IIR Telecoms & Technology presents the Third Global Summit

Endorsed by the Bluetooth SIG

Bluetooth™
OFFICIALLY ENDORSED BY
THE BLUETOOTH SPECIAL INTEREST GROUP

Bluetooth³

Geneva

www.iir-bluetooth.com

30th October - 3rd November 2000
The Intercontinental, Geneva

Migrating Bluetooth from a development community technology to delivering real Bluetooth-enabled products

- Surveying the current status and future direction of the technology
- Maximising Bluetooth opportunities in Europe, the USA and Japan
- Evaluating how to evangelise and sell Bluetooth into the market
- Building the Personal Area Network with Bluetooth
- Tracking product launches and the new alliances taking place
- Monitoring silicon development
- Evaluating advances in interoperability
- Preparing for specification 2.0 and beyond

Attracted 300+ delegates from 25 countries at Bluetooth2 event - a superb gathering of Bluetooth community decision makers

Pre Conference Briefings, 30th October 2000:
- **Bluetooth Primer: An Introduction to Bluetooth**
- **Meet the SIG**
- **Unofficial UnPlugfest**

Post Conference Briefings, 2nd November 2000:
- **Getting Bluetooth Products Tested And Qualified On The Route To Market**
- **Ericsson Bluetooth Solutions**

Post Conference Forum, 3rd November 2000
- **Bluetooth Developers Day**

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POWERING THE MOBILE INTERNET™

Bluetooth 3

12 Reasons Why You Need To Be At This Event

1. Learn how best to position yourself to capitalise on the gargantuan growth within the Bluetooth community

2. Tap into Ericsson at their Bluetooth Solutions afternoon seminar

3. Enjoy the unique opportunity to question and debate with the SIG at the 'Meet the SIG' briefing

4. Fantastic networking opportunities with all the established and emerging Bluetooth key players

5. Implement the 1.0 specification and look forward to specification 2.0 the 'Killer'

6. Forecast the 'killer' applications that will kick-start mass market Bluetooth adoption

7. Discover how to select the optimum silicon provider for your Bluetooth requirements

8. Utilise the Testing and Qualification briefing to enhance the time-to-market of your Bluetooth products

9. Fantastic opportunity to test interoperability for Bluetooth developers at the Unofficial UnPlugfest

10. Ascertain how to evangelise and sell Bluetooth into the consumer market

11. Discover how to harness the potential of Bluetooth Access Points from award winning company; Red-M

12. Clarify the Bluetooth PAN vision where devices are able to communicate easily with each other and with the Internet

reasons for attending

In April this year, over 300 people from 25 countries witnessed a remarkable event – a Bluetooth conference which was structured to enable insights into real user scenarios with the added bonus that it was of the size where everyone could network with everyone else over the course of the 4 day event. Now is a good time to examine what has been taking place in the Bluetooth community since April and why IIR's Bluetooth3 event in Geneva this October is so well timed to address the key issues which are shaping the Bluetooth marketplace.

From launch announcements to real products

The time has come when Bluetooth has to deliver within set timeframes.

It is quite clear that Bluetooth has reached a watershed. Launch announcements have been made, silicon is in production and Bluetooth enabled products are becoming a reality. The Bluetooth publicity machine has been such that consumers are expecting to be able to buy and use Bluetooth within a frighteningly short period of time. Bluetooth has to move on from a development community technology to technology within real products. The Bluetooth3 Geneva programme has a host of sessions focused on tracking Bluetooth development, launching Bluetooth products into the market and following the Bluetooth product roadmap. Examine this Bluetooth roadmap as implementation into a plethora of office, mobile and domestic devices gets underway.
See Bluetooth in Devices Tracks on the 31st October and 1st November

The lexicon of investment buzzwords has a new entry: Bluetooth

It is not easy for shareholders to invest in Bluetooth. As it is an open standard, no company benefits from licensing revenues. And most of the companies exploiting Bluetooth technology are either too big for it to show up in their revenues for several years, or privately held. However, the big opportunity is in making Bluetooth chips. Given the barriers to entry, the company that wins the Bluetooth chip race will make healthy profits out of it. If investors are looking at Bluetooth that's because the silicon providers are getting ready to position themselves to exploit the Bluetooth phenomenon. How is Bluetooth impacting upon silicon providers and what is the current state of chip availability?
See Bluetooth and the Silicon Market Track on Thursday 2nd November .

Positioning Bluetooth amongst other wireless technologies

The debates over the key Bluetooth challenges of interference and security are continuing to grow in earnest. These issues are a thorn in the side of Bluetooth's global acceptance and receive frequent press coverage. Are the security features of Bluetooth sufficient to maintain privacy and support transaction based applications? As a potential user of Bluetooth technology how can you manage the interference and degradation concerns that emerge when Bluetooth operates with other wireless technologies in the 2.45 GHz band? As a Bluetooth promoter, what are you doing to limit interference issues and prevent interference difficulties delaying Bluetooth product implementation and adoption? Where can you find real answers to the debate on the real status of interference difficulties and security concerns?
see Interference and Security Issues Track, Wednesday 1st November

Implementing the Bluetooth specification

Manufacturers are scrambling to incorporate Bluetooth transceivers into their portables, but with a new standard there is no experience base to draw upon when starting a design. In many cases, adding Bluetooth capability to a portable product will be an engineer's first venture into RF systems design.

Bluetooth3 Geneva runs a Developers Day Forum where you are ideally placed to capitalise on the opportunity to network with the experts as they show you how to implement the Bluetooth technology for use in the mobile and business market segments.
See Developers Day Forum, Friday 3rd November.

From cable replacement to ad-hoc networking, device synchronisation and the PAN Bluetooth vision...

Originally developed as a means of connecting mobile phones to accessories without wires, Bluetooth technology is expanding rapidly into new applications.

Bluetooth3 Geneva recognises that the Bluetooth community is at the forefront of an enormous change - Bluetooth will revolutionise the electronic and communications device market as all devices can become connected to each other and to the Internet. Therefore we have tailored sessions to give you the tools to clarify the potential of Bluetooth Access Points and build the PAN vision with Bluetooth .
see Plenary Session, Wednesday 1st November.

From products to services

Winners in the Bluetooth community will emphasise applications. It is crucial for vendors to concentrate on selling applications and solutions, and not a technology to end-users. Because Bluetooth is not a new product but an added benefit to already existing products it must be marketed that way. Bluetooth3 Geneva Forum has a host of sessions focused on the different application industries, including mobile phones, PCs, automotives and consumer electronics. By evaluating trends and by presenting expert forecasts our Application Tracks offer a privileged view of the future of the Bluetooth market.
See Applications Tracks, Tuesday 31st October.

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Your chance to network with an unparalleled speaker line-up

- Werner Hoffman, Key Account Manager, **aeromeTouch**
- Ken Steck, Director, Wireless Embedded Systems Lab, **AnyWhereYouGo.com**
- George Milne, **ARM**
- Richard Duffy, Principal Analyst, **ARC Group**
- Richard Barber, Group Technical Advisor, **Articon-Integralis AG**
- Staffan Alexius, Manager, Sales & Marketing Wireless Development, **AU Systems**
- Franck Tricot, Founder, **bioDeo Ltd**
- Yuval Ben-Ze'ev, President & CEO, **Brightcom Technologies**
- Scott Bibaud, Director - Marketing, **Broadcom**
- Michael Barkway, **Cadence Design Systems**
- Joyce Putscher, Director, Consumer & Converging Markets & Technologies Group, **Cahners In-Stat**
- Mark Lambert, Business Development Manager, **Cambridge Consultants**
- Vicky Lamour, Software Engineer, **Cambridge Consultants**
- Matthew Phillips, Marketing Manager, **Cambridge Silicon Radio**
- Joe Mendolia, VP, **Computer Access Technologies (CATC)**
- Cyriel Theys, Expert in Regulatory Affairs, **Cetecom**
- Rafael Garcia, Bluetooth Test Systems Product Manager, **Cetecom**
- Daniel Brooks, Technical Marketing, Advanced Technologies Engineering, **Clarion Europa**
- Kevin Gagnon, Snr Business Development Manager, **Compaq**
- Mike O'Neill, Division Director, Marketing, **Conexant Systems**
- Cedric Paillard, Product Manager - Bluetooth, **Conexant Systems**
- Anders Edlund, Marketing Director, **Ericsson**
- Mads Bo, Sales Manager - Bluetooth Licensing, **Ericsson**
- Torbjorn Grahm, Development Manager - Bluetooth Baseband, **Ericsson**
- Jeff Robertson, Key Account Manager - Bluetooth Licensing. **Ericsson**
- Jerome Pesant, Innovation Manager, **Ericsson Canada**
- Jan ten Sythoff, Wireless Programme Manager, **Frost & Sullivan**
- Bengt Skarstam, Technical Director, **GigaAnt**
- Kevin Marquess, **Hyper Corporation**
- Brent Miller, Senior Software Engineer, **IBM**
- Jill House, **IDC**
- Randy Giusto, Director, Mobile & Display Research, **IDC**
- Vince Holton, Editor, **Incisor**
- Ivar Johansson, Marketing Director, Cordless Systems, **Infineon Technologies**
- Paul Kan, Bluetooth Stategic Marketing Manager, Program Manager, Bluetooth SIG, **Lucent Technologies**
- Jim Lansford, **Mobilian Corporation**
- Michel Eftimakis, Bluetooth Systems Engineer, **NewLogic**
- Holger Hussmann, **Nokia**
- Jukka Parkkinen, Product Manager, **Nokia**
- Bob Tait, Business Development Manager Bluetooth, **Parthus Technologies**
- Gerhard Heider, Sector Manager Connectivity, **Philips Semiconductors**
- Francisco Ferrer, **Philips Semiconductors**
- Lionel Wolovitz, Chief Technology Officer, **Psion**
- Simon Gawne, VP of Marketing & Business Development, **Red-M**
- Amit Yaffe, VP Business Development, Marketing & Sales, **Regisoft**
- Carsten Kuhfuss, New Technologies, **7 Layers AG**
- Hans Mollenhauer, VP Business Development, Bluetooth Solutions, **Siemens**
- Louis Kinsella, Business Development Manager, **Silicon & Software Systems**
- Dave Lyon, Chairman & CEO, **Silicon Wave**
- Tim Reilly, Chief Technology Officer, **Stonestreet One**
- Jon Asahina, VP of Marketing & Chief Information Officer, **Troy XCD**
- Jennifer Bray, Bluetooth Software Programme Manager, **TTP Communications**
- Charles Sturman, Bluetooth Silicon Programme Manager, **TTP Communications**
- Andreas Malzach, Director, Business Development and General Manager of European Affairs, **Widcomm**

Bluetooth 3

programme at a glance

	AM		PM	
Monday 30th October	The Bluetooth Primer: An Introduction to Bluetooth		Meet The SIG Briefing	
	Unofficial UNPLUGFEST			
Tuesday 31st October	Conference Plenary Sessions		Track A Bluetooth in Applications	Track B Bluetooth In Devices
Wednesday 1st November	Track A Interference & Security Issues	Track B Bluetooth In Devices	Conference Plenary Sessions	
Thursday 2nd November	Bluetooth & The Silicon Market		Testing & Qualification Briefing	Ericsson Bluetooth Solutions Briefing
Friday 3rd November	Developers Day Forum			

Unique Opportunity

Unofficial UnPlugfest
Day of Interoperability Testing
Monday 30th October

Furthering the goal to achieve complete interoperability between different manufacturers' Bluetooth products, Computer Access Technologies (CATC) in conjunction with IIR's Bluetooth3 Geneva are hosting an **Unofficial UnPlugfest day of testing.**

In order for the SIG and developers to ensure that Bluetooth guidelines are being followed and that consumers are assured of having a good 'out of box experience' resulting from complete interoperability between products, this day of testing will enable Bluetooth developers to test interoperability at two levels:

- Level 1; Baseband   - Level 2; L2CAP

If you are an engineer developing Bluetooth components, or have a unique implementation then this condensed, unofficial version of an UnPlugfest is a prime opportunity for you to test interoperability in completely private surroundings at Bluetooth3 Geneva.

To secure your place at the Unofficial UnPlugfest book now on +44 (0) 20 7915 5055 quoting reference CB0345n or use the Booking Form at the back of this brochure.

The Bluetooth Primer: An Introduction To Bluetooth

**Pre-Conference Briefing
Monday 30th October 2000 am**

Led by experts from TTP Communications, this half day session is designed as a Bluetooth masterclass for those who are evaluating the potential of Bluetooth and need to deepen their understanding of the technology. The material presented can be used as an introduction, refresher or recap.

This briefing will run from 9.00am to 12.30pm with a break for morning coffee and will be followed by lunch.

8.30   Registration & Coffee

9.00   **Introduction & Welcome**

Session One: **Overview and objectives of Bluetooth**

Session Two: **The Bluetooth Protocol Stack layer by layer**
- Radio
- Baseband
- Channel Control
- Link Manager
- Security
- Host Controller Interface
- L2CAP
- SDP

Session Three: **Profiles and applications**

Session Four: **The market for Bluetooth**

Your Briefing Leader

Jennifer Bray is managing TTP Communications' Bluetooth baseband software development. Jennifer has a Bachelors in Physics with Microcomputer Electronics, a Masters in Satellite Communciations Engineering, and a doctorate in the field of wireless communications. More recently Jennifer gained a distinction in the Open University's Management of Technology course. Jennifer has 9 years experience in communications product development having worked on Nortel and 3Com's first ATM systems, as well as wireless ATM, the first secure ehternet repeater, ADSL to ATM gateways, CDMA, GSM, and of course, Bluetooth. With Charles Sturman Jennifer wrote "Bluetooth Connect Without Cables" a text on Bluetooth being published by Prentice Hall.

About TTP Communications

TTPCom is one of the world's most successful independent suppliers of GSM technology. Its products are used in over 30 Type Approved GSM terminals which are manufactured throughout the world. TTPCom is working continuously to develop solutions that meet the ever-changing needs of wireless networks. Latest products include a multi-slot GPRS protocol stack, EDGE modem, and a Bluetooth baseband solution. The first component of our UMTS programme includes a dual-mode 3GPP/GSM protocol stack.

Meet The SIG

**Pre-Conference Briefing
Monday 30th October 2000 pm**

Led by Lucent Technologies and Ericsson, this afternoon briefing enables you to approach and closely question the Bluetooth Special Interest Group. Bluetooth3 Geneva offers a unique one-off opportunity for you to listen to key discussion from the SIG and then question them directly in an informal and interactive environment.

This briefing will run from 2.00pm until 5.30pm with a break for afternoon tea.

1.30   Registration & Coffee

2.00   **Introduction & Welcome**

Session One: **SIG Organisation Structure**

Session Two: **Review of the SIG Working Groups**

Session Three: **SIG Progress**

Session Four:
- **Bluetooth Qualification**
- **Enhancing Bluetooth Co-existence**
- **Clarifying the Development of the 2.0 Specification**

Your Briefing Leaders

Paul Kan, Strategic Marketing, Lucent Corp. SIG Representative
Paul joined Lucent in 1993 and has responsibility for Bluetooth marketing world-wide. Paul is part of the leadership team that drove Lucent Technologies, Microelectronics into the GSM market place, Sceptre Chip Set, GSM Reference Design, acquisition of Optimay - all of the above needing strategy documents and business case justification. More recently, Paul negotiated Lucent into a position of strength within the Bluetooth Special Interest Group (SIG), negotiated a license agreement with Bluetooth leaders, convinced the Lucent Technologies Microelectronics Group to prioritise their businesses, and place Bluetooth higher than others - giving it more resources and more investment.

Anders Edlund, Marketing Director, Bluetooth
Anders has a technical background with an electrical engineering degree and working experience in the fields of satellite communication and computing science. He has since acquired many years of experience within marketing and product management.

Anders is presently responsible for marketing within the Ericsson Bluetooth product unit. He also holds the position of marketing co-chair in the Bluetooth Special Interest Group.

www.iir-bluetooth.com

ENABLING EFFORTLES

Conference Day One
Tuesday 31st October 2000

Plenary Sessions

8.00 Registration & Coffee

8.45 Welcome Address,
Elizabeth James, IIR Telecoms

8.50 Chair's Welcome Address & Opening Remarks

8.55 How Is The Bluetooth Special Interest Promoter Group Driving Bluetooth Development And Market Adoption?
- Outlining the global objectives of the Promoter Group and detailing its plans to drive the European Bluetooth market forward
- Examining the skills and competencies that each promoter company brings to the Group
- How has the addition of four new promoter companies strengthened the Group and helped to drive Bluetooth technology forward?
- Examining how the Group are tackling the key challenges of interoperability, Bluetooth promotion and branding
  - how will the SIG drive Bluetooth applications across multiple industries?
- What is the significance of the associate membership and are there plans for further membership tiers?
- How is the SIG handling the increasing size and diversity of its membership without compromising the open standard?
- Clarifying the objectives for the future direction of the Group
Anders Edlund, *Marketing Director-Bluetooth,* **ERICSSON**

9.35 Bluetooth Update: Evaluating The Current Status And Future Direction Of The Technology
- Analysing the current status of Bluetooth development - what key challenges remain?
- Examining the development of the 1.0 specification and growth towards the 2.0 specification and the impact on Bluetooth market adoption
- Examining the Bluetooth timeline and the forecasts for product roll-out
  - tracking development schedules; are they on target?
- Evaluating the future role of the Bluetooth Special Interest Group (SIG) in developing innovative, market-led Bluetooth applications and driving them into the marketplace
- Examining likely new application areas and determining in which market segments we will see Bluetooth early adopters
Holger Hussmann, **NOKIA**

10.15 Comparing The Bluetooth Opportunities In Europe And The USA
- Examining the differences in uptake of wireless services in Europe and the USA
- Understanding the drivers of Bluetooth in both markets
- Evaluating professional and consumer applications of Bluetooth - tracking examples of wireless services already available today
- Forecasting new service providers that will deliver Bluetooth applications
Simon Gawne, *VP of Marketing & Business Development,* **RED-M**

10.50 Morning Coffee

11.20 Advancing Bluetooth: Launching Bluetooth Products Into The Market
- Tracking Bluetooth development five months on from the Bluetooth Congress in Monte Carlo, examining: - product launches - silicon developments - advances in interoperability
  - new alliances/partnerships
- The year 2000 is when the Bluetooth technology really takes off - Examining how Bluetooth has advanced in 2000 and forecasting what we can expect to see in 2001
- Tracking the launch announcements: what Bluetooth devices are

actually in the marketplace now?
- What will be the main applications for Bluetooth? Is there a 'killer application' that will drive sales volumes and reduce silicon costs?
- Monitoring the recent alliances and acquisitions emerging to create an early market presence
  - Examining how the different players are positioning themselves as they launch/prepare to launch products into the market
- Presenting the statistics from UnPlugfest August 2000: what are they revealing in terms of Bluetooth interoperability?
Richard Duffy, *Principal Analyst,* **ARC GROUP**

12.00 Assessing The Development And Impact Of The 1.0 Specification And Looking Forward To Specification 2.0
- Detailing the ongoing development of the 1.0 specification towards building a robust customer proposition -examining the interoperability features enabled by the 1.0 specification
  - evaluating the Bluetooth software stack as defined in the 1.0 specification and how it enables Bluetooth usage scenarios
- Next generation Bluetooth: How will the 1.0 specification evolve to 2.0 and with what impact on devices and applications?
  - which profiles and new features will be supported?
  - how will performance be improved?
  - how will networking be enabled?
  - how will service discovery be enhanced?
- Examining the compatibility challenges between specification 1.0 and 2.0: How effectively will the 2.0 specification support backwards compatibility?
- Looking to the future: Forecasting timescales for the completion of specification 2.0 and planning for specification 3.0
Brent Miller, *Senior Software Engineer,* **IBM**

12.40 End of Plenary & Closing Remarks

Lunch

STREAM A
Bluetooth in Applications

2.00 Chair's Welcome Address & Opening Remarks

2.05 Examining The Opportunities For A Bluetooth Applications And Solutions Provider
- Identifying the different processes required to create Bluetooth applications: - development strategy - test strategy   - certification process
- Clarifying the criteria to make complete solutions
  - meeting the market demands for Bluetooth prototypes, applications and turn key solutions
- Examining the role of the profiles and the opportuniteis they enable
  - evaluating the strengths and weaknesses of the profiles
  - following experiences from a development perspective - is there a need for more profiles?
- Forecasting what will be the 'killer applications'
- Providing a scenario of a Bluetooth enabled world - where are we today?
- Demonstration of applications and prototypes
Staffan Alexius, *Strategic Business Development Manager*
AU SYSTEM MOBILE TECHNOLOGIES

Bluetooth and Mobile Commerce

2.35
- Examining the role of value-added services
  -additional revenue generation
  -customer loyalty
  - proactive vs reactive services
- Understanding how Bluetooth is a transaction enabler
  -using Bluetooth at the point-of-sale
  -convenience and timesaving wireless redemption
- Positioning Bluetooth in the value-added chain
- Exploiting Bluetooth as the go-between for the Internet and the real world
  -closing the loop of data sent to cellular devices and PDAs
  -Internet to brick and mortar - the missing link
Amit Yaffe, *VP Business Development, Marketing and Sales*
REGISOFT

RTLESS CONNECTIVITY

3.05 Examining Bluetooth Applications In e-Kiosks
- Analysing how Bluetooth applications make eKiosk services a common part of our lives
  - understanding how Bluetooth applications enable easy access to new media support and daily distribution of content
- Evaluating how strategic R&D synergies shorten time to market
  - identiying the necesary partnerships in order to bring the e-Newspaper wirelessly to your new devices
  - understanding the role of global standards in establishing Bluetooth applications for everyone
- Examining how eKiosk's are pushing the mass market for Bluetooth
  - PDAs using the eKiosk as docking station
  - eKiosks demonstrating how to use Bluetooth

Werner Hoffman, *Key Account Holder,* **AEROMETOUCH**

3.35 Afternoon Tea

Bluetooth in the Medical Industry

4.05 Bluetooth In Medical Devices And Instruments: Understanding The Possibilities And Key Challenges
- Reviewing healthcare systems conditions: understanding service needs and trends
- Identifying the 5 Ws for Bluetooth in medical devices and instruments
- Reviewing how Bluetooth meets demand for life dependent medical devices
  - security -availability -accuracy -reliability - mobility decontamination
- Understanding the primary Bluetooth technical issues
  -electromagnetic compatibility with medical devices/ instruments
  -co-existence of ISM based techonologies - piconet to meganet
- Identifying how the regulatory bodies are working to make Bluetooth an adopted technology in the medical domain

Jerome Pesant, *Innovation Manager,* **ERICSSON CANADA**

4.35 A Prescription For Success: Determining How Bluetooth Will Revolutionise The Healthcare Industry
- Reviewing the health industry today and Bluetooth's role within it
- Examining the bioDeo vision: Impact and business opportunities
- Ascertaining how Bluetooth and cellular networks fit into total health and well-being strategies
  - clarifying the key attributes of Bluetooth and mobile devices: portability, adaptability, low cost, low power, always on capability (with GPRS), worldwide availability
- Analysing the key technical and commercial issues which need to be resolved before Bluetooth becomes widespread in the health industry

Franck Tricot, *Founder,* **BIODEO LIMITED**

Bluetooth Within the Automotive Industry

5.05 Providing In-Vehicle Multimedia And Hands Free Functionality Using Bluetooth
- Tracking the future capability of Bluetooth for providing synchronisation between handheld devices and vehicle navigation and multimedia systems within the car
- Understanding how manufacturers are capitalising on Bluetooth to provide a hands-free system which any cell phone can connect with regardless of vendor and network provider
- What degree of co-operation is evolving between automotive manufacturers and Bluetooth vendors?

Daniel Brooks, *Tehnical Marketing - Advanced Technologies Engineering,* **CLARION EUROPA**

5.35 Close of Conference Day One & Chairs Closing Remarks

STREAM B
Bluetooth In Devices

Chair:**Vince Holton**, *Editor,* **INCISOR**

2.00 Chair's Welcome Address & Opening Remarks

2.05 Product Update: Outlining The Bluetooth Product Roadmap
- Examining the likely timescales for product roll-out for Bluetooth-enabled devices and predicting the future products that will be launched over the next 5 years
- Analysing the 1st, 2nd and 3rd waves of Bluetooth products
- Examining the challenges of initial device connectivity launches:
- Comparing the likely success of the different usage models on driving forward Bluetooth adoption:
  Jill House, IDC

Bluetooth In Cellular Handsets

2.35 Examining The Latest Bluetooth Developments In Cellular Handsets And Accessories
- Evaluating product implementation alternatives - is there a future for add-on modules?
- Comparing board level integration concepts
  - module on board - RF module - stand alone Ics
- Identifying the market segments and product categories for Bluetooth cellular handsets
- Evaluating the cellular accessories market
- Examining how the penetration rate in cellular handsets differs between Asia, Europe and North Amercia

Ivar Johansson, *Marketing Director,Cordless Systems* **INFINEON TECHNOLOGIES**

3.05 Maximising The Potential Of Bluetooth/WAP Integration For Mobile Internet Applications
- Determining the opportunities for joint WAP/Bluetooth development
- Examining how the Bluetooth/WAP combination enables access to both the Internet and Intranets over a Bluetooth connection from a multitude of personal devices
- Meeting the technical challenges of implementing WAP over Bluetooth
- How are vendors co-operating to advance WAP for use over Bluetooth?
- Demonstrating Bluetooth Internet connectivity
  Ken Steck, *Director, Wireless Embedded Systems Lab* **ANYWHEREYOUGO.COM**

3.35 Afternoon Tea

4.05 Examining The Bluetooth Potential For Mobile Operators: Revenue Source Or Revenue Drain?
- Examining how mobile operators are appropriately positioned to reap the benefits from Bluetooth technology
- Detailing how mobile operators can generate revenues though increased air time usage and the provision of value added services with Bluetooth
- Evaluating how mobile and fixed line operators are positioning themselves and competing in the Bluetooth value chain and building business strategies for their Bluetooth involvement
Speaker to be announced

4.35 Evaluating The Potential Of The Bluetooth Cordless Phone - An Appropriate Proposition?
- Detatiling the cordless phone market size, structure and drivers
- Assessing the suitability of Bluetooth technology for this particular market niche
- Understanding how Bluetooth will drive down the cost of the cordless phone over time
- Forecasting when a Bluetooth enabled cordless phone could enter the market

Mark Lambert, *Business Development Manager,* **CAMBRIDGE CONSULTANTS LTD**

5.05 Close of Conference Day One & Chairs Closing Remarks

DRINKS RECEPTION
Join the speakers and organisers at a drinks reception where you will be able to discuss the key issues of the day in a relaxed and informal environment.

www.iir-bluetooth.com

Conference Day Two
Wednesday 1st November 2000

STREAM A
Interference, Security & Antenna Issues

8.00 **Registration & Coffee**

9.00 **Chair's Welcome Address & Opening Remarks**

9.10 **Managing The Interference Challenges In The Densely Utilised 2.45Ghz Environment**
- Investigating the magnitude of the co-existence interference between Bluetooth and 802.11b
- Evaluating the different approaches to resolving the co-existence issue:
- Examining the pros & cons
  - standards activities (802.15.2)
  - regulatory activities (USFCC NPRM & rule 15.247)
  - how are regulatory bodies and different companies addressing interference
  - technology approaches
- Exploring the reality of simultaneous operation of Bluetooth and 802.11b in the same integrated chipset using TrueRadio™ technology

Jim Lansford,
MOBILIAN CORPORATION

9.50 **Resolving The Bluetooth Interference Conflict With Wireless LANs**
- Examining the potential for Bluetooth technology to coexist with both 2Mbps and 11Mbps Wireless LANs
- Tracking what can be done with frequency hopping to reduce the impact of interference
- Understanding how Bluetooth and Wireless LANs could be integrated in the same radio to eliminate the possibility of interference with signals from the same device
- Managing the impact of interference between these two wireless technologies to avoid having to select one technology over the other
- Examining the likelihood of Wireless LAN technology moving to the 5Ghz frequency spectrum to avoid interoperability issues

Jan ten Sythoff
Wireless Programme Manager
FROST & SULLIVAN

10.30 **Morning Coffee**

11.00 **Are The Security Features Of Bluetooth Sufficient To Maintain Privacy And Support Transaction Based Applications?**
- How secure is Bluetooth technology? Reviewing current Bluetooth security levels as defined by the specification
  - non-secure
  - service level security
  - link level security
  - how will Bluetooth-enabled devices provide the level of security companies are demanding?
- Understanding the security levels required for the first wave of Bluetooth applications and adopters
  - analysing the levels of privacy that individual applications and end-user types will require
- Examining how security issues differ between Bluetooth for the corporate market and for the domestic user
- Too much connectivity can be a bad thing: to what extent will increasing Bluetooth connectivity with multiple devices create a security nightmare for systems administrators?
- Building stronger encryption into Bluetooth enabled products at the software application level

- Examining the possibilities for wearable ID tag technology to enhance Bluetooth security mechanisms
- Establishing appropriate firewall technology to enhance Bluetooth security

Richard Barber
Group Technical Advisor
ARTICON - INTEGRALIS AG

11.40 **Optimising Antenna Functionality For Bluetooth Enabled Devices**
- Reviewing antenna-related challenges for Bluetooth products
- Optimising the antenna for multiple products and applications
  - understanding how many Bluetooth applications will require the antenna to work in multiple directions
- Examining form factors and material choices in Bluetooth antennas
- Examining the pros and cons in terms of cost, time-to-market and product type of embedding Bluetooth antennas or keeping them as outside fixings

Bengt Skarstam
Technical Director
GIGAANT

12.20 **Chair's Closing Remarks & Lunch**

Stream B
Bluetooth in Devices

Chair: Randy Giusto, *Director, Mobile & Display Research,* **IDC**

8.00 **Registration & Coffee**

9.00 **Chair's Welcome Address & Opening Remarks**

Bluetooth In Desktops & Mobile PCs

9.10 **Examining Bluetooth In The Desktop, Laptop, and Handheld PCs**
- Examining potential Bluetooth applications by market segment:
  - commercial/corporate office
  - home/small office
  - factory/industrial
- Evaluating the 'Bluetooth computer'
  - examining Bluetooth peripherals
  - understanding the implementation challenges
- Implementing Bluetooth in PCs: what are the technical hurdles and how can implementation be optimised?
  - chipset selection
  - antenna placement
  - computer interface
- Evaluating Bluetooth within mainstream computing
  - clarifying the Bluetooth implementation roadmap
  - understanding the cost issues
  - evaluating application development
  - managing security challenges
  - enhancing safety

Kevin Gagnon
Senior Business Development Manager,
COMPAQ

9.45 **Driving Bluetooth Into The Office Environment**
- Examining Bluetooth developments for wireless office connectivity
  - wireless networking
  - cable replacement
  - peripheral connectivity
  - interactive wireless conferencing
- Understanding the limitations to Bluetooth in the office and scope of product capabilities
- Examining the advantages offered by the wireless LAN office
  - examining the role of Bluetooth in LAN applications

Andreas Malzach, *Director, Business Development, & General Management European Affairs,* **WIDCOMM**

10.20 **Morning Coffee**

RTLESS CONNECTIVITY

10.50 **Harnessing The Potential Of Bluetooth For The Notebook PC Market**
- Evaluating current and future connectivity scenarios between notebook PCs and peripheral applications
  - hand-held devices, Palm applications, etc.
- Examining the alliances forming to jointly develop Bluetooth technology for the notebook PC market
- Analysing how companies are planning to use Bluetooth to address the notebook PC market over the next three years

Lionel Wolowitz, *CTO,* **PSION**

11.25 **Optimising The Connectivity Potential Of Bluetooth In Palmtop Devices**
- Examining Bluetooth functionality for Palm handheld computers
  - delivering full radio, digital logic and lower layer BT software to the Palm OS platform
- Outlining the device-to-device connectivity made available with Bluetooth:
  - Palm-to-Palm
  - Palm-to-laptop
  - Palm-to-cellphone
  - Palm-to-stationary access point
- Understanding how size, weight and battery life must be optimised for Bluetooth development in Palmtop devices
- Identifying future implementations of Bluetooth on a Palm handheld

PALM

12.00 **Examining The Impact of Bluetooth In The Printer Marketplace**
- Evaluating how Bluetooth will effectively support printing mechanisms
- Wireless anywhere printing: Examining key future wireless printing applications with Bluetooth
- Detailing with what enthusiasm printer vendors are implementing Bluetooth technology
- Examining the potential market for Bluetooth enabled printers as consumers realise they can put their printer almost anywhere in the house and print from it to multiple PCs or Internet access devices

Jon Asahina
VP of Marketing & Chief Information Officer
TROY XCD

12.35 **Chairs Closing Remarks & Lunch**

Plenary Sessions

2.00 **Chair's Welcome Address & Opening Remarks**

2.05 **Striving Towards Interoperability: The "Must Have" For Bluetooth Success**
- Tracking the progress of the UnPlugfest gatherings - in what ways are they bringing Bluetooth nearer to successful interoperability?
- Understanding the critical nature of Bluetooth interoperability as the technology is pulled across a multitude of industries and devices
- Evaluating to what extent the increasingly cross industry membership of the SIG threatens the chances for Bluetooth interoperability
- Overcoming further interoperability issues resulting from competing wireless technologies such as WLans and HomeRF
- Leveraging interoperability with the consumer: selling interoperability as the key to fast introduction of new products

Gerhard Heider
Sector Manager Connectivity
PHILIPS SEMICONDUCTORS FRANCE

2.45 **Harnessing The Potential Of Bluetooth Access Points**
- Understanding the implementation challenges of access points for data and voice
- Developing architectures for access points for different services
- Ensuring connectivity in the dense Bluetooth environment
- Adding voice telephony to Bluetooth access points
- Providing a future roadmap of data access points
- Evaluating real life customer examples

Simon Gawne,
VP of Marketing & Business Development,
RED-M

3.25 **Bluetooth Solutions From Siemens: Examining LAN Access In Offices And Public Hotspots**
- Examining the demand for ubiquitous intranet and Internet access
- Understanding the Bluetooth usage models
- Analyzing the market segmentation
- Examining the services and Bluetooth terminals which will be supported in offices and public hotspots
- Ensuring a modular and scalable Bluetooth solutions architecture
- Understanding the customer's demand for complete and approved end-to-end solutions including service

Hans Mollenauer, *VP Business Development, Bluetooth Solutions,*
SIEMENS

4.05 **Afternoon Tea**

4.35 **Applying Bluetooth And Personal Area Networking (PAN) In The Real World**
This presentation will consider some of the emerging applications for Bluetooth and how each application can be best served by delivering an optimal product into a highly cost, quality and usability sensitive market.
- Reviewing the Personal Area Network
  - what is it and why is it so important ?
  - usage models
- Analysing the Bluetooth market opportunities and likely applications
  - first generation products and beyond
  - cable replacement, access points and ad hoc networking
  - different product requirements
- Evaluating the primary issues involved with product differentiation
  - single chip vs two chip
  - software- hardware partition
  - user interfaces
  - profile support
  - optimal design choices
- Examining Intellectual Property as an enabler
  - key requirements for success
  - system on chip (SCO) design approach
  - modularity and product optimisations

Charles Sturman
Bluetooth Silicon Programme Manager
TTP COMMUNICATIONS

5.15 **Evaluating The Potential Of Bluetooth For Personal Trusted Devices In The Local Environment**
Jukka Parkkinen,
Product Manager,
NOKIA

5.55 **Close of Conference Day Two**

GALA PARTY
You are cordially invited to our **Bluetooth3 Geneva Gala Party** where you can join the speakers in a relaxed atmosphere, network with your peers and make further contacts.

ENABLING EFFORTLESS CONNECTIVITY

www.iir-bluetooth.com

Conference Day Three
Thursday 2nd November 2000

Bluetooth In the Silicon Market

7.45 **Registration & Coffee**

8.30 **Chair's Welcome Address & Opening Remarks**

8.40 **Evaluating The Bluetooth Opportunity For The Silicon Market: How Are The Silicon Suppliers Positioning Themselves To Exploit The Bluetooth Phenomenon?**
- "By 2005, the market opportunity for Class 1, 2 and 3 Bluetooth silicon solutions will approach $5 billion (US)" according to Cahners In-Stat Group:
  - analyzing the impact of Bluetooth on the total semiconductor market and forecasting the Bluetooth silicon market
  - forecasting when a $5 solution will be available vs. when it will be prevalent
- Analysing the likelihood of one large silicon company becoming the defacto Bluetooth supplier, and looking at future strategies for smaller operations as the silicon market grows
  - analysing the market opportunities for new, highly focused silicon and IP players to become significant competitors to more established vendors
- Examining the joint ventures and alliances being forged in order to share technical expertise and take advantage of this burgeoning market
- Detailing the early entrant silicon suppliers in this market
- Examining the early entrant equipment manufacturers with Bluetooth-enabled products
  - forecasting the Bluetooth-enabled equipment market
- Exploring the impact of host processing and single-chip solutions to lower the cost of adding Bluetooth functionality to end products

Joyce Putscher, *Director, Consumer & Converging Markets & Technologies Group,* **CAHNERS IN-STAT GROUP**

9.05 **Selecting The Optimum Silicon provider For Your Bluetooth Requirements**
- What are the criteria for selection?:
  - product time-to-market
  - product cost
  - approval status
  - ability to demonstrate flexibility and an effective and realistic roadmap to market
- Understanding how to future proof your Bluetooth development by making appropriate silicon choices in terms of single chip or multiple chip solutions

Paul Kan, *Bluetooth Strategic Marketing Manager,Program Manager, Bluetooth SIG,* **LUCENT TECHNOLOGIES**

9.30 **When And How Will The $5 Chip Solution Be Achieved?**
- Predicting the likelihood of a $5 Bluetooth chip by the end of 2001
- Examining the challenges that the semi-conductor industry still has to overcome to achieve the $5 price point
- Working towards the 'zero chip' for Bluetooth - when might this be possible and how can Bluetooth manufacturing costs be expected to come in under $1?
- Establishing whether the $5 price point is only achievable with a single chip solution

Matthew Phillips, *Marketing Manager,* **CAMBRIDGE SILICON RADIO**

9.55 **Morning Coffee**

10.25 **Examining The Flexible System Architectures Required for Integrating Bluetooth into Consumer Devices**
- Examining the generic Bluetooth standard
- Evaluating Bluetooth-enabled consumer devices and their defined system requirements
  - PC laptop
  - cellular handset
  - cellular headset
- Determining the implementation tradeoffs when integrating Bluetooth into consumer devices
- Understanding the architecture options in the PC/laptop, cellular handset and cellular headset
  - hardware implementation
  - software development
- Analysing the qualification and certification challenges

Cedric Paillard, *Product Manager Sr - Bluetooth* **CONEXANT SYSTEMS**

10.50 **Connecting Through The Noise: CMOS Solutions For Harsh RF Environments**
- Evaluating in what ways performance in a high interference environment will be critical to several key Bluetooth applications
- Understanding the scale of the problem
- Tracking examples of real world operating environments
- Achieving effective design to neutralize the noise

Scott Bibaud, *Director of Marketing* **BROADCOM CORPORATION**

11.15 **Examining The Ultimate Bluetooth Solution - Zero Chip And Less Than $1**
- Understanding how increasing consumer demand means embedding Bluetooth technology will be critical in meeting the necessary cost goals
- Determining how licensing technology solutions provides the IC designer with all the necessary Intellectual Property (IP) to integrate Bluetooth from RF radio interface to host controller hardware and software
- Identifying and managing the requirements of the Bluetooth specifications on integrated circuit designs
- Evaluating the use of IP for embedded applications
- Understanding how the same IP can be used to achieve single chip and "zero chip" solutions

Bob Tait, *Business Development Manager - Bluetooth* **PARTHUS TECHNOLOGIES**

11.40 **Examining $5 Silicon Solutions: Is It Really The Road For A $100 System In Disguise?**
- Examining the functionality levels planned in a potential $5 chip
- Pricing the Bluetooth-enabled product/application
- Is Bluetooth expected to replace any "currently-cabled" accessory?
- A strange paradigm - is Bluetooth an application extension or vice versa?
- System considerations for Bluetooth enabled appliances: Determining how to reach the best cost/performance ratio

Yuval Ben-Ye'ev, *President & CEO,* **BRIGHTCOM TECHNOLOGIES**

12.05 **Panel Session: Analysing The Advantages And Risks Of Single-Chip Solutions For Bluetooth Applications**
Panel Chaired by: **Scott Bibaud,** *Director-Marketing,* **BROADCOM**
- Clarifying what is meant by single chip solutions
- Are single chip solutions critical to the success of Bluetooth adoption?
- Contrasting single chip solutions with 2 or 3 chipset approaches in terms of time-to-market, cost and size
- Understanding the possible risks in developing single chip solutions and the high potential for design reiteration
- Understanding the compelling need to drive down the cost and size of the hardware to enable Bluetooth applications in portable consumer devices

David Lyon, *Chairman & CEO,* **SILICON WAVE**
Mike O'Neill, *Division Director Marketing,* **CONEXANT**
Paul Kan, *Strategic Marketing,* **LUCENT TECHNOLOGIES**
Matthew Phillips, *Marketing Manager,* **CAMBRIDGE SILICON RADIO**
Francisco Ferrer, Philips Semiconductors
Bob Tait, *Business Development Manager -Bluetooth,* **PARTHUS TECHNOLOGIES**
Michael Barkway, CADENCE DESIGN SYSTEMS

12.45 **Chair's Closing Remarks**

12.55 **Close of Conference & Lunch**

Getting Bluetooth Products Tested & Qualified On The Route To Market

Post Conference Briefing
Thursday 2nd November 2000

Many people are uncertain about how to get their products through the certification program. As many companies compete to bring certified products to market, testing and qualification are two of the hottest topics in the Bluetooth community. Product qualification involves a blend of RF and protocol conformance tests, profile interoperability tests, compliance declarations and documentation reviews as described in the Bluetooth Qualification Program Reference Document. Unravelling a process which is still unclear to many, this specially developed, focused half day briefing will examine in turn each of the critical issues and enable you to manage the balance between achieving product interoperability and time-to-market.

2.15 Chair's Welcome Address & Opening Remarks

2.20 **The Qualification Program**
- Evaluating the differences between type approval and Bluetooth Qualfication
- Clarifying the parties involved: BQA, BQRB, BQB, BQTF, BTAB
- Understanding the qualification process
  - practical overview: clarifying the key issues
  - achieving product qualification quickly and cost effectively - is there a way?
  - examining if Blue Unit testing is mandatory
  - license to sell vs qualification: how to cope with national requirements
- Understanding the documents needed and the testing that has to be performed
- Achieving the final goal: the Bluetooth logo

Cyriel Theys, *Expert in Regularity Affairs,* **CETECOM**

3.00 **Comparing Bluetooth Testing In-House With Using An Official Testing Facility**
- Understanding the levels of testing manufacturers can achieve in-house
- Identifying test equipment requirements
- Assessing appropriate test coverage
- Achieving effective pre-qualification testing in-house and qualification testing at an outside testing facility

Carsten Kuhfuss, *Bluetooth Manager,* **7Layers AG**

3.40 **Afternoon Tea**

4.10 **Qualification Test Solutions**
- Test categories and methodology
- RF testing
- Protocol/Profile conformance testing
- Profile Interoperability
- Blue Unit testing
- Testing solutions

Rafael Garcia, *Bluetooth Test Systems Product Manager,* **CETECOM**

4.50 **Testing/Qualification Case Study From Hyper Corporation**
Kevin Marquess, HYPER CORPORATION

5.30 **Close of Briefing**

About The Conference Organiser
IIR - The Institute For International Research

is the world's largest conference organiser with nearly 4,000 events staged annually. As a global organisation with 30 offices throughout the world and the capacity to access extensive databases, our conferences attract truly international speakers and delegates. Our highly targeted events benefit from the participation of senior industry attendees from over 100 countries, providing an opportunity for all those present to exchange information with peers across the globe in a relaxed but informative environment.

Ericsson Bluetooth Technology Solutions

Post Conference Briefing
Thursday 2nd November 2000

Ericsson has more than 5 years experience developing the Ericsson Bluetooth technology. This **Ericsson Bluetooth Technology Solutions Briefing** provides you with the opportunity to hear from experts how industry leaders have joined the Ericsson camp in order to gain a high quality solution and fast time-to-market. This briefing will cover the Ericsson and ARM partnership to deliver the Ericsson IP Bluetooth technology and will examine the associated tools that will allow you the fastest time to market system-on-chip solution.

You will also be presented with an overview of our partners and the total solutions they can provide, so you can spend your valuable time developing your specific application solutions instead of developing a Bluetooth chip. Finally, Ericsson will go through the evaluation criteria that a typical development organisation needs to have in mind when evaluating a buy-in of hardware/software solutions for Bluetooth for reuse within ASICs.

2.15 **Introduction & Welcome**
- Ericsson company overview
- Ericsson partnership with ARM
- Business relationship between Ericsson/ARM with licensees and OEMs

Jeff Robertson, *Key Account Manager,*
Bluetooth Licensing
Ericsson

2.45 **The Bluetooth Intellectual Property (IP) Product**
- Ericsson Bluetooth product presentation of the Ericsson IP hardware and software

Mads Bo, *Sales Manager,*
Bluetooth Licensing
Ericsson

3.30 **Afternoon Tea**

4.00 **IP Selection Criteria**
- What are the criteria for selecting IP selection?
- Examining time-to-market
- Achieving quality of design and product

Torbjorn Grahm, *Development Manager,*
Bluetooth Baseband
Ericsson

4.45 **Examining ARM Deliverables To Licensees**
- Presentation of Ericsson Bluetooth product deliverables, system-on-a chip (SoC), prototyping, testing, services

George Milne, *Bluetooth Product Manager,*
ARM

5.30 **Close of Solutions Briefing**

You are welcome to join us for a cocktail reception at the close of the day and utilise another opportunity to meet with the speakers and your peers.

www.iir-bluetooth.com

Developers Day Forum

Friday 3rd November 2000

A must for all Bluetooth adopter companies, this one day Developer's Forum will enable you to obtain the most up-to-date information about working with the Bluetooth open specification. Capitalise on this opportunity to network with the experts as they show you how to implement the Bluetooth technology for use in mobile and business market segments.

8.15 Registration & Coffee

9.00 Chair's Welcome Address & Opening Remarks

9.10 Understanding The Bluetooth Protocol Stack
- Brief overview and description of layers of a typical protocol stack that interface to a Bluetooth device with the HCI interface
- Understanding HCI, the building block of Bluetooth applications
  -HCI Data - HCI Transport - HCI Driver
- Evauating an example of a basic application that uses HCI to connect two Bluetooth devices, transmit data between the devices, and pass audio between the two devices
- Analysing the protocol stack implementation details that must be considered when developing a protocol stack
- Analysing items that are part of the Bluetooth specification but not part of a Bluetooth protocol stack
  - discovering units   - security - park/hold/sniff
- Sampling of what is currently available

Tim Reilly, *Chief Technology Officer*
STONESTREET ONE, INC.

9.50 What is Bluetooth Quality of Service?
Mobile wireless communications are subject to interference, so unlike fixed wired communications they can never really guarantee quality of service. That doesn't mean that QoS isn't relevant though… even if perfect QoS can't really be guaranteed, it is sometimes still worth making the attempt! For example Bluetooth devices can have many applications using many links. The different applications may have different demands and different priorities, and the Bluetooth QoS parameters can allow the needs of applications to be better balanced. This presentation looks at what QoS parameters can be set, and how the Bluetooth protocol stack negotiates QoS.
- Evaluating QoS parameters and what they mean
  - quality of service type - token rate - token rate bucket size
  - peak bandwidth - latency - delay variation
- Negotiating QoS
  - messaging throughout the stack - L2CAP messaging
  - HCI messaging - LMP messaging
- Tracking what happens when QoS fails
  - QoS violation events - flushing and delays
  - link supervision timeout
- Providing parameters for QoS

Jennifer Bray, *Bluetooth Software Programme Manager,*
TTP COMMUNICATIONS

10.30 Morning Coffee

11.00 Evaluating The Challenges And Solutions For Implementing Bluetooth In End Products
- Understand the product design requirements
- Identifying and managing Bluetooth implementation pitfalls and trade-offs
- Evaluating the different technical options in terms of:
  - hardware implementation
    - RF only
    - 2 chip RF + baseband
    - single chip
  - software development
    - lower layer stack
    - upper layer stack
    - application profiles
- Making your software selection and the impact on silicon choices
- Understanding the technical challenges for antenna implementation
- Analysing qualification and certification issues

Cedric Paillard, *Sr Product Manager - Bluetooth,* **CONEXANT SYSTEMS**

11.40 Evaluating How Resolving Design Issues Can Require Changing Your Point Of View
New communication technologies, such as Bluetooth, shield different layers of the system from each other in an attempt to simplify the design process by creating independent objects or modules. In theory, this structure allows designers to work independently of each other and without knowledge of the "black box" before or after their area of interest. Unfortunately, the use of this technique means that for a person to debug a problem in the design, they must understand the intricacies of the Bluetooth wireless technology at all levels. This presentation will therefore focus on:
- Demonstrating and explaining the important differences and identifying the most critical probing points or 'Points of Observation' that you should utilize to identify and resolve design issues related to the Bluetooth architecture
- Capturing and simplifying:
  -complex sequences
  -interoperability issues
  -validate product designs using non-intrusive tools.

Joe Mendolia, *Vice President, Sales and Marketing*
CATC (Computer Access Technology Corporation)

12.20 Lunch

2.00 Evaluating The Developmental Complexities Of Bluetooth - A Barrier To Success?
- Reviewing developers' expectations for Bluetooth solutions
- Identifying common problems and stumbling blocks
- Tracking solutions from across the industry
  - reviewing hardware and software propositions
- Forecasting the way forward
  - evaluating if current solutions will be sufficient

Vicky Larmour, *Software Engineer*
CAMBRIDGE CONSULTANTS

2.40 Examining The Integration Of Embedded Bluetooth IP (Software And Hardware)
- Examining the trade-offs required for the addition of Bluetooth functionality in a device
- Understanding what Bluetooth IP is and the advantages to the system developers
- Explaining the challenges of IP integration into a system and how a prototyping platform speeds up the process
- Detailing the key characteristics that make a Bluetooth protocol stack easy to integrate in an application
- How can Bluetooth IP help the developer to get a product quickly while allowing for a high level of quality and flexibility?

Michel Eftimakis, *Bluetooth Systems Engineer,* **NEWLOGIC**

3.20 Afternoon Tea

3.50 Examining The Migration Of The Link Manager (LM) To The Host System
- Clarifying the definition of the particular architecture
  - running the LM on a host platform above the interface to the Bluetooth specific device.
- Evaluating why you should adopt this particular architecture: what are the key benefits?
- Analysing where to implement this architecture
- Determining when to proceed with implementation
  - outlining a possible cost/benefit equation
- Evaluating the 'make or buy decision'
  - what processes need to be established in order to complete the internal development and maintenance of the LM?
  - outlining what is available as an 'off the shelf' package
  - identifying what the OEM should be seeking in the LM software stack
  - LM features and benefits - LM current platform considerations
  - LM integration
- Identifying the proceedure to integrate the LM into the application host platform

Louis Kinsella, *Business Development Manager*
SILICON & SOFTWARE SYSTEMS

4.30 Chairs Closing Remarks

4.50 Close of Developers Day Forum

Bluetooth
In The Headlines....

Bluetooth3

With new product launches in the pipeline and silicon in production, Bluetooth3 Geneva provides a perfectly timed opportunity to keep abreast of recent developments.

As the Bluetooth market makes the shift from development community technology to delivering real Bluetooth-enabled products, Bluetooth Geneva provides the ideal environment to keep track of the new application offerings and new players entering the field. Plus, Bluetooth3 provides a great opportunity to hear critical debate on key Bluetooth development challenges such as interoperability, silicon costs, product roadmap, interference and security from an unparalleled speaker line up.

Take part in and capitalise on hot-off-the-press market research for the Bluetooth industry. Use this forum to reinforce relationships with SIG members and established players, while meeting the new entrants in the field - come and do business with the Bluetooth community.

Networking opportunities at Bluetooth3 Geneva will be optimised to provide you with maximum exposure to new solutions and potential new partners. Network with the people YOU need to influence in the Bluetooth market, Just a glance at the pie charts below will illustrate the quality and diversity of the Bluetooth forum audience.

We have made sure there is no excuse for anyone to leave the event without having ample opportunity to network with fellow delegates, speakers, sponsors and exhibitors. Look out for early evening drinks receptions around the exhibition area and the Bluetooth Gala Party.

Take The Advice Of Delegates At IIR's April 2000 Bluetooth2 Event....

"...great for networking with both potential customers and competitors, that's where you really find out what's happening" - TTP Communications

"Great and competent speakers with very good ideas and insights" - Canon Information technologies

"Good overview of Bluetooth applications, current status, challenges ahead and competition" - Lucent Technologies

"Good Q & A and good breadth of application areas" - TTP Communications

"...easy contact to other Bluetooth users" - Swissphone Telecom

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"The other big opportunity is making Bluetooth chips. For Bluetooth to become pervasive cost per chip has to be brought down from more than $20 today to $5 or less"
Financial Times, 3rd July, 2000

"By 2005, there will be more than 670 million Bluetooth-enabled devices on the market" Source: Cahners In-Stat Group quoted in the FT

"Wireless Lan (WLAN) vendors have admitted that they do not know whether next generation Bluetooth technology can coexist with WLANs" **Communications Week International**
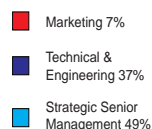
"At this point nobody knows what applications will find traction with consumers. What's the killer application for Bluetooth?" asks David Brice of the Strategis Group, a telecommunications consultancy. "I don't know and I don't think anyone has come up with one" Rick Overton writing for Red Herring April 2000

"WITH BLUETOOTH THE MILLION DOLLAR QUESTION IS HOW TO MAKE MONEY" *Comms Week International 5 June 2000*

"...there are people who either need to deliver Bluetooth, or are expecting to buy Bluetooth. Summer 2000 is the last time that Bluetooth will exist as a development community technology", Vince Holton, Incisor

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Delegate Profile, Bluetooth2

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- Marketing 7%
- Technical & Engineering 37%
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- Western Europe 44%
- Eastern Europe 6%
- Scandinavia 14%
- Asia 12%
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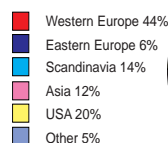
Visit The Bluetooth3 Geneva Website
This dynamic and popular event will be evolving right up to the last minute! In order to ensure that you keep yourself updated on all the latest social and networking opportunities that are being organised as well as all the details of the exhibitors and sponsors that are positioning themselves in the Bluetooth value chain, bookmark this site now! **www.iir-bluetooth.com**

Gold Sponsor

NOKIA
CONNECTING PEOPLE

Nokia is paving the way to the Mobile Information Society with its innovative products and solutions. The company is the leading mobile phone supplier and a leading supplier of mobile, fixed and I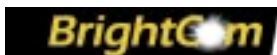P networks, related services as well as multimedia terminals. In 1999, Nokia's net sales totaled EUR 19.8 billion (US$ 19.9 billion). With headquarters in Finland, Nokia is listed on the New York (NOK), Helsinki, Stockholm, London, Frankfurt and Paris stock exchanges and employs more than 60 000 people. **www.nokia.com**

Silver Sponsors

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BrightCom Technologies, designs, develops and manufactures highly integrated, sophisticated silicon and software solutions for Personal Area Networking based on the Bluetooth open standard. BrightCom is a pioneer in offering a complete Bluetooth solution on a single chip, including baseband, protocol stack and application - a fully-fledged hardware, firmware and software solution. BrightCom's IntelliBLUE"! product line is geared towards the Bluetooth market. The IntelliBLUE"! family of silicon and software solutions comprises a complete suit of Bluetooth application processors, which enables OEM customers to implement their own differentiated application as a complete application/system on chip. For more information please visit our web site at: http://**www.brightcom.com**

ERICSSON

Ericsson is the leading provider in the new telecoms world, with communications solutions combining telecom and datacoms technologies. With over 100,000 employees in 140 countries, Ericsson simplifies communications for customers. Ericsson initiated the Bluetooth(tm) wireless technology and plays a leading role in Bluetooth development. As the only company to demonstrate the total Bluetooth solution, Ericsson presents everything from application development solutions, to consumer products such as the Bluetooth Headset. Additional information is available at **http://www.ericsson.se/bluetooth**.

Infineon technologies

Infineon Technologies, a wholly owned subsidiary of Siemens AG, was founded on April 1, 1999, comprising substantially all of Siemens' semiconductor activities. Infineon is among the Top 10 semiconductor companies worldwide, sales in fiscal 1999 (ending September 30, 1999) amounted to EUR 4.24 billion. Infineon is active in providing application-oriented semiconductor solutions for use in sectors such as speech and data communications, peripherals, wireless communications, automotive and industrial electronics, security and chip cards as well as memory products.

Based on GaAs, RF and mixed signal products as well as DSPs, the wireless unit offers high-end solutions for wireless communications. Please visit our web site: **http://www.infineon.com**

parthus
POWERING THE MOBILE INTERNET™

Parthus Technologies plc formerly known as Silicon Systems Ltd (SSL) is the world's foremost supplier of system-level intellectual property (IP). We target next-generation Mobile-Internet devices and applications such as Bluetooth, 3G, GPS, PDA and MP3 and are driving increasingly intelligent devices that combine broadband wireless access with advanced Internet capabilities. The Parthus approach focuses on the development of complete platforms.....delivering to our customers complete market-ready solutions with exceptional power and performance. For example, our zero chip complete Bluetooth solution for under a dollar. This greatly accelerates our customers time to market advantage which is our steadfast focus.

Parthus develop and license a broad portfolio of complete solutions in the form of platform-level IP allowing for smaller, faster and smarter electronic devices at lower costs. With dual headquarters in Dublin, Ireland and San Jose, California, Parthus has seven design and development centers throughout Europe and the US, with unrivalled expertise in core technologies such as DSP, Analog, Mixed-Signal and RF Technologies with vertical market expertise in GPS, Wireless Communications and Internet Audio. For more information please visit the Parthus website at **http://www.parthus.com.**

Commercial Opportunities at Bluetooth3 Geneva

A major feature of Bluetooth3 Geneva will be the chance to exhibit to a highly focused audience of key decision makers. This event presents an excellent opportunity to network in a relaxed environment with a carefully targeted audience. Why not join them to achieve the exposure your company needs to tap the new business opportunities that overcrowded trade fairs cannot support?

Tailored Solutions To Meet Both Your Business Objectives And Your Budget

Whatever your needs, we have a solution that will fulfil both your business objectives and your budgetary constraints.
Amongst our established solutions we offer: * Sponsoring a lunch or cocktail reception * An exhibition stand * Advertising in the delegate documentation packs * Sponsoring merchandise *
For further information please contact: Graham Wood, Business Development Manager, IIR Telecoms & Technology
Tel: +44 (0)20 7915 5170 Email: gwood@iir-conferences.com

Associate Sponsors

AU-Systems is a leading supplier of consulting services and solutions for the development of advanced wireless and Internet technologies, applications and associated services. Following the merger with Sandberg Trygg, Sweden's leading business-to-business marketing services agency, the company also offers integrated services for marketing communications.

Major clients include Ericsson, Telia, MeritaNordbanken and Singapore Telecom. AU-Systems was established in 1974 and currently employs more than 760 staff in offices in Stockholm, Gothenburg, Malmö, Lund, Östersund and Singapore. Please visit our website: **http://www.ausys.se/**

Conexant – the world's largest independent company focused exclusively on providing semiconductor solutions for communications electronics – has developed a broad range of components for all segments of the wireless market, including terminal and infrastructure demands. Our RF devices for Bluetooth, GSM, CDMA, and TDMA applications, address multi-band/multi-mode requirements. With system-level expertise in GSM, cordless and a 30-year history in GPS, Conexant is positioned to address 3G terminal manufacturers' needs today. Conexant . . . What's next in communication technologies.

For more information please visit **http://www.conexant.com/**

GigaAnt is a leader in developing, manufacturing and supplying a range of high-performance antennas dedicated to short-range wireless communication in the 2.4 GHz band, e.g. with Bluteooth devices. We can draw on 25 years of experience in the design and application of antennas for mobile applications. Our off-the-shelf standard products consisting of internal/embedded and external antennas with the possibility of customized units help to reduce product time to market. For newcomers to wireless technology we offer complete antenna solutions, for established companies we offer high-volume production facilities in Sweden, China or Malaysia. Our advanced test facility offers extensive antenna development support and RF testing. For more information please visit our website at: **http://www.gigaAnt.com**

Philips Semiconductors, headquartered in Eindhoven, The Netherlands, is a $5 billion company, spearheading semiconductor manufacture and the emerging field of systems on silicon solutions. As the world's third largest provider of communications ICs, Philips Semiconductors has key competencies in all the process technologies required to provide total solution chip-sets for wireless applications such as 3G, GSM, DECT, and Bluetooth, together with the system level know-how required to provide customers with optimum hardware/software solutions. Philips Semiconductors offers a unique 'one-stop' source for advanced and high performing ASICs and/or ASSPs for both wired and wireless communications. Additional information on Bluetooth capabilities from Philips Semiconductors can be obtained by accessing its home page at http://**www.semiconductors.philips.com/bluetooth**

Siemens Information and Communication Networks Group is a leading provider of integrated voice and data networks with a comprehensive portfolio of IP-based products and solutions for enterprises, carriers and service providers. The Group has many years of experience in consulting, planning, installing and operating converged networks. The new Bluetooth solutions from the Information and Communication Networks Group support cost effective wireless access in offices and public hotspots. Users can access with any Bluetooth enabled terminal (e.g. notebook, PDA) any service in their intranet or the Internet. For further information see http://**www.siemens.com/bluetooth**

Official Publications

News from the Bluetooth and Short Range RF Environment.

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