



**3rd Annual  
Wireless Broadband Forum  
16 - 17 November 2004  
Hinxton Hall Conference Centre,  
Cambridge, UK**



[www.wirelessbroadbandforum.co.uk](http://www.wirelessbroadbandforum.co.uk)

**THE VENUE**

The Wellcome Trust Hinxton Hall Conference Centre is an outstanding venue, offering world-class conference facilities in a delightful rural setting, within easy reach of Cambridge, the M11 and London Stansted Airport.

Set in the Wellcome Trust Genome Campus, home to some of the world's leading genetics and bioinformatics research institutes, Hinxton Hall is an elegant Grade II\*-listed country house set in 55 acres of parkland on the banks of the river Cam. Since the Wellcome Trust took over the site in 1992, the house and estate have been tastefully renovated and adapted for their current purpose.

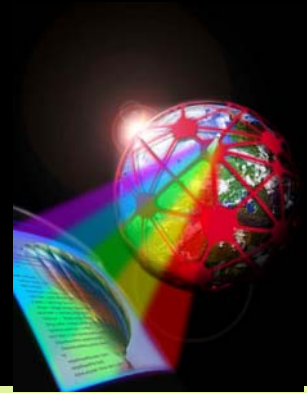
The conference rooms boast natural light and views of the grounds. They include a purpose-built 300-seat auditorium, a second lecture room seating 60, and the cloisters, once part of the stables and now a first-class exhibition space.



Monday 15 November	Pre-Forum Wireless Workshop	<i>Industry Workshop(s)</i> TBA 17.00 - 19.00 WiMAX Forum Meeting <i>(free to all delegates, WiMAX)</i>	
Tuesday 16 November	Management Forum	Design Forum Day 1	EXHIBITION
Wednesday 17 November	Research Forum	Design Forum Day 2	
Thursday 18 November	Post-Forum VoW-LAN, VoWiFi Workshop	<i>Industry Workshop(s)</i> TBA	



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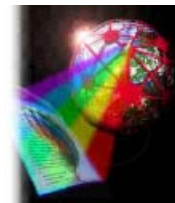
## Exhibitor List (Provisional)

- Alvarion (Platinum Sponsor)
- Aperto Networks (Silver Sponsor)
- Sinon
- Aphenia
- Plextek
- ISIMM
- WIGWAM Consortium
- WiLAN
- Fujitsu
- OFCOM Spectrum Efficiency Research Corner:
  1. Culham Electromagnetics and Lightning  
Arup Communications  
University of Warwick  
National Physical Laboratory
  2. QinetiQ  
University College London, University of Bath  
Rutherford Appleton Laboratory
  3. BAE Systems Limited
  4. National Physical Laboratory  
University of Warwick
  5. Antenova Ltd, Orange Ltd  
Queen Mary, University of London
  6. York EMC Services Ltd  
University of Bristol. University of York  
BT Exact Technologies  
Toshiba Research Europe Limited
  7. Rutherford Appleton Laboratory  
University of Manchester, Cardiff University  
Discrete Time Communications, Satconsult Ltd
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## DRAFT ADVANCE PROGRAMME

**Day 1: Tuesday 16 November**

**09.00 Conference Chairman's Opening Remarks**

**Stephen Lowe**, Chairman Broadband Wireless Association,  
Member OFCOM Spectrum Advisory Board, OSAB

**Keynote Address to both Management and Design Streams**

**09.15 To be announced**

**09.45 COFFEE**

### MANAGEMENT FORUM

**Chair: Stephen Lowe**, Chairman Broadband Wireless Association,  
Member OFCOM Spectrum Advisory Board, OSAB

10.15 **BWA in community networks - providing equal access for all? (Operator case study)**  
*Ulf Lindalv*

*Kungsbacka Sweden*

10.45 **Making Broadband Happen in Wales - the challenges and solutions**  
*Micheal Eaton*

*Director, Broadband Wales Unit, Welsh Assembly Government*

11.15 **Radio broadband (Operator case study)**

*BT Radio Broadband*

11.45 **Broadband Content – future services and band width requirements**

12.15 **Wireless Broadband Market Growth – Regional and Worldwide**

*Richard Dineen*  
*Research Director, Ovum*

**12.45 LUNCH**

14.00 **4G - the next generation Broadband Wireless Access (BWA) proposal - What is it?, Why the Need?, Services, A successful competitor to UMTS FDD**

*Martin Varsavsky, Founder and Director, FON. Operator Spain*

14.30 **European Research Programmes – Update on current and future European Activities**

*Francisco Guirao, European Commission, Brussels*

15.00 **Wireless Local Loop Network: a 'bridge' to the future**

*Massimo Cacciavillani, Fabrizio Angilè*  
*Telecom Italia Mobile*

**15.30 COFFEE**

### DESIGN FORUM – Day 1

**Chair: Liam Devlin**, Plextek

10.15 **Challenging the rules of microwave PA design**

*Steve Cripps,*  
*Hywave Associates*

10.45 **RFICs for ultrawideband systems**

*Michael McCullagh,*  
*RF Integration*

11.15 **MMIC and component design for wireless broadband access**

*Andy Dearn,*  
*Plextek*

11.45 **Designing microwave radios for future network requirements**

12.15 **Optimising the design of broadband components speaker to be agreed**

*Ansoft*

**12.45 LUNCH**

14.00 **Designing for Deployment WiLAN/Fujitsu**

14.30 **Innovative techniques for testing UWB frequency response**

*Agilent Technologies*

15.00 **Speeding up the measurement of WLAN systems**

**15.30 COFFEE**

**16.00 WiMAX: The Future of Broadband Wireless Access is Here Today**

*Carlton O'Neal, VP Marketing, Alvarion*

**16:30 Wireless Security – Identifying and addressing the issues for wireless networks**

*John Denny Managing Director, Tim Hurman, Pentest*

*Presentation and live demonstration to both management and design streams*

**17:15 Chairman's closing remarks**

**17:30 Close of Day 1**

## Day 2: Wednesday 17 November

Chair: Lauriston Hardin, Chairman Hardin Associates, USA

### Keynote Addresses

- 09.00** Title to be announced  
*Sayed-Amr (Sisso) El-Hamamsy, President and CEO, Wi-LAN*
- 09.30** The role of regulation in stimulating the broadband fixed wireless market  
*Professor William Webb, Director R&D OFCOM*

**10.00 COFFEE**

### DESIGN FORUM – Day 2

Chair: Lauriston Hardin, Chairman Hardin Associates, USA

- 10.30** Operator Case Study
- 11.00** Delivering voice over Wireless Local Area Networks – the challenges, opportunities and solutions  
*Andrea Vocale, Business Development Manager, Cisco*
- 11.30** Proven Economic Business Cases for Broadband Fixed Wireless Access Carriers.  
*Alan Menezes VP Marketing, Aperto Networks*
- 12.00** Broadband Software Defined Radio  
*Operator, Presentation to be announced*
- 12.30** LUNCH
- 14.00** Legal Issues Within the Broadband Wireless Market  
*Tony Ballard, Director Field Fisher Waterhouse*
- 14.30** Ultrawideband communications for 480Mbps Wireless USB  
*Mark Bowles, Founder, Vice President of Business Development and Marketing Staccato Communications*
- 15.00** Network planning and regulation: new paradigms to address a new FWA age  
*John Berry, Managing Director ADTI*
- 15.30** COFFEE
- 16.00** UMTS TDD- a new solution for optimal service delivery to the residential and enterprise market  
*An operator/vendor case study IP Wireless*
- 16.30** WIGWAM - A wireless gigabit system with advanced multimedia support  
*Prof. Gerhard Fettweis, Vodafone Chair Mobile Communications Systems, Dresden University of Technology (WIGWAM Consortium members: Alcatel, Nokia DaimlerChrysler, IHP, Infineon Technologies, MEDAV, , Philips, Siemens, Telefunken RACOMS, University of Dresden)*
- 17.00** Conference close

### RESEARCH FORUM

Chair: Steve Cripps, Founder, Hywave Associates

- 10:30** Presentations from the Spectrum Efficiency Research Program
- The Cambridge Broadband Wireless Trial**  
*Dr. Martin Brown, Cotares*
- The Efficient Use of BFWA**  
*Dr. Mike Willis, Rutherford Appleton Laboratory*
- Frequency Selective Surface Screens for Enhancing WLAN Capacity**  
*Dr. Kevin Ward, Culham Electromagnetics and Lightning*
- 12.30** LUNCH
- Techniques for Improving Radar Spectrum Utilisation**  
*Dr Stephen Harman, QinetiQ*
- Use of FSS to selectively control propagation into, out and through buildings**  
*Martin Shelley, ERA Technology*
- 16.00** Channel Soundings in the 2GHz to 6GHz Frequency Bands  
*Stuart Feeney, University of Durham*

*Other individual research papers currently under adjudication for forum acceptance.  
Titles will be advised shortly*

**17.00** Conference Close

The Annual Conference of the Broadband Wireless Association



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Technical co-sponsor:



UKRI (MTT/ED/AP/LEO)

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Silver Sponsor

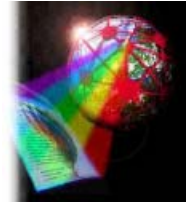


Organised by:





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## Pre-Forum Wireless Workshop

Monday 15 November 2004

Establishing and Operating  
 Broadband wireless Networks

*Focused towards new and existing operators/builders of Broadband Wireless Networks*

10:00	<b>Registration and coffee</b>	
10:30	<ul style="list-style-type: none"> <li>• <b>Introduction and Wireless Overview</b> <ul style="list-style-type: none"> <li>○ <i>Format of the day and structure</i></li> <li>○ <i>Technical definitions</i></li> <li>○ <i>Current Market Status</i></li> </ul> </li> </ul>	<b>Stephen Lowe</b> <b>Workshop Leader</b> <i>Chairman Broadband Wireless Association</i>
11:00	<ul style="list-style-type: none"> <li>• <b>Frequency for Commercial Network Operation</b> <ul style="list-style-type: none"> <li>○ <i>Available licensed and unlicensed bands for operation</i></li> <li>○ <i>Ongoing possible new spectrum releases</i></li> <li>○ <i>Licensed Vs unlicensed band – considerations</i></li> </ul> </li> </ul>	
11:30	<ul style="list-style-type: none"> <li>• <b>Types of equipment and Key considerations</b> <ul style="list-style-type: none"> <li>○ <i>Frequency of operation</i></li> <li>○ <i>Impact of service delivery on equipment decision</i></li> <li>○ <i>Geographic coverage areas</i></li> <li>○ <i>Network growth</i></li> <li>○ <i>Antenna options and considerations</i></li> <li>○ <i>Cable options and guidelines.</i></li> <li>○ <i>Optimal trade offs in equipment decisions</i></li> </ul> </li> </ul>	
12:30	<b>Lunch</b>	
1:30	<ul style="list-style-type: none"> <li>• <b>Planning for a broadband radio roll out</b> <ul style="list-style-type: none"> <li>○ <i>Business planning</i></li> <li>○ <i>Green field and Urban Sites</i></li> <li>○ <i>Extension to existing network</i></li> <li>○ <i>Network Backhaul - Rural and Urban, Wired and Wireless</i></li> <li>○ <i>Services</i></li> </ul> </li> </ul>	
2:30	<ul style="list-style-type: none"> <li>• <b>Legalities of operating a wireless service</b> <ul style="list-style-type: none"> <li>○ <i>Setting up and operating a wireless ISP</i></li> <li>○ <i>Establishing a Rural Community network.</i></li> <li>○ <i>Power requirements and limits within different possible commercial frequencies.</i></li> </ul> </li> </ul>	
3:15	<b>Coffee</b>	
3:45	<ul style="list-style-type: none"> <li>• <b>Operating a wireless network</b> <ul style="list-style-type: none"> <li>○ <i>Security and content obligations</i></li> <li>○ <i>Authentication of customers, billing</i></li> <li>○ <i>Ongoing Interference management.</i></li> </ul> </li> </ul>	
4:30	<ul style="list-style-type: none"> <li>• <b>Chairman's panel</b> <ul style="list-style-type: none"> <li>○ <i>Question and answer session on the days topics</i></li> </ul> </li> </ul>	
5:00pm	<b>Workshop Close</b>	

This is a technical and business workshop, geared to Wireless ISPs, ISPs, Operators, and Engineers.

**Workshop  
 Sponsors**

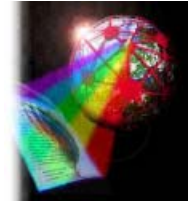
*To Be Announced*





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# Post-Forum VoWLAN and VoWiFi Workshop

Thursday 18 November 2004

Realising Voice over Broadband Wireless Networks

*Focused towards new and existing operators/builders of Broadband Wireless Networks*

9:00	Registration and coffee	
9:30 – 12:30	<p>Workshop</p> <p>This workshop is aimed at delivering what you need to know to get voice over WiFi and WLAN networks.</p> <p>Topics covered.</p> <ul style="list-style-type: none"><li>o The whole network chain and equipment consideration.</li><li>o Putting a system together. examples</li><li>o Revenue Generation, Billing and control options</li><li>o Quality of service expectations</li><li>o Limitations and future evolvement of Voice over WiFi and Voice over WiLAN solutions</li><li>o Summary – making it happen</li><li>o Question and Answer Sessions</li></ul>	
12:30	Close of Work Shop	

This is a technical and business workshop, geared to Wireless ISPs, ISPs, Operators, and Engineers.

**Workshop  
Sponsors**

*To Be Announced*

