferences on various information technology topics, these: presentations, papers, research and lectures are available at http://escarpment.net/.

Abstract

Refreshing your entire network

In the autumn of 2010, Loughborough University embarked on a programme to fresh four key areas of infrastructure: Data Centre, Networking, Unified Communications and VDI (Virtual Desktop Infrastructure). This is a walk through the challenges of refreshing a large networking infrastructure across a 437 acre campus; with over 1,000 devices to replace and change from the regular yearly refresh cycle, it was an interesting period.

The session will discuss the engagement with stakeholders within the University, physical infrastructure challenges, managing vendors and commercial partners. January 2013 marked the conclusion of the upgrade to the new infrastructure, leaving the team to concentrate on projects which were displaced during the intensive upgrade programme. If you are considering a full refresh of your infrastructure; there will hopefully be some learning points to take away and a opportunity to ask questions at the end of the session.

ANDREW CORMACK, JANET

Biography

Andrew Cormack is Chief Regulatory Adviser at Janet, responsible for understanding the regulatory and policy issues of Janet's networked services. He joined the company in 1999 to run JANET-CERT and tries to remember something about technology while studying the law.

Abstract

Enforcing copyrights & other laws online

The legal duties placed on networks, websites and other intermediaries to deal with unlawful content have to balance the interests of victims, operators and legitimate users. With changes being proposed to the duties in the areas of copyright and defamation, this talk will consider how these may affect the services provided by Janet and its customers.

MARK CORNEY, SSE TELECOMS

Biography

Mark joined SSE in 2001. As a qualified engineer with broad experience in designing, building and operating networks, Mark has worked on some high profile network builds and construction programmes across the USA, Europe and Asia. His experience has developed a multi-disciplined skill-set that has enabled him to gain management roles in companies such as Fujitsu, Abovenet and SSE Telecoms. Having run service delivery, operations and sales for SSE Telecoms Mark is currently the Programme Director for major projects within the business, ensuring all large-scale projects are delivered successfully.

Abstract

Janet6: a new UK-wide network infrastructure

Mark Corney, Programme Director from SSE Telecoms gives an insight into the challenges of building a UK-wide fibre network infrastructure. His presentation will cover the key steps from sales, design, and delivery into operational functions. Allowing you to gain an insight into how a power utility runs 'networks' to become a respected telecommunications provider within the UK.

GILL DAVIES, EDINBURGH NAPIER UNIVERSITY

Biography

Gill Davies is studying part-time for an MRes degree at Edinburgh Napier University in Distributed Music Practice using LOLA technology. She also runs her own production company, GDP Ltd, making radio programmes, short films and web content. Previously, she worked in production for the BBC and was Digital Producer for the BBC Scottish Symphony Orchestra.

Abstract

LOLA – LOw LAtency Audio Visual Streaming System

Gill Davies will talk about the distributed music project using LOLA technology run by Edinburgh Napier University and the Royal College of Music.

TREFOR DAVIES, ITSPA

Biography

Trefor Davies is CTO of business ISP Timico. He is a council member of both ITSPA and ISPA, is on the Technology Reference Panel of the Information Commissioners Office and the Board of LONAP – the London Access Point Internet Exchange. His blog, trefor.net is widely read in the communications industry in the UK.

Trefor is a frequent commenter in the national media including The BBC, Telegraph and Guardian and he has appeared on BBC radio on numerous occasions including The Today Programme on Radio 4 and 5 Live Breakfast with Nicky Campbell.

Abstract

VoIP Security

This talk will cover the security and fraud issues surrounding the use of VoIP services and discuss best practices that minimise their effect.

JAMES DAVIS, JANET

Biography

James Davis joined Janet, the UK's research and education network, in 2006 and is now a senior member of the CSIRT team. Janet CSIRT is responsible for coordinating the response to security alerts across the Janet.

With seven years' experience in dealing with compromised servers and malware outbreaks, to denial-of-service attacks and data exfiltration, James has been asked to speak at a number of events including BSides London, FIRST (first.org) and several Janet conferences.

Abstract

Netflow

Taking inspiration from xkcd #195, this talk will present a visualization of network traffic mapped onto a representation of Janet address space as a Hilbert curve. The usefulness of this is disputed, but the results make for some interesting slides.

ROB EVANS, JANET

Biography

I have been the lead engineer within Janet on the architecture and procurement of Janet6, including the fibre, the transmission equipment, and the IP routing layer that will sit on top of it. Previously within the Network Operations division, I still sit in the Network Operations Centre, but work within the Strategic Technologies Division and try to understand the relevance of technical advances and how they may be (and especially if they should be) brought into operation.

I also participate in the IETF, am a co-chair of the Routing Working Group in RIPE and I'm on the programme committee for the UK Network Operators' Forum (UKNOF).I haven't given up on the IPv6 crusade either.

Abstract

Janet6 Project

Janet6 represents the largest project Janet has undertaken in its 28-year history, and after signing fibre and equipment contracts in the Summer of 2012 work to build and commission the new network will be approaching completion by the time of Networkshop41. In this session, Jeremy Sharp will begin by giving an overview of the Janet6 programme of work, why we needed a new network and how Janet went about gathering the requirements for that network. Rob Evans will describe how those requirements were translated through to a network design during the process of competitive dialogue with potential suppliers. Mark Corney of SSET will then relate how that design led to the construction of a national fibre network. Simon Allder of Ciena will describe how Janet's requirements and specifications led to the design of the transmission equipment on Janet6. Neil Shewry will then outline some of the challenges that have been overcome during the building of Janet6 before Jeremy Sharp concludes the presentation with a look at how Janet sees the network developing over the coming years.

ANN HARDING, SWITCH

Biography

Ann Harding, Project Manager has worked for SWITCH since 2007. Ann is responsible for Application Services in GN3plus, including AAI/eduGAIN, eduroam and eduCONF. Previously, Ann was Activity Leader of SA2 Multi-Domain Network Services in GN3, responsible for delivery of perfSONAR, Bandwidth on Demand and other multidomain services. At SWITCH, her responsibilities have included service management and the development of service-specific key performance indicators. Before joining SWITCH, Ann worked for HEAnet from 2000 to 2007, as a network engineer and, from 2002, as Network Operations Manager. She was also co-chair of a TERENA Task Force on Life Cycle and Portfolio Management for NRENs.

JOSH HOWLETT, JANET

Biography

Josh provides leadership in the overall management of Janet s Relationships with its international partners and other international bodies of relevance to Janet s programmes. His aim is to ensure that the strategic needs of the UK s research and education community can be met, where those needs have an international dimension; and to project Janet s influence within Europe and globally as a world-class network playing its full part in the development of global capabilities and policies in support of research and education.

Abstract

Janet: connecting globally

Research and education are global businesses. Today the UK is a key player within the growing numbers of international research collaborations, and also the rapidly expanding multi-billion pound markets for education products and services. Janet plays a critical role in supporting these activities and exports by connecting the community to its globally distributed collaborators and customers through its strategic international partnerships.

This presentation will discuss these partnerships within the context of the on-going evolution of the international research & education networking landscape, and the opportunities and challenges that these present to Janet and the community.

TIM KIDD, JANET

Biography

Tim Kidd is Operations Director for Janet and has overall responsibility for customer engagement and the provision of the services (including the IP network, security services and the Janet services that are provided over the network). Tim first worked for the Science and Engineering Research Council in its telecommunications group. Whilst at the SERC, Tim worked on the "coloured book" networking software on mainframes and was responsible for the very large scale data storage system and software provided to service the research community. Tim joined Janet as the Operations Manager and he then moved to the development division to work on the SuperJANET4 programme before being appointed as the then Production Services Director and subsequently as Operations Director. Tim has a degree in computer studies from the University of Southampton.

Abstract

Janet Update

Tim and Jeremy Sharp will briefly outline the operational and development work undertaken in Janet over the past year and cover some key work in the year ahead.

MARTIN KING, EALING, HAMMERSMITH AND WEST LONDON COLLEGE

Biography

Martin King is Head of IT services at Ealing, Hammersmith and West London College (EHWLC). Martin is especially interested in the intersection of technology and culture and how this is played out within education. After reading psychology and anthropology he went on to study computing and education. He has 30 years experience of working with IT in further education from teaching with mainframe terminals in the early 1980s through managing PC/LAN/ client-server networks in the 1990s to heading up IT services in one of the UK's largest further education colleges since 2001 in what can be described as the web era. Martin is a passionate advocate for personal learning both with and without technology and institutions. He is working on projects that promote mutual co-created learning, social learning, web working and personal technologies.

Abstract

The changing role of the network manager

The alternate titles I thought about for this presentation were "Networking for Rapunzel", "It's networking Jim but not as we know it" and "the network is our computer". The core theme in all of this is about change - how networks are changing, how our use and expectations of networks are changing and as a consequence how the roles of network and IT managers should also be changing.

The crux of the presentation is about how the intersection of new cultural and technology factors is radically changing what we think of as networking.

MARK LEESE, STFC

Biography

Mark Leese is the Senior Network Designer within STFC's Network and Communications Group, where he is responsible for various network development activities. He graduated in Computer Science from the University of Liverpool in 1998, and worked as a software engineer in the telecoms industry before joining the STFC (then CLRC) in 2002.

Previous STFC work centred on network monitoring and performance, for which Mark contributed to various groups including GridPP and the Open Grid Forum, where he co-chaired the Network Measurements Working Group. Between 2007 and 2009 Mark was seconded to Janet where he led their measurement and monitoring activities. He has also worked to educate scientists with respect to obtaining better network performance for their applications, mainly through the Networks for non-Networkers workshops.

Abstract

How to manage the network for a large research campus (policy based routing)

The Science and Technology Facilities Council (STFC) is one of seven UK publicly funded Research Councils. The STFC has a broad science portfolio, and shares its expertise with the academic and industrial communities in fields ranging from laser science to particle and nuclear physics. The Council also operates world class scientific facilities such as the ISIS pulsed neutron source and the High performance computing resources of the Hartree Centre.

The STFC's Rutherford Appleton Laboratory in Oxfordshire hosts a growing number of data centric scientific research projects which collaborate with partner organisations throughout the World. One example is the LHC Tier-1 centre which processes data in the order of PetaBytes a year from the 'big bang' machine, CERN's Large Hadron Collider. Another example is the JASMIN/ CEMS project

which performs data analysis on behalf of the UK and European climate and earth system modeling community. Although diverse, these projects all share a need for the timely transfer of large datasets around the World.

The talk will discuss how the Rutherford Appleton network is being re-designed and re-developed to meet the current and future needs of these projects, addressing their network throughput and resilience requirements in a scalable and repeatable manner.

TIM MARSHALL, JANET

Biography

Tim started his career in BBC Radio and TV where he rose to become Head of Events Group and was responsible for TV production of major national events, sports, factual and entertainment content. In 1990 Tim moved to Walt Disney as Senior Vice-President responsible for all international TV production. In 2000 he joined a new "dotcom", Wide Learning, as Chief Operating Officer, a company producing high quality commercial e-learning content for the financial and regulatory sectors. In March 2005 he became CEO at Janet(UK), the organisation responsible for developing and managing Janet, the UK's powerful world class research and education network. In 2012 the network was involved with BBC Research in broadcasting Super Hi-Vision (8k) from the London 2012 Olympics.

Tim is a graduate of Southampton University in Sociology, a Fellow of the Royal Society of Arts and the British Computer Society and member of the Royal Television Society. Tim has been engaged by the Athens, Beijing and London Olympics as a quality controller of international TV production and has had a special achievement award named after him at the National Association of Student TV Awards. For his charitable work he produces the Royal British Legion Festival of Remembrance at the Royal Albert Hall and is this year producing a West End Show for injured servicemen and women.

Abstract

A demonstration of value

The investment to build Janet6 as the next generation of the UK's national research and education network will add value across the sector from high-end research to universities, colleges and schools. It will also enable research to stay competitive on both a national and international level, and support the £60bn contribution that HE brings to the UK economy. Managing the network to the optical layer ensures that for the next decade we can achieve maximum agility and scalability to meet customer demands. The new operating model for Janet6 will allow us to do so very cost-effectively in these challenging times. Research shows that as institutions use innovative methods to deliver digital resources to their students, so their use of different devices over the network grows. In addition to the normal Moore's Law increase, there will also be massive data requirements from data intensive research. The high capacity Janet network means that research in biomedical sciences, climate science and genomics can continue at current rates, even with the need for the transfer of large data sets, as well as high performance computing, that are needed for research and analysis in these subject areas.

In such a volatile and changing market, Tim Marshall explores how we can ensure that we deliver value to customers in response to continually changing and demanding requirements.

MARILYN MOFFAT, OPEN UNIVERSITY

Biography

Marilyn has worked at the Open University for more than 25 years in a range of IT roles starting as a Research Adviser moving through roles in User Support and Systems Management to Head of Distributed Systems in 2000. In this role she was heavily involved in the shaping of a range of services to staff including the introduction of Active Directory, Exchange, WAN optimisation and latterly adding Lync to the portfolio of services available to staff.

In November 2012 she changed role to become Senior Infrastructure Architect as part of the restructuring of services, enabling her to use her extensive experience in introducing and establishing new solutions at a time of extensive systems change for the university.

Abstract

LYNC, OCS and federation - Microsoft Lync telephony

The proposed paper will outline the OU's journey into full Lync VOIP. It will cover the building of the business case, user engagement and lessons learned from the final roll out.

We will also present examples of changed / improved working practice and in particular highlight examples of collaboration that it has enabled.

JAMES MORRIS, RAVENSBOURNE

Abstract

Janet's video streaming support of UK Student Television Stations

NaSTA and Janet formed a partnership in 2012 to offer video streaming services to help make live broadcasting accessible to all our stations. This showreel and Q&A session aims to demonstrate just how we've utilised the potential of the video streaming servers to get more and more stations collaborating and broadcasting live, some for the very first time.

#nws41

PRESENTATION & SPEAKERS

MARK NEWALL, LOUGHBOROUGH UNIVERSITY

Biography

As a Senior IT Services Specialist at Loughborough University Mark is responsible for the storage and backup infrastructure at the University. He has been at the University for over 10 years and has been in his current role for over 6 years. During his time at the institution Mark has also looked after Microsoft Active Directory and the Solaris infrastructure. As a member of a team that predominantly manages Windows server operating systems Mark also has extensive experience of this discipline.

Mark has been involved in numerous projects, most recently as Technical Architect on the University's i2012 Data Centre project. This multi-million pound project delivered a hybrid cloud in partnership with Logicalis.

Loughborough is a large campus based, research-intensive University with diverse computing requirements. The University has a resilient virtual data centre distributed across two physical campus locations.

Abstract

Changing the face of Data Centre provision. Refreshing your entire network

Working with a new strategic partner (Logicalis) to deliver a hybrid cloud data centre intended to replace departmental and central IT server silos offered significant challenges of both a technical and people perspective.

This presentation will cover the final design and how the people and technical challenges were overcome resulting in the migration of over 350 servers and services from 16 departments onto the new platform.

PETER NORTH, COVENTRY UNIVERSITY

Biography

I started working at Coventry University in February 2009 as a Network Engineer within the network Services team and am currently part of the network development team where our focus is network planning, design, innovation and introduction of new services. Before working at the University I was a network engineer and then technical team leader for a virtual network operator supporting the WAN environment of customers mostly in the retail and manufacturing sector. I currently hold CCNP, CCDP and CCNA wireless certifications and in May 2012 passed the CCIE Routing & Switching written exam.

Abstract

Improve the Student Experience of Internet Services in Student Accommodation

This presentation will explore the challenges faced by Coventry University in provisioning adequate Internet service to university owned student houses located sporadically around Coventry. We will discuss the problems faced by students, which led to the creation of the project to improve the service. We will look at the solution provided from planning through implementation and examine its capabilities, vulnerabilities and its advantages. We will also talk about some of the issues faced supporting the new service and how we have dealt with them.

PRESENTATION & SPEAKERS

CHRIS NOTTAGE, UNIVERSITY OF NOTTINGHAM

Biography

I have worked as Head of Networks at the University of Nottingham for 3.5 years and manage a team of 16 covering all aspects of Voice and Data services.

I have over 30 years' experience working in IT in both technical and management roles.

At Bass Brewers I worked initially as a Unisys Mainframe Computer Operator before moving into roles in Business Analysis, Network Engineering (including the installation of Novell local area networks across the UK), and Project Management (supervising the implementation of local and wide area networks across locations in Spain, and Italy.

As Head of Programme management (EMEA and AP) at Marconi, I was involved in a number of Global project initiatives, eventually moving to Accenture as a Network Service Lead, responsible for leading a team of engineers providing support and project delivery for a number of client accounts. Finally, before joining the University of Nottingham I worked at HMV as Network and Infrastructure Manager

Abstract

International Networking

The presentation will focus on the following areas:

- The Networking issues that were experienced communicating to the Asian campuses in China and Malaysia over the internet historically and the justification for the implementation of the ICN (International Campus Network)

- The issues and challenges faced with setting up the ICN networking infrastructure at the remote (international) campuses and how these issues were resolved

- The on-going management of the ICN and relationship with the managed service supplier of wide area network services

- A summary of the recent re-procurement initiatives, testing undertaken with Janet on internet performance over the internet i.e. VC performance testing between campuses, and potential future development

GARY PARKER, LOUGHBOROUGH UNIVERSITY

Biography

Gary Parker has been a member of the Loughborough University Network Infrastructure and Telephony team since 2004. During this time he has helped maintain and develop the campus network infrastructure and monitoring systems and has presented at numerous Janet conferences across the country on diverse subjects from security/bandwidth management to IPTV and multimedia streaming. He currently manages the University's Unified Communications service, based on Cisco's CallManager system. Prior to this, Gary's 10 years working in industry involved mainly networking roles in primary and secondary education and the retail and logistics sectors.

Abstract

Integrating UC and network management tools

Managing an extended roll-out programme of VOIP services replacing Siemens DX equipment across a large campus prompted the development of custom tools in-house at Loughborough and integration of existing network management software. Gary will talk about the process of gathering and importing telephony data to an existing Active Directory implementation, managing a large DDI and non-DDI number range across multiple exchanges and tying together NetDisco, CallManager and command-line tools with Perl, MySQL, expect and LDAP.

PRESENTATION & SPEAKERS

DAVID RICHARDSON, JANET

Biography

David is leading the Mobility Development Team at Janet where he focuses on extending Janet access through a variety of mobile and network technologies. David graduated from The University of Kent with a BSc in Computer Science (2006), followed by an MSc in Information Security & Biometrics (2007). Since then David has worked in the Strategic Technologies Division at Janet, working on developments to voice, video-conferencing, middleware and mobility.

Abstract

Outcome of the Janet 4G RFI

Janet is running a small scale 4G trial to understand the benefits and limitations that existing 4G technology can offer as a mobile data connectivity platform. This talk will explore the objectives of the trial and discuss the options for a future Janet service as a progression to the existing Janet 3G offering.
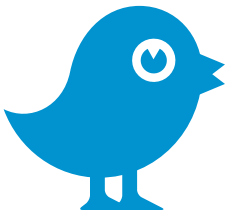
MIKE RICHARDSON, UNIVERSITY OF MANCHESTER

Biography

Mike Richardson has been a Senior Network Engineer for the University of Manchester for 6 years. Previously, he was an Email Administrator at the University for 5 years. Before that he was a junior dogsbody for the University. A degree, Masters and uncompleted PhD thesis at the same institution means that in one form or other he has been at the University for 25 of his 43 years. His involuntarily chosen fields are wireless, authentication, system administration, networking and software development.

Abstract

Bring your own device

The University of Manchester has a history of people bringing their own devices onto campus. It's been our default position for as long as there has been a network and applies to both wired and wireless. Support varies between "not at all" and "we'll configure it for you". Mobile devices have increased the pressure considerably. This talk will describe some of the challenges faced and how they've been dealt with.

CHRIS ROWLAND, PIRBRIGHT INSTITUTE

Biography

I started working as the Computer Manager at Pirbright in 1984; it was then the Animal Virus Research Institute, which, in 1987, became one of the four labs of the Institute for Animal Health and thence, in October 2012, The Pirbright Institute. Each lab consisted of well spread buildings situated across England and Scotland so, of necessity, I developed an interest in networking. Before that I had worked in Edinburgh and Basel (Switzerland) writing various application and system programs and spending spare time skiing.

Abstract

Constraints of provisioning networking and other computing facilities within challenging environments

The Pirbright Institute works on animal virus diseases. Some of these viruses are endemic to the UK, eg. Avian Influenza virus, and the research must be done in facilities where cross infection and infection from outside is prevented. Others are exotic to the UK, eg. Foot and Mouth Disease virus, and research then also requires that the agents must be prevented from exiting the facilities. Physical, chemical and behavioural barriers are in place to mitigate these threats and these create a difficult and, somewhat, interesting environment to work within when providing networking and other computing facilities within the organisation.

DAVID SALMON, JANET

Biography

David works with academics and research colleagues to understand their activities and the implications for the Janet network and the services it supports. This focuses on current and potential future services with an explicit research orientation such as the Janet Lightpath service for dedicated high-capacity data transmission; Janet Aurora, a dark-fibre platform for photonics and optical-systems research, and the e-Infrastructure programme.

Abstract

e-infrastructure

The presentation will cover updates on Janet's involvement in the e-Infrastructure programme, including fibre extensions to Janet6, plans for Janet Aurora, and the current position on how Industry might be involved.

JEREMY SHARP, JANET

Biography

Jeremy is Head of Strategic Technologies. His responsibilities cover the strategic development of the Janet network and the management of a technical programme that identifies emerging technologies and then develops production services.

Abstract

Janet Update

Jeremy and Tim Kidd will briefly outline the operational and development work undertaken in Janet over the past year and cover some key work in the year ahead.

Janet6 Project

Janet6 represents the largest project Janet has undertaken in its 28-year history, and after signing fibre and equipment contracts in the Summer of 2012 work to build and commission the new network will be approaching completion by the time of Networkshop41. In this session, Jeremy Sharp will begin by giving an overview of the Janet6 programme of work, why we needed a new network and how Janet went about gathering the requirements for that network. Rob Evans will describe how those requirements were translated through to a network design during the process of competitive dialogue with potential suppliers. Mark Corney of SSET will then relate how that design led to the construction of a national fibre network. Simon Allder of Ciena will describe how Janet's requirements and specifications led to the design of the transmission equipment on Janet6. Neil Shewry will then outline some of the challenges that have been overcome during the building of Janet6 before Jeremy Sharp concludes the presentation with a look at how Janet sees the network developing over the coming years.

NEIL SHEWRY, JANET

Biography

Neil is a Project Manager at Janet. Having completed a degree in Computer Science at Swansea University, he joined Janet in 2002 (then UKERNA) as part of the Applied Network Services Group. Neil moved into the Connections Management team in 2004 where he spent 3 years as a Customer and Connections Advisor. During this time Neil has also played a key role in the development and operation of the Janet Lightpath Service, and has experience in managing Janet's external peering processes. In 2007 Neil was promoted to Project Manager and began managing the procurement and rollout of regional network infrastructure, a role which involved successfully re-procuring the EastERN (previously EastNET), WMRN (previously MidMAN) and South West (previously SWERN) regions, as well as playing a key role in the establishment of the Janet/N3 gateway. In 2010 Neil was formally transferred into the Network Planning and Project Group, where his current role is that of Lead Project Manager for the procurement and rollout of Janet6.

Abstract

Janet6 Project

Janet6 represents the largest project Janet has undertaken in its 28-year history, and after signing fibre and equipment contracts in the Summer of 2012 work to build and commission the new network will be approaching completion by the time of Networkshop41. In this session, Jeremy Sharp will begin by giving an overview of the Janet6 programme of work, why we needed a new network and how Janet went about gathering the requirements for that network. Rob Evans will describe how those requirements were translated through to a network design during the process of competitive dialogue with potential suppliers. Mark Corney of SSET will then relate how that design led to the construction of a national fibre network. Simon Allder of Ciena will describe how Janet's requirements and specifications led to the design of the transmission equipment on Janet6. Neil Shewry will then outline some of the challenges that have been overcome during the building of Janet6 before Jeremy Sharp concludes the presentation with a look at how Janet sees the network developing over the coming years.

SIMON SHIU, HP LABS

Biography

Simon Shiu is a senior research manager at HP Labs where he has managed a number of information security research projects, from security governance through to trusted infrastructure. He has published several academic and professional articles on security management, is a full member of the IISP (M.Inst.ISP), holds a PhD in computer science from Durham University and is a visiting professor at Newcastle University.

Abstract

Contested cyberspace

2017: 3.4 billion individuals online, 3.3 billion have little idea how to protect themselves. Over 25 million apps, more than 24 million are written with little attention to security and are easy to subvert. And social networking means we're all friends with those that are infected. 2020: 1 trillion sensors and actuators connect the real and cyber worlds, dependence and surveillance have made the Internet the most important and most feared technology on the planet. So are we headed for a dark future? Or can technology innovation help to preserve the online freedoms we've had for the past 30 years?

#nws41

FRANK WADMORE, UCLAN

Biography

1977 -1987- Served a technical apprenticeships with Lancashire country council as a radio technician providing technical support for the emergency services working on communications and support systems.

1987 - 1992 - Worked as an audio visual senior engineer with a regional company specialising on conference and multimedia events.

1992 – 1997 - Senior technician for Preston Colleges supporting the Electrical, Electronics and Engineering departments. During this time studied part time for a Degree in at UCLan in Electronics and Computing, graduated 1996 with first class honours.

1997 – 2006 - Principal technician in the Engineering and Product Design departmental at UCLan, worked my way up to Principal Technical Officer for the Faculty of Design and Technology.

2006 – date - Networks and Telecoms manager for UCLans Learning and Information Service, responsible for providing and supporting networking infrastructure and associated network systems and services for the university locally, regionally and internationally.

Abstract

The challenges of delivering IT infrastructure and services for a new International Campus

In October 2012 UCLan opened its doors to its first international campus in Cyprus, on time and in budget. Taking aside the obvious language and cultural differences, there were a number of challenges and hurdles to overcome as one would expect. What I hope to do in this presentation is share with you the highs, the lows, what went well and what we would do different next time.

IAN WALDEN, QMUL

Biography

Ian Walden is Professor of Information and Communications Law and head of the Institute of Computer and Communications Law in the Centre for Commercial Law Studies, Queen Mary, University of London. His publications include EDI and the Law (1989), Information Technology and the Law (1990), EDI Audit and Control (1993), Cross-border Electronic Banking (2nd ed., 2000), Telecommunications Law Handbook (1997), E-Commerce Law and Practice in Europe (2001), Computer Crimes and Digital Investigations (2007), Media Law and Practice (2009) and Telecommunications Law and Regulation (4th ed., 2012). Ian has been involved in law reform projects for the World Bank, the European Commission, UNCTAD, ITU, UNECE and the EBRD, as well as for a number of individual states. Ian was awarded a Council of Europe Human Rights Fellowship (1987-88); was a seconded national expert to the European Commission DG-Industry (1995-96); Board Member and Trustee of the Internet Watch Foundation (2004-09) and on the Executive Board of the UK Council for Child Internet Safety (2010-12). Ian is a solicitor and Of Counsel to Baker & McKenzie. He is currently a member of the Press Complaints Commission.

Abstract

The future direction of network regulation

With a new Communications Act promised for 2015, on-going EU developments and current negotiations within the ITU over reform of the ITARs, this session will examine the potential impact these developments may have on the regulation of networks, as well as consider the direction of regulation in a converged environment.

NICK WALKER, MWR INFORMATION SECURITY

Biography

- Speaker at brucon 2010, Securi-tay 2012 and 2013
- Ethical Hacking and Countermeasures BSC(hons) University of Abertay Dundee
- Security Consultant at MWR infosecurity

Abstract

Android

Android has firmly established it's place as a contender in the smartphone market in recent years, and the number of applications available for the operating system has increased drastically. Our phones live in our pockets and contain vast amounts of information about ourselves, as we rely on them for everything from communication, to purchases and banking. The security of these applications is obviously imperative, yet the technology and the security of such is widely misunderstood. This talk will explore the security implications of developing android applications, and a walkthrough of a methodology used by security consultants to identify vulnerabilities. (featuring Mercury 2.0 http://labs.mwrinfosecurity.com/tools/2012/03/16/mercury/)

JOHN WHITE, KEELE UNIVERSITY

Biography

My post degree (computer science and electronic engineering) studies and career started with research into CCD television cameras and digital signal processing techniques. This moved on to ultrasonic non-destructive testing where I was involved in hardware design and digital signal processing. As a lecturer in electronic engineering I became more and more involved in designing and supporting general computer systems to support teaching and research activities. I then moved over to IT, becoming head of a central IT service supporting the server, network/communications infrastructure and general computing service at Keele. After a series of internal changes I became Deputy Director in the Finance and IT Directorate, responsible for all aspects of IT including corporate information systems and audio-visual services.

Abstract

Deploying Major Infrastructure at Keele

Keele was one of the first universities to provide a network service to students, which started in 2000 with a hardwired system to 3200 rooms in the halls of residence. In parallel there has been a piecemeal provision of WiFi in teaching spaces and areas where students congregate between classes.

Keele is presently installing a campus-wide WiFi system to all buildings and includes coverage of outdoor spaces. The WiFi system will replace the hardwired network in the halls of residence.

The presentation will cover the design of the new systems and the evolution of techniques Keele has used to manage the student demand for network access.

ROWAN WILSON, OSSWATCH

Biography

Rowan Wilson has worked in IT since 1996 and has been active in internet development since its early years. Working within the University Computing Services in Oxford since 2001 Rowan has worked in supporting academic research and development in the Arts and Humanities through the work of the Oxford Text Archive. More recently Rowan has become the licensing specialist within the JISC-funded free and open source software (FOSS) advisory service OSS Watch helping academic developers choose licensing and sustainability models for their works and unpicking problematic FOSS reuse issues where they occur. Rowan was also instrumental in creating the Creative Commons-licensed Open Educational Resources podcasting project at Oxford known as OpenSpires which has released over 1000 Oxford lectures for redistribution and reuse."

Abstract

Getting the Maximum Benefit from Free and Open Source Software

Free and open source software is now widespread and well-used, but are we getting the maximum benefit from it? This talk covers the basic of free and open source software and recommends the best ways to utilise it in your IT and procurement strategies.

PETER WOOD, LANCASTER UNIVERSITY

Biography

Peter Wood is a Network Security Specialist at Lancaster University, initially joining the institution in 2005 and later moved to a security focused role in 2009. He is one of two responsible for the development of an in-house enterprise grade NAC solution, which has driven the institutions network edge connectivity since 2010 with greater than 99.99% availability. He additionally acts as a liaison with the School of Computing and Communications and is currently involved OpenFlow research.

Abstract

NAC from Scratch: Supporting Corporate and Research

In 2009 Lancaster University ran a hugely uncontrolled network, while different networks were separated by VLANs there was no control over the edge ports and all configuration was manual. Over the year a highly fault tolerate system was developed which controls the institutions wired network with over 65k ports and 9k concurrent clients. This presentation explains our journey, what we've learnt and discovered, where we want go in the future and how we've helped further research goals while balancing the needs of the corporate departments.

FIONA WYCHERLEY, PIRBRIGHT INSTITUTE

Biography

I started working at the Pirbright Institute in 1990 when it was then The Institute for Animal Health consisting of four diverse sites across the country; I was based at the Compton site and have been there since. I was originally employed as a database administrator before moving into a more operational role and later taking over the management of the department on the Compton Site. Before working at the Institute I worked for various companies in a management information services role having left the teaching profession. Following the announcement of the consolidation of the Compton and Pirbright sites I became the sole person running the computing facilities on the Compton site to assist with it closure.

Abstract

Constraints of provisioning networking and other computing facilities within challenging environments

The Pirbright Institute works on animal virus diseases. Some of these viruses are endemic to the UK, eg. Avian Influenza virus, and the research must be done in facilities where cross infection and infection from outside is prevented. Others are exotic to the UK, eg. Foot and Mouth Disease virus, and research then also requires that the agents must be prevented from exiting the facilities. Physical, chemical and behavioural barriers are in place to mitigate these threats and these create a difficult and, somewhat, interesting environment to work within when providing networking and other computing facilities within the organisation.
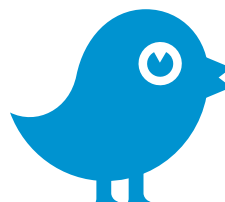
EXHIBITION

DELEGATE LOUNGE

At this year's Networkshop, delegates can take advantage of the Delegate Lounge on the ground floor of Chancellor's Building.

We will also have eduroam experts available for you to talk to at certain break times.

In the delegate lounge you will find:

- Our eduroam technical staff
- Comfy seating
- Meeting area
- Six desktop computers and a printer
- Power sockets

We look forward to seeing you there!

NETWORKSHOP41 EXHIBITING COMPANIES

Our Exhibition will be very well supported once again, by a variety of companies – including old friends and new companies exhibiting for the first time: welcome to one and all. Delegates will be urged to make full use of refreshment and meal breaks to visit the Exhibition, located in the three exhibition areas within Chancellor's Building, and also to join exhibitors for a drinks reception on Tuesday evening.
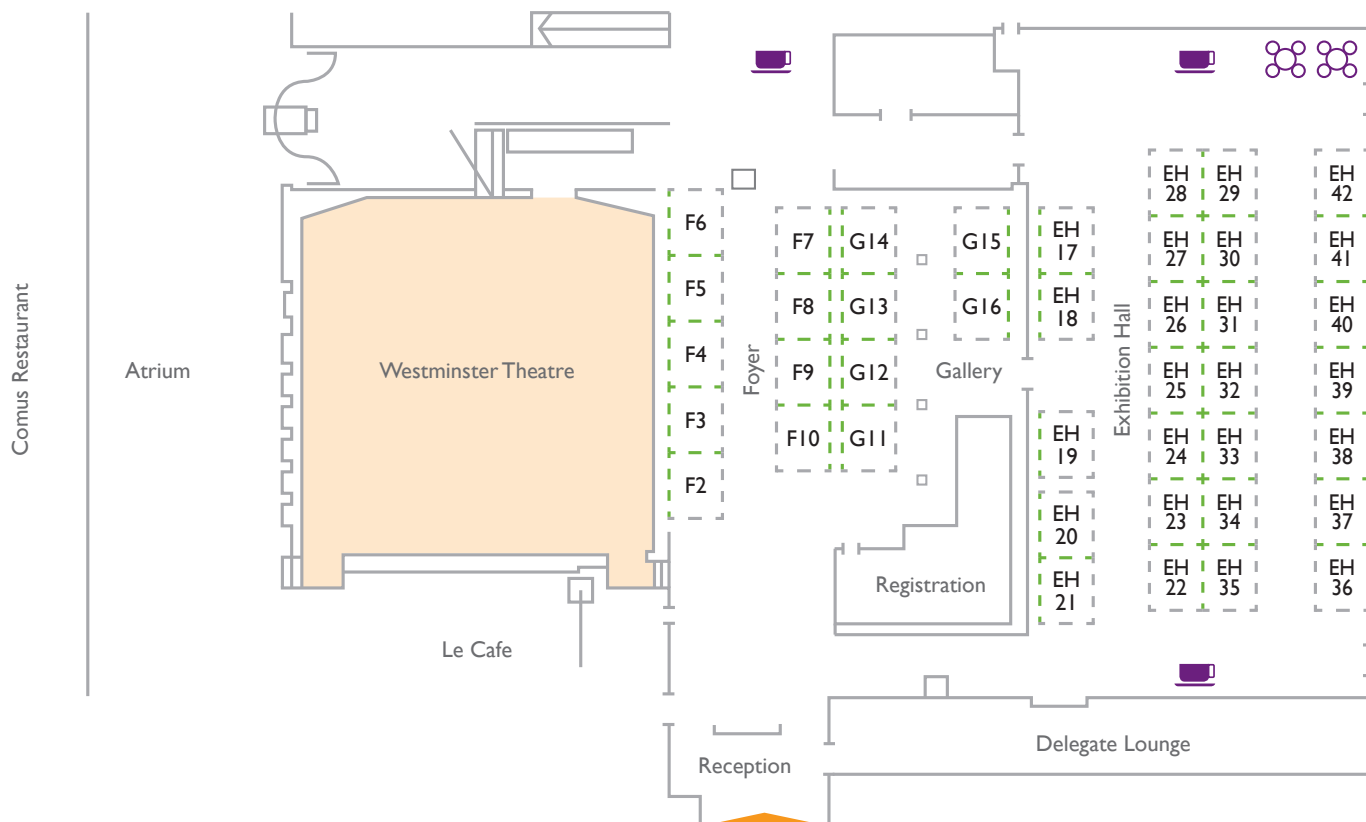
Key to exhibition location:

F –Foyer   G - Gallery   EH - Exhibition Hall
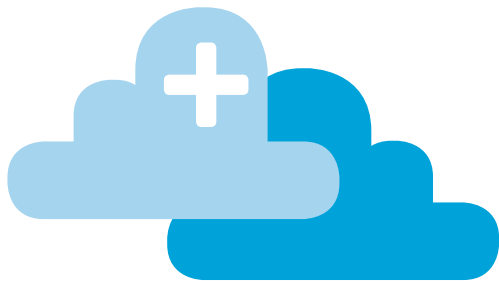
EXHIBITION FLOOR PLAN

KEY

- – – – Shell Walls
- – – – Open side with Fascia

NETWORKSHOP41 EXHIBITING COMPANIES

Exhibitor	Stand	Exhibitor	Stand
Accumuli Security	EH22	Imtech ICT Ltd	EH24
ADA Networks Ltd	EH21	Indigo Solutions Europe Ltd	F6
Allied Telesis	EH40	IP Performance	F7
Arista Networks	F2	ipoque GmbH	EH34
Brocade	EH32	Juniper Networks	G11
BT Business	F9	Keycom plc	EH30
C3 Ltd	G13	Khipu Networks	EH36
Calyx Managed Services	EH33	Meru Networks	EH26
Check Point Software Technologies Ltd	G12	Metropolitan Networks	EH27
Cisco Systems	F4	Molex Premise Networks	EH42
CMS plc	EH18	Opengear	EH17
Dell	EH31	Out of Band Solutions Ltd	EH38
Dell SonicWALL	F8	Palo Alto Networks	EH41
EfficientIP	EH23	Pervasive Networks	F3
European Electronique	EH19	Qolcom	EH20
Excel	F10	SSE Telecomms	F5
Extreme Networks UK	G14	StudentCom	EH25
FTL Networking Solutions	EH35	Triplecomm Ltd	EH37
Gamma	G15	UCISA	EH28
HellermannTyton	EH29	Virgin Media Business	G16
HP Networking	EH39		

ACCUMULI SECURITY
EH22

www.accumuli.com

Contact	Caroline Barker-Littley, Group Marketing Manager
Email	caroline.barker-littley@accumuli.com
Telephone	01256 303700

Accumuli is a leading, rapidly growing, UK-based independent specialist in IT Security. Accumuli specialises in value-added solutions and services to help organisations secure their business against the ever-increasing threat landscape. Accumuli's solutions and services secure IT infrastructure, remove complexity of security management, provide real time security intelligence and reduce total cost of implementation and on-going management. Accumuli achieves this through a combination of Technology, Professional and Managed Services, underpinned by its highly experienced, highly skilled employees.

Visit us to gain more of an in-depth insight into what is really required to keep your network, infrastructure and data as secure as possible.

ADA NETWORKS LTD
EH21

www.adanetworks.com

Contact	Peter Keast, Operations Director
Email	pkeast@adanetworks.com
Telephone	08448 718081

EXHIBITION

Formed in 1994, ADA Networks is a specialist provider of voice, video, data and enterprise mobility solutions. We strive to become the industry benchmark by promoting a culture of excellence that creates long-term value for our clients, whilst delivering best of breed technologies and innovative solutions.

Our clients appreciate the way our solutions focused team combines impressive technical skills with thought leadership and industry insight. We understand the challenges faced by our clients across many industries and have a lively insight into the way improving communication infrastructure releases value for our clients.

ALLIED TELESIS   EH40

www.alliedtelesis.co.uk

Contact   Jane Brett, Sales Director/UK and Ireland
Email   jane_brett@alliedtelesis.com
Telephone   02031 788100

Allied Telesis understands the challenges schools, colleges and universities face in delivering the ever increasing demands for higher performance, addressing security risks whilst providing maximum reliability — especially with on line examinations, greater use of e-learning within the classroom and students bringing in their own devices to access learning. All of this to be delivered with a reducing budget. We work with over 300 UK educational establishments providing a core to client network solution - enabling learning while delivering: Complete control over security risks; Flexible/expandable solutions; Carrier class performance/reliability; Excellent return on investment; and Industry leading price/performance.

ARISTA NETWORKS   F2

www.aristanetworks.com

Contact	Lisa Elliott, Channel Development & Marketing Manager, EMEA
Email	lelliott@aristanetworks.com
Telephone	07769 908968

Arista Networks was founded to deliver networking solutions for large data center and high-performance computing environments. Arista delivers a portfolio of 1, 10 & 40 Gigabit Ethernet switches that redefine network architectures, bring extensibility to networking, and dramatically change the price/performance of data center networks.

At the core of Arista's platform is the Extensible Operating System (EOS™), a network operating system with single-image consistency across hardware platforms, and modern core architecture enabling in-service upgrades and application extensibility. Arista delivers solutions worldwide through partners with a strong dedication to customer success.

BROCADE   EH32

www.brocade.com

Contact	Bethany Brown, Marketing Manager
Email	Bethany@brocade.com
Telephone	07766 765199

Brocade (NASDAQ: BRCD) is the pure-play networking company that innovates to make high-performance networks easier to deploy, manage, and scale in the world's most demanding environments. Through industry-leading technology and unmatched expertise, Brocade delivers resilient networks that increase agility and efficiency while helping organizations stay ahead of change.

From pioneering fabrics to software-defined networks, Brocade provides innovative solutions for data center, campus, and service provider networks that reduce cost and complexity while facilitating virtualization and cloud computing. To help ensure a complete solution, Brocade partners with world-class IT companies and provides comprehensive education, support, and professional services offerings.

BT BUSINESS   F9

www.bt.com

Contact   Chris Thompson, Account Director - Education
Email   chris.3.thompson@bt.com
Telephone   08701 148306 / 07801 610116

BT Local Business – a network of local offices bringing BT to your doorstep. We work with Universities across the UK, helping them to control costs while increasing efficiency through better communications. Working with world class partners, we offer flexible, complete solutions for all your Voice, IT and Communication needs.

For more info go to www.btlocalbusiness.co.uk or call us on 0800 389 3364

C3 LTD   G13

Contact	John Wood, Sales and Marketing Director
Email	sales@c3.co.uk
Telephone	01223 427700

C3 specialises in multi-media communication solutions that help clients to streamline communication processes, generate new revenue streams, improve call handling quality, and ultimately lower costs.

We provide a proven IT solution for telephony applications, with installations at Cambridge, Oxford, London Met and Sheffield Hallam, to name a few. Our products are all switch agnostic and support both TDM and SIP simultaneously, providing customers with a cost-effective and future proof investment wherever they are in the IP migration process.

CALYX MANAGED SERVICES   EH33

Contact	Alison Cooper, Marketing
Email	Alison.cooper@calyxs.com
Telephone	07795 036459

Calyx understands the challenges when delivering evermore complex ICT services in Higher & Further Education: the need to deliver innovative technologies and applications to attract students and field-

leading researchers, enhance the learning experience and reduce cost, whilst meeting demand for application delivery, connectivity, data access, security and exponential growth in user expectations.

Calyx simplifies the provision and implementation of secure and reliable infrastructure, connectivity, unified communications, networking, applications and security solutions.

We offer support from "break fix" through to fully managed services using our own 24/7 NOC and support desk and provide consultancy, project design, implementation and professional services.

CHECK POINT SOFTWARE TECHNOLOGIES LTD   G12

www.checkpoint.com/index.html

Contact	Tracy McCormack, Field Marketing Specialist
Email	tracymc@checkpoint.com
Telephone	01256 374568

Check Point Software Technologies is the only vendor to deliver Total Security for physical or virtual networks, data and endpoints.

Check Point's dynamic Software Blade architecture delivers secure, flexible and simple solutions that can be fully customised to meet any organisations security needs.

Check Point's Security Gateway Virtual Edition works with VMSafe to offer enterprise class security to the virtual world.

EXHIBITION

CISCO SYSTEMS

www.cisco.com

Contact   Martin Butler, Regional Sales Manager
Email   mbutler@cisco.com
Telephone   01612 495766

Cisco Systems is a worldwide leading supplier of Date Video and Collaboration architectures to the education market and has been working with Educational Establishments to form long-lasting partnerships which identify their needs and provide solutions that support their ongoing success.

CMS PLC

www.cmsplc.com

Email   sales@cmsplc.com
Telephone   01252 379379

CMS plc is a leading UK distributor of IT infrastructure, Network and Security products. For over 20 years, the company has provided products from leading manufacturers. With our head office and main distribution centre located in Farnborough, Hampshire and fully stocked trade counters in London, Northampton and Manchester, the company is well positioned to provide excellent customer service on a nationwide basis.

For more information, please call on + 44 (0)1252-379379 or email us on sales@cmsplc.com

Alternatively visit our website on www.cmsplc.com

#nws41

DELL   EH31

www.dell.co.uk

Contact	Keith Cahoon, Networks Sales Specialist
Email	keith_cahoon@dell.com
Telephone	07808 640912

Dell is a leading global provider of infrastructure and software solutions to the education market. Our range of integrated technology solutions spans desktop to data centre and covers all major areas of client, network, server, storage and security. Our next generation network and security solutions provide our customers with increased performance and greater efficiency while offering best value and a lower total cost of ownership. Dell's network solutions can now be combined with Dell's next generation server and storage platforms offering converged data centre infrastructure solutions specifically geared to the further and higher education and research markets.

DELL SONICWALL   F8

www.sonicwall.com

Contact	Stephen Carr, Public Sector Sales Manager
Email	Stephen_Carr@dell.com
Telephone	07525 68402

Guided by its vision of 'Dynamic Security for the Global Network', Dell SonicWALL develops advanced intelligent network security and data protection solutions that adapt as organizations evolve and as threats evolve. Trusted by small and large enterprises worldwide, Dell SonicWALL solutions are designed to detect and control applications and protect networks from intrusions and malware attacks through award-winning hardware, software, and virtual appliance-based solutions.

EFFICIENTIP   EH23

www.efficientip.com

Contact	Scott Breadmore, UK Manager
Email	sb@efficientip.com
Telephone	01189 026630

EfficientIP is a software editor that provides hardware and software appliances to manage IP addresses and DNS-DHCP services (DDI) into a fully integrated solution. Our solution SOLIDserver™ centralizes all information from the IP plan and DNS and DHCP servers in one single interface and allows customers to manage their network services as a single entity, ensuring high availability, security and network consistency.

EUROPEAN ELECTRONIQUE   EH19

www.euroele.com

Contact	Matt Hawkins, HE Networking Sales Specialist
Email	Matt.hawkins@euroele.com
Telephone	01865 883300

European Electronique is a market leader in the provision of innovative and exciting ICT solutions. Working in partnership with globally recognised manufacturers we have developed the skills and expertise to integrate complex ICT Solutions.

We supply a full range of professional ICT services; including consultancy, solution design, systems and network implementation, software development, project management and a range of support services. We pride ourselves on being a dynamic, agile and customer centric organisation.

We strive to deliver the best value by providing our customers with cutting edge products at competitive prices, backed by high quality customer services and technical support.

EXCEL   F10

www.excel-networking.com/home/

Contact	Jason Holroyd, Business Development Manager
Email	jasonh@excel-networking.com
Telephone	07811 409845

Excel is a world-class premium performing end-to-end infrastructure solution – designed, manufactured, supported and delivered – without compromise.

Excel is driven by a team of industry experts, ensuring the latest innovation and manufacturing capabilities are implemented to surpass quality and performance standards, technical compliance and excellence.

Our experts will be in attendance and will be handing out copies of the Excel Encyclopaedia Edition 2 which has been designed to provide you with a thorough understanding of structured cabling and more importantly a complete insight into the Excel Structured Cabling Solution.

Please visit us on stand F10.

EXTREME NETWORKS UK

G14

www.extremenetworks.com

Contact	Andy Butcher, Account Manager
Email	abutcher@extremenetworks.com
Telephone	01628 552400

Extreme Networks have always been at the forefront of innovative Networking which has led to their sustained high penetration in the UK Higher Education market. That tradition continues today with their vision, technology, ability and focused dedication to Higher Education challenges to deliver an inclusive solution that spans the converged edge to the enterprise core and beyond. Extreme accomplish this through best-in-class Ethernet technologies for the wired and wireless infrastructure with an eye on BYOD. Their quality of end user experience is coupled with unequalled price/performance, sustainability, multi-vendor interoperability and customer intimacy.

FTL NETWORKING SOLUTIONS

EH35

www.fibre.co.uk

Contact	David Taylor, Technical Sales Director
Email	david@fibre.co.uk
Telephone	01344 752222

For over 20 years, FTL (Fibre Technologies Limited) has provided Fibre optic network connectivity and building security solutions to major UK Public and Private sector organisations. For example, we count Tier 1 Telcos like Virgin Media, and major manufactures like Land Rover Jaguar amongst our top customers. Providing connectivity from E1 through to 100Gb is our speciality, combined with professional services for design, installation, commissioning, support & maintenance.

EXHIBITION

GAMMA

www.gamma.co.uk

Contact	Stephen Ashley-Brian, Product Manager — SIP Trunking
Email	Stephen.ashley-brian@gamma.co.uk
Telephone	01635 881267 / 07436 070007

Gamma is a next generation network operator that creates simplified communications and software services for business. With a broad range of fixed voice, mobile and data services designed specifically to take to market through channel partners, Gamma leads on network strength, products that are easy to use and provision and quality through automation. Switching in excess of 800 million minutes a month and serving over 650 Channel Partners, Gamma is one of the UK's largest providers of voice services and related applications carrying c13% of the UK's fixed business telephony.

HELLERMANNTYTON   EH29

www.htdata.co.uk

Contact   Rob Hickford
Email   sales@htdata.co.uk
Telephone   01604 707420

HellermannTyton is an established and innovative leader in the provision of global network infrastructure solutions, offering a broad range of quality, high performance structured cabling products. Our Network Sciences product range includes the unique pre-terminated, pre-tested RapidNet system, which can reduce installation time by up to 85%.

Through innovation and development the RapidNet system has evolved to offer high performance and high density pre-terminated solutions including our Cat6A and fibre range Deca10 and our latest high density products; 12 port RapidNet cassette (offering 48 ports in 1U) and VHD MTP Fibre RapidNet (offering up to 576 port in 1U).

HP NETWORKING   EH39

http://www.hp.com/uk/networking

Contact   Jason Renders, HP Networking Specialist
                            Higher Education & Research Hewlett-Packard
Email   Jason.renders@hp.com
Telephone   07824 537582

Higher education is in the throes of remaking itself. Administrators increasingly want to attract the best and brightest academic talent. Meanwhile, students expect instant connectivity, mobility, and highly collaborative and interactive learning environments.

This evolution is driving institutions to transform their networks to deliver innovative applications to meet the demands of today, with an eye toward future requirements. HP's FlexNetwork architecture enables predictable performance, high availability, and the comprehensive management needed to support large-scale virtualisation and convergence implementations, allowing deployment of real-time media-rich learning solutions and faster innovation.

Discover exciting new ways to connect at the HP Networking stand.

IMTECH ICT LTD   EH24

www.imtechict.co.uk

Contact	Hugh Cartwright
Email	enquiries@imtechict.com
Telephone	01256 312350

Experienced technical solutions provider Imtech ICT is currently Ranked #1 in the Janet framework evaluation for supply of Routing & Switching equipment plus Services and a member of the EMBL Framework Storage & Networks agreement for Research. Imtech ICT delivers measurable advantages in the areas of the datacentre, software, server & storage, security & networking, managed services and sustainable technology. Imtech ICT helps HEIs to re-think ICT in the light of the Cloud to take advantage of new and emerging solutions which deliver significant technology improvements as well as increasing student retention rates.
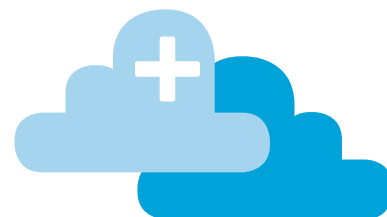
INDIGO SOLUTIONS EUROPE LTD   F6

www.indigo-solutions.eu

Contact   Steven Carr, Director
Email   steven@indigo-solutions.eu
Telephone   03333 444520

Indigo Solutions are a systems integrator and reseller for Impulse Point in the UK and Ireland. Impulse Point delivers the industry's most scalable and easiest to deploy and maintain NAC solution. SafeConnect is the solution of choice for large, diverse environments — such as Education — where the "Consumerization of IT" is driving the need to provide endpoint security policy enforcement for a myriad of personally-owned, non-managed, mobile computing devices.

Deployed and supported as a managed service, SafeConnect's rapid installation, network independence, and track record of reducing help desk calls results in lower total cost of ownership and reduced risk.

IPOQUE GmbH   EH34

www.ipoque.com

Contact   Silke Tambor
Email   silke.tambor@ipoque.com
Telephone   +49 341 59403 099

EXHIBITION

ipoque provides network intelligence and policy control solutions helping broadband operators to understand traffic patterns, monetize new data services and improve the quality of experience for their subscribers. Our application classification and analysis engine enables bandwidth and congestion control, prioritized quality of service delivery and detailed network visibility. Broadband operator customers worldwide rely on ipoque's policy control solution to limit equipment and operating expenditures, increase profitability and maximize subscriber satisfaction. Many network equipment providers use ipoque's DPI technology in their network security, WAN optimization and network management products. ipoque was founded in 2005 in Leipzig, Germany, and has become a Rohde & Schwarz company in 2011.

IP PERFORMANCE   F7

www.ip-performance.co.uk

Contact	Mike Baker, Sales Director
Email	info@ip-performance.co.uk
Telephone	01275 393382

IP Performance Limited is a leading supplier of customised network infrastructure and security solutions. Partnered with Allot, Blue Coat, Bluecat, Juniper, Avocent/Cyclades, Barracuda, Meru, LogRhythm, Alcatel-Lucent, Riverbed and Xangati, our delivery of complex network solutions using leading-edge technology products is backed by our 24-hour support technical assistance centre.

We supply Academic organisations with network security, IP address management and DNS/DHCP solutions, also bandwidth management solutions, URL filtering, virus management, server and application load-balancing, anti-spam, wireless LAN, logging and event management solutions, routers/switches.

Please visit the stand to win our audio-visual prize and obtain an invite to our Tuesday Evening event.

JUNIPER NETWORKS

<div align="right">G11</div>

www.juniper.net/uk/en

Contact	Alan Butler, Head of UKI Field Marketing
Email	albutler@juniper.net
Telephone	01372 385500

Juniper Networks is in the business of network innovation. From devices to data centers, from consumers to cloud providers, Juniper Networks delivers the software, silicon and systems that transform the experience and economics of networking.

KEYCOM PLC

<div align="right">EH30</div>

www.keycom.co.uk

Contact	Mick Everett
Email	mick.everett@keycom.co.uk
Telephone	01536 315802

Keycom specialises in the provision and support of fully managed Internet, telephony and media solutions for student, keyworker and military residential accommodation. Now serving nearly 50,000 users across the UK, Keycom has built a national, high capacity, highly reliable network. With a full suite of IPTV, VoIP and wireless services, Keycom is one of the leading suppliers of high-quality fast and reliable Internet access; supported by dedicated customer service and account management teams.

Keycom also provides IT solutions, telephony and networking infrastructure and Microsoft training for Universities and Housing Associations.

KHIPU NETWORKS   EH36

www.khipu-networks.com

Contact	Andrew Brimson, Director
Email	Andrew.brimson@khipu-networks.com
Telephone	08452 720900

KHIPU is a leading Cyber Security Solutions provider with a focus on the Education Sector. With over 10 years' experience and 400+ education customer deployments world-wide, we have specialist expertise in meeting the challenges for dynamic network security for students / staff / visitors and have developed, delivered and supported innovative BYOD solutions for over 7 years. For 2013 at Networkshop we focus on the "BYOD BIG BANG" and will demonstrate device / application and user provisioning and management with a range of new and leading technologies. We are looking forward to talking with you.

MERU NETWORKS   EH26

www.merunetworks.com

Contact	Henry Batten, Sales Manager
Email	hbatten@merunetworks.com
Telephone	01344 393055

Meru Networks have helped over 1000 education customers in UK & Ireland to enable their mobile and e-learning vision. Over 10 schools per week are choosing Meru's technology which was designed to handle high densities of mobile users. Meru's unique architecture puts the network in control, not the devices.
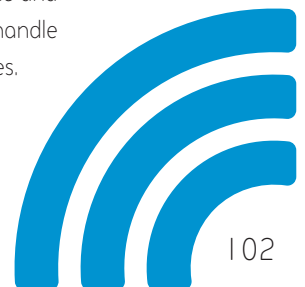
METROPOLITAN NETWORKS   EH27

www.met-networks.com

Contact	Thomas Thomas, Sales Manager
Email	tthomas@met-networks.com
Telephone	01689 836223

Metropolitan Networks is a specialist in network infrastructure and security. We explore how technology and services help organisations address their business issues and challenges, and realise their possibilities of creating operational efficiency. We apply new thinking and ideas to create more simple, valuable and trusted experiences with technology to continuously improve the way our customers live and work. We understand security, networks and the demand for rapid evolution of services. Working with customers like Ericsson, H3G and Channel 4, we have a proven track record of quality and value. Visit us at EH27 for more information.

MOLEX PREMISE NETWORKS   EH42

www.molexpn.co.uk

Contact:	Nigel Hollingsworth
E-mail:	nigel.Hollingsworth@molex.com
Telephone:	07714 853733

Molex is showcasing MIIM™ - a comprehensive solution offering advanced network management at the physical layer.

#nws41

Implementing MIIM as an integral part or addition to your physical layer enables greater knowledge of network status and connected devices, quicker fault recognition and issue resolution, and a more robust and secure network than ever before.

For over 30 years we have provided superior and innovative Data Transport solutions including UTP, FTP and fibre, to networks and organisations worldwide. Unique to our copper range is the DataGate jack, with spring-loaded shutter technology it offers high performing protection from contaminants and damaged patch cords.

OPENGEAR   EH17

www.opengear.com/uk

Contact	Robert Waldie, Business Development
Email	emea@opengear.com
Telephone	02081 334255

Opengear solutions secure and simplify remote access, monitoring & control of network, server, power & facilities infrastructure in the data centre and at distributed sites.

We integrate true out-of-band console management, environmental sensors & automated remediation into a single appliance, ensuring our customers maximise uptime and maintain SLAs.

OUT OF BAND SOLUTIONS LTD   EH38

www.outofbandsolutions.com

Contact	David Theobold, Managing Director
Email	sales@outofbandsolutions.com
Telephone	01628 525511

The remote power and console management specialists, Out of Band Solutions enables remote power and console access for network devices (such as firewalls, routers etc.) via existing network infrastructure, secure fixed lines, or mobile GPRS.

Janet, along with many leading universities, uses Out of Band Access to:

• reduce onsite visits

• minimise downtime of electronic devices

• meet service levels

• reduce energy costs

By using Out of Band Access to remotely manage electrical equipment, universities significantly save on engineer call out costs, as well as overall energy costs.

Please visit: www.outofbandsolutions.com

EXHIBITION

PALO ALTO NETWORKS   EH41

www.paloaltonetworks.com

Contact   Steve Gerrard, Marketing
Email   sgerrard@paloaltonetworks.com
Telephone   07920 483633

Palo Alto Networks has pioneered the next generation of network security with our innovative platform that allows you to secure your network and safely enable the increasingly complex and rapidly growing number of applications running on your networks. At the core of this platform is our next-generation firewall which delivers visibility and control over application, users, and content within the firewall using a highly optimized hardware and software architecture. This platform uniquely offers you the ability to identify, control, and safely enable applications while at the same time inspecting all content for all threats all the time.

PERVASIVE NETWORKS   F3

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www.pervasive.co.uk

Contact	Louise Pengilley, Marketing Manager
Email	louise.pengilley@pervasive.co.uk
Telephone	07775 625167

Pervasive are experienced in the design, implementation and support of secure, high availability campus infrastructure within education.

Pervasive Networks were selected by The University of Manchester to upgrade their campus wireless network with an Aruba Networks 802.11n solution, which is one of the largest single campus deployments within Europe.

Other customers include London Business School, Loreto College, University Wales College Newport and University of Birmingham.

Our Strategic Partners include

- Aruba Networks
- Brocade
- Fortinet
- HP Networking
- Infoblox
- Secure Envoy

Visit our stand for the chance to win an electronic Raspberry Pi Starter kit or one of our Raspberry Pi manuals.

EXHIBITION

QOLCOM

EH20

Contact	Heidi Rollett, Account Director
Email	hrollett@qolcom.co.uk
Telephone	01635 297450

Qolcom is one of the UK's leading integration specialists providing secure Wi-Fi networks and Mobile Device Management solutions using best in breed products including; Juniper Networks and MobileIron.

Juniper Networks is in the business of network innovation delivering the software, silicon and systems that transform the experience and economics of networking.

MobileIron provides IT and users real-time intelligence and control over smart device content, activity, and apps in order to secure and manage both Corporate and Personally owned mobile smart devices on one solution for all form factors and OS's.

SSE TELECOMS   F5

www.ssetelecoms.com

Contact   Katie Ireland, Marketing Manager (Telecoms)

Email   katie.ireland@sse.com

Telephone   01189 534751

SSE Telecoms owns and operates one of the largest telecoms and data centre networks spanning the entire UK. We specialise in the provision of high capacity Ethernet, managed wavelengths, managed fibre and co-location services for service providers whose businesses depend upon the availability and performance of their cloud, IT and network services.

With an extensive portfolio of Layer 2 connectivity and a flexible approach to network configuration, we react efficiently to customer requests, providing prompt responses to quotations, delivery schedules and quick, live provision of services.

STUDENTCOM   EH25

www.cablecomnetworking.co.uk

Contact   Clare Trigg, Sales and Marketing Co-ordinator

Email   info@cablecomnetworking.co.uk

Telephone   01275 793400

EXHIBITION

StudentCom is recognised as the leading provider of Digital Media Services to student accommodation in the UK, reaching in excess of 200,000 students across more than 500 sites.

With services ranging from fibre fast broadband, Wi-Fi and Student TV, through to an online fault reporting service and an effective Noticeboard application, StudentCom can help your accommodation stand out and deliver a first class experience for your students.

TRIPLECOMM LTD   EH37

www.triplecomm.co.uk

Contact	Chris Plastiras, Managing Director
Email	info@triplecomm.co.uk
Telephone	02083 608555

Triplecomm was formed in February 1991 and has been involved in the field of IT networking technologies since that time. Since 2002 we have been providing network monitoring solutions to academic, public, private and financial enterprises.

Statseeker: A highly scalable network infrastructure monitoring tool delivering unlimited SNMP monitoring of Network Interfaces, NBAR, IP SLA, Traps, CPU, Memory, Temperature, Printers, UPS, etc

Scrutinizer: Flow Analytics™ brings sFlow, IPFIX and NetFlow.Providing threat detection and advanced reporting for network and application traffic analysis across physical and virtual network infrastructures.

EXHIBITION

UCISA

EH28

www.ucisa.ac.uk

Contact	Sue Fells
Email	admin@ucisa.ac.uk
Telephone	01865 283425

UCISA is the Universities and Colleges Information Systems Association, the key membership organisation representing those responsible for delivering information systems and technology services in universities, colleges and related institutions.

- Events – running a wide range accommodating all levels of staff

- Response – sector wide response to consultations on law and strategy

- Best practice – promoting best practice through events, publications and awards

- Information – providing knowledge allowing members to tackle issues within their institutions

- Latest technology – providing news of leading edge developments and their application

- Group activities – running specialist groups bringing expertise to the field

- Networking – developing a wider network of contacts

- The wider picture – informing about sector wide issues

- Stimulating ideas – good ideas, best practice

#nws41

EXHIBITION

VIRGIN MEDIA BUSINESS

www.virginmediabusiness.co.uk

Contact	Nick Ruddick
Email	nick.ruddick@virginmedia.co.uk
Telephone	01256 752000 / 01183 762275 / 07774 657738

Virgin Media Business has the UK's only nationwide fibre optic network. Already able to reach 85 per cent of businesses in the UK, Virgin Media Business has the ability to connect to all organisations. The largest business-to-business brand in the Virgin group, it prides itself on delivering innovative, high quality solutions that breakdown the barriers facing UK businesses today.

Staff are located at 40 offices across the country, meaning that Virgin Media Business really is closer to its customers. Organisations working with Virgin Media Business include Cambridgeshire County Council; Hampshire and Isle of Wight Partnership; Warrington Collegiate and City University.

ACKNOWLEDGEMENTS

Our thanks to the following companies who have supported Networkshop41 through sponsorship.

Ciena

For sponsorship of the delegate bags

www.ciena.com

HellermannTyton

For providing the Lanyards

www.htdata.co.uk

Easynet Ltd

For sponsorship of the Exhibitor Drinks Reception

www.easynet.com

Imtech ICT Ltd

For providing an insert in the delegate bag

www.imtech.com/EN/ICTUK

Data Integration

For sponsorship of the Conference Dinner Drinks Reception

www.dataintegration.com

Opengear

For providing an insert in the delegate bag

www.opengear.com/uk/

THANK YOU!

JANET®

Janet® is government funded, with the primary aim of providing and developing a network infrastructure and services that meet the needs of the UK research and education communities. The Janet network is managed by Jisc Collections and Janet Limited, a part of the Jisc group. Janet manages the operation and development of the Janet network and related services on behalf of Jisc.

Jisc is the UK's expert on digital technology for education and research. Its work is guided by its funders, owners (AoC, GuildHE and UUK) and its trustees.

For further information please contact:

Janet Service Desk
Janet®
Lumen House, Library Avenue
Harwell Oxford, Didcot
Oxfordshire, OX11 0SG

Tel: +44 (0) 1235 822200
Fax: +44 (0) 1235 822399
Email: service@ja.net

NETWORKSHOP 42

AT LEEDS UNIVERSITY
1–3 APRIL 2014

Join us at Networkshop42, which will be held at the **University of Leeds from 1 – 3 April 2014.**

Make sure you put the date in your diary and we look forward to welcoming you at Networkshop42

Shirley Wood
Head of Customer
Engagement and Support
Janet

Rhys Davies
Director of Information Technology
University of Leeds

UNIVERSITY OF LEEDS

SAVE THE DATE

NETWORKSHOP 41
AT KEELE UNIVERSITY

THANK YOU

Keele University

NETWORKSHOP 41
AT KEELE UNIVERSITY