

Updated programme
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Mobile Backhaul

Asia 2009

Optimizing network capacity to meet the demands of next generation services
3 - 5 March 2009, Hong Kong

Recognized backhaul experts on the programme include:

- **Richard Moss**, General Manager, Business Continuity, Security & Governance
BT ASIA PACIFIC
- **Arnaud Cauvin**, Mobile Backhaul Project Manager
FRANCE TELECOM/ORANGE
Optimized Backhaul Project Leader
NEXT GENERATION MOBILE NETWORKS (NGMN)
- **Data Sharan Mishra**, Head Technology & Network Department
QTEL
- **Kurt Schmid**, Head of Wireless Access Platforms
SWISSCOM
- **Roberto Micali**, Optical Networking and Planning
TELECOM ITALIA
- **Alon Bassman**, Vice President, Asia-Pacific Sales
ACTELIS NETWORKS
- **Aviv Ronai**, Chief Marketing Officer
CERAGON NETWORKS
- **Ariel Shuper**, Vice Chairman, Application Technical Committee
IP/MPLS FORUM
- **Philip Gapuz Te**, President and CEO
LUXONUS
- **Kevin Vachon**, COO
METRO ETHERNET FORUM (MEF)
- **Matt Walker**, Principal Analyst
OVUM
- **Wong Kian Soon**, Regional Technical Architect
TELLABS

5 key reasons to attend

1. Learn from the **backhaul upgrade experiences** of pioneering international operators
2. Receive comprehensive analysis on the very **latest IP-based backhaul technologies**
3. Uncover **solutions for maintaining legacy voice and data services** over an all-IP architecture
4. Find the **best backhaul transport media** for your network: Wireless, fibre, copper, satellite
5. Meet and **network with the leading experts** in mobile backhaul

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B E A C N

Mobile Backhaul Asia 2009

Find solutions to the business critical **backhaul bottleneck** at Asia's only mobile backhaul dedicated conference.

Meeting the backhaul challenge

- Will your current backhaul networks be able to support bandwidth-hungry 3.5G and 4G services?
- Will your network be able to backhaul high-speed packet-based data and legacy "cash cow" TDM voice services simultaneously?
- Would you like to increase backhaul capacity without increasing backhaul costs?
- Are you looking for low-cost backhaul transport solutions that meet the needs of your region's geography?
- Do you want to beat your competitors in terms of price, QoS, reliability and network survivability?

Mobile Backhaul Asia will bring together pioneering mobile operators and leading technology providers to explore solutions to future-proof your backhaul networks, minimize OPEX and maximize the profitability of next generation high speed mobile services, while maintaining the QoS of legacy voice services.

Who should attend?

This conference will benefit

Telecoms Operators



- Chief Technology Officer
- Head of Transmission
- Head of Network Planning
- Head of Wireless Access Platforms
- Head of Optical Networking
- Head of IP Transport
- Head of Network Architecture & Engineering
- Head of Transport Strategy

Infrastructure Solutions Vendors

- Business Development Director
- SVP Marketing
- SVP Product Development
- Director of Sales APAC
- Director of Transport Solutions
- Architect IP Networks

Network Strategy Consultants

Programme at a glance

Date	Pre-conference workshops – Tuesday 3 March 2009	Conference Day One – Wednesday 4 March 2009	Conference Day Two – Thursday 5 March 2009
AM	Workshop A: Deploying IP-based backhaul Led by: 	Key drivers and business cases for backhaul network investment Backhauling 3.5G and beyond <ul style="list-style-type: none">• Backhaul for HSxPA• Planning backhaul for LTE	Disaster planning, security and resilience of backhaul architectures Transport media for mobile backhaul <ul style="list-style-type: none">• Fibre• Wireless• Copper• xDSL• Satellite Femtocells : Reducing backhaul volumes and costs
PM	Workshop B: Ethernet-based mobile backhaul Led by: 	Ethernet IP for backhaul <ul style="list-style-type: none">• Assessing IP/MPLS as a backhaul solution• Pseudowires to support legacy TDM on Ethernet/ IP infrastructure• Migration strategies to IP/Ethernet backhaul: Overlay, Hybrid, or all-IP	Strategies for outsourcing backhaul Migrating to all-IP: Upskilling staff and organizational change considerations

About Beacon Events

BEACON Beacon Events, previously Institute for International Research (IIR) Asia, is an international business services company focused on conferences, exhibitions and management training. Beacon Events has an expanding portfolio of large-scale events which cope with the challenges arising from different business communities:

- **Telecommunications**
- **Transport and logistics**
- **Real estate and facilities**
- **Gaming**
- **Mining and energy**
- **Retail**
- **Legal, anti-corruption and ethics**

Support from strategic partners – industry associations and leaders, government organizations, media and publications – make our events the not-to-be-missed industry gatherings for **intelligence, business development and networking**.

Some of its successful annual series of telecom events include:

1. 13th Annual Mobility World Congress www.mobilityworldcongress.com
2. 9th Annual China Mobility International Summit www.china-mobility.com
3. Vietnam Telecoms International Summit www.vietnam-telecoms.com
4. 14th Annual India Telecoms International Summit www.india-telecoms.com

Event schedule and details are available at www.BeaconEvents.com.

**For enquiries or registrations, please contact Beacon Events on
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Conference Day One - Wednesday 4 March 2009

08:00 Registration

09:00 Opening Remarks from Chair

Matt Walker, Principal Analyst
OVUM

Meeting the backhaul requirements of 3.5G and beyond

09:20 **Building a mobile backhaul infrastructure to future-proof your network**

- Assessing the real potential demand for backhaul hungry services: User generated content, mobile TV/video, music, internet, VoIP and mobile commerce
- Technology choices for future-proofing your backhaul architecture
- OPEX and CAPEX considerations when selecting a backhaul upgrade solution
- Transport media for backhaul: Fibre, copper or wireless – pros and cons

09:45 **Planning backhaul solutions to meet the needs of LTE**

Operator

- How much backhaul capacity will LTE-supported services and applications demand?
- Exploring solutions for backhauling LTE
- Converging legacy 2G/3G services and LTE on a common backhaul infrastructure
- What impact will backhaul costs potentially have on the profitability of LTE?

Arnaud Cauvin, Mobile Backhaul Project Manager
FRANCE TELECOM/ORANGE
Optimized Backhaul Project Leader
NEXT GENERATION MOBILE NETWORKS (NGMN)

10:10 **Backhauling HSxPA: Experiences to date and future challenges**

Operator

- How has the deployment of HSDPA impacted backhaul volumes?
- What backhaul solutions have been installed to cope with the increased demand: Technology choices, cost, reliability, QoS?
- What will be the impact of HSUPA enabled services such as user generated video?
- Ensuring scalability and bandwidth on demand when selecting backhaul solutions for HSUPA

Kurt Schmid, Head of Wireless Access Platforms
SWISSCOM

10:35 **Panel Discussion: Planning the timelines for your backhaul upgrade: Invest now or wait and see?**

- How significant is threat of an impending backhaul bottleneck to operator business models?
- How long before current backhaul capacities are exhausted?
- When should operators invest in a backhaul network upgrade?
- Deploy now, deploy with HSDPA/EV DO, deploy according to backhaul volumes, or wait until LTE?

11:15 Morning refreshments and networking

Carrier Ethernet solutions for mobile backhaul

11:45 **Utilizing the attributes of Carrier Ethernet to optimize backhaul networks**

- The MEF and Carrier Ethernet
- Why Carrier Ethernet offers such a cost effective solution to operators' Mobile Backhaul needs
- How Carrier Ethernet enables integration with wireline networks
- Implications to developers and end users of the MEF Mobile Backhaul Implementation Agreement
- Examining circuit emulation services over Ethernet and the MEF Certification Program
- Highlights of an MEF Mobile Backhaul survey and a service provider case study

Kevin Vachon, COO
METRO ETHERNET FORUM (MEF)

12:15 **Meeting the demand for wireless backhaul: The role of Carrier Ethernet**

- Improving the rate, reach and reliability of Ethernet in the first mile to deliver next generation services to the base station
- Impact on CAPEX and OPEX of backhaul architecture alternatives
- Future-proofing for HSPA, EVDO, LTE, WiMAX and high speed multimedia services
- Solutions for delivering high speed Ethernet backhaul over existing copper infrastructure
- Solving synchronization and holdover issues

Alon Bassman, Vice President, Asia-Pacific Sales
ACTELIS NETWORKS

12:45 Lunch and networking

Migrating to IP/Ethernet backhaul

14:15 **Converging 2G/3G and LTE on common backhaul infrastructure**

- Analyzing the future challenges of building an LTE backhaul infrastructure, what lessons have been learned?
- How can operators converge the 2G/3G and LTE backhaul infrastructure?
- What are the potential pitfalls with this move?

Aviv Ronai, Chief Marketing Officer
CERAGON NETWORKS

14:40 **Solutions for building a converged backhaul network**

Operator

- Importance of converging 2G and 3G traffic to reduce OPEX
- Exploring aggregation platforms to converge legacy TDM and ATM with IP backhaul
- Managing the challenges of clocking and synchronization over a converged network
- What will be the challenges of converging 2G and 3G with LTE?

Data Sharan Mishra, Head Technology & Network Department
QTEL

15:15 **Panel discussion: Is Ethernet IP/MPLS the best solution to the backhaul bottleneck?**

- How does IP/MPLS backhaul compare with SDH/SONET, TDM and ATM in terms of scalability, bandwidth on demand, redundancy, cost, reliability and QoS?
- How will the transition to IP RAN produce operational savings, improve utilization, and simplify existing backhaul networks?
- MPLS or PBB-TE/PBT: Assessing strengths, weaknesses and potential future roles for the competing protocols
- How do advances in OAM tools improve the manageability of IP/MPLS networks?

15:45 Afternoon refreshments and networking

16:15 **MPLS in the backhaul to lay the foundation for next generation mobile services**

- IP/MPLS Forum's MPLS Mobile Backhaul Initiative
- Business benefits of MPLS in the delivery of next generation services and applications
- MPLS for LTE and 4G backhaul
- Maintaining legacy TDM over MPLS architectures
- Assessing the resilience, costs and future proofing of MPLS-based backhaul

Ariel Shuper, Vice Chairman, Application Technical Committee
IP/MPLS FORUM

16:35 **Employing pseudowires to enable multi-service convergence on an all-IP backhaul solution**

Operator

- Examining the Telecom Italia experience in backhauling mobile 3G over Ethernet
- Understanding the mobile network transport requirements
- Analysing the role of MPLS
- Supporting legacy TDM, ATM, Frame Relay and Ethernet services on a packet switched IP backhaul network through pseudowires
- Examining impact of pseudowire technology on CAPEX, OPEX and the migration to all-IP

Roberto Micali, Optical Networking and Planning
TELECOM ITALIA

17:00 **Panel discussion: Overlay, hybrid or straight to all-IP backhaul: Which is the best strategy for migration from TDM to all IP?**

- How do the three potential strategies compare in terms of in terms of cost, future proofing and ease of implementation?
- How can the different requirements of 2G, 3G, HSxPA, LTE and WiMAX be best supported?
- Evaluating backhaul strategies employed around the world: Techniques and results

17:45 Closing remarks and end of day one

Conference Day Two - Thursday 5 March 2009

09:30 Opening remarks from Chair

09:35 **Planning for disaster: Designing security and resilience into your backhaul architecture**

- Threats to backhaul networks: Natural disaster, terrorist activity, etc.
- Which backhaul transport solutions offer the best levels of survivability in the worst case scenario?
- Designing redundancy into the backhaul to ensure network survivability and security

**Richard Moss, General Manager, Business Continuity, Security & Governance
BT ASIA PACIFIC**

10:05 **Next generation backhaul: Preparing mobile transmission for the 4G Era**

- Transport solutions to effectively deliver the services required by the Gigabit Age
- Exploring the range of requirements for HSPA, LTE, WiMAX and FMC
- Integrating 2G, 3G, and 4G networks to harmoniously migrate to high bandwidth multimedia end-user services
- Examining solutions to deliver services cost-effectively

**Wong Kian Soon, Regional Technical Architect
TELLABS**

10:30 **Deploying Femtocells to reduce backhaul costs**

- To what extent could Femtocell deployment reduce backhaul volumes by diverting traffic onto the customer's xDSL line?
- Strategies and business models to encourage the uptake of femtocells
- Backhaul cost savings vs the expense of subsidizing Femtocells to encourage uptake
- Technical challenges for femtocell deployment: Billing and security

11:00 Morning refreshment and networking

Wireless and wireline options for mobile backhaul

11:30 **Fibre to the base station: Pros and cons**

- Calculating the costs of deployment against future savings
- Advances in optical networking techniques to optimize performance
- Adding redundancy to protect services against damage to the fibre infrastructure
- Is fibre always the best option?

**Matt Walker, Principal Analyst
OVUM**

12:00 **Employing Ethernet over copper as a cost effective alternative to fibre**

- Assessing the performance of copper alternatives to fibre
- How does Ethernet over copper affect backhaul costs per bit?
- Techniques for providing carrier Ethernet and full TDM/IP interoperability over existing copper infrastructure
- Provisioning rural cell-sites: Technical solutions for backhauling over long distances via copper

12:30 **Examining the potential of wireless Ethernet solutions for mobile backhaul**

- How does wireless compare on cost, ease of installation, reliability and QoS with optical solutions?
- Deploying long distance microwave solutions to minimise cost in rural areas
- Deploying multipoint mesh technologies to establish redundancy and ensure network survivability
- Securing spectrum for wireless backhaul
- Exploring advances in microwave, millimeter wave and free space optics to enhance the performance of wireless backhaul
- Assessing fixed WiMAX as a backhaul solution

13:00 Lunch and networking

14:30 **Fixed WiMAX-based backhaul solutions**

- Assessing the potential of fixed-WiMAX as a backhaul solution
- Pros and cons of utilizing unlicensed spectrum vs licenced bands
- Mesh architecture vs PTP and PtMP
- How does WiMAX compare with wireless alternatives in terms of ease of deployment, price and QoS, survivability

**Philip Gapuz Te, President and CEO
LUXONUS**

15:00 **Satellite backhaul solutions for extending the reach of mobile networks**

- Deploying satellite backhaul to overcome the challenges of diverse geography and low population density
- How satellite compares with microwave, copper and fibre on cost and performance
- Assessing the technical challenges of deploying a satellite backhaul solution
- Case study: Satellite backhaul in action

15:30 **Panel discussion: Which transport media are the most appropriate for mobile backhaul in APAC?**

- Optical, microwave, xDSL, coaxial, PON, Ethernet over copper, T1/E1: How do they compare?
- How does geography and economics impact the choice of backhaul medium across APAC?
- To what extent does network security impact the choice of backhaul solutions in APAC?

16:00 Afternoon refreshments and networking

Strategic considerations for the move to all-IP

16:20 **Preparing your organization for all-IP**

- What does the move to all-IP mean for roles and relationships and reorganization within operators' network teams?
- Upskilling your staff to prepare for the technical and cultural challenges of all-IP networks
- Managed network solution vs in-house? Which offers the most cost effective and smooth migration?

16:50 **Outsourcing mobile backhaul and managing SLAs**

- In-house vs outsourced: Pros and cons of each approach
- Selecting the right outsourcing partner and determining responsibilities
- What KPIs and SLAs are essential in the contract with an outsourcing partner?
- Techniques for measuring and monitoring the performance of an outsource partner

17:20 Closing remarks and end of summit

Hear what delegates have said about Beacon's telecoms events:

"Very comprehensive and rich content in the program agenda. Good to hear many operators share their first-hand experiences of network deployments and business cases."

Qualcomm

"Rich information, enabling me to understand the evolution path of mobile broadband."

PCCW

"Wide participation from different countries"

Hong Kong Telecommunications Users Group

"Focused event on latest and hot topics in telecom with excellent speakers."

Alcatel

"Enhances networking and communication between vendors, operators and end-users."

China United Telecom

"Great Event. This event gave the right momentum and visibility for all the decision makers in the industry..."

CSR International

"Current topics were seriously discussed."

ITU-APT Foundation of India

"Addressed hot topics about the mobile industry. Lively presentations by industry experts. Very Convincing."

China Telecom Beijing Research Institute

Pre-conference Workshops - Tuesday 3 March 2009

Workshop A (09:30 - 12:30) Deploying IP-based backhaul

Led by:  CISCO™

Details to follow shortly

Workshop B (14:00 - 17:00) Ethernet-based mobile backhaul

Led by:  MEF
Metro Ethernet Forum

Carrier Ethernet's attributes are ideally suited to meet the high growth demand for mobile backhaul capacity without the penalty of high cost that has caused such an impasse for legacy networks. The MEF is the defining body for Carrier Ethernet and has taken the leading role in its rapid worldwide growth.

Topics to be discussed:

- Ethernet-based mobile backhaul - Service provider drivers and challenges
- Ethernet-based mobile backhaul - An MEF perspective
- Panel discussion: Ethernet-based mobile backhaul for GSM/UMTS networks
- Panel discussion: Ethernet-based mobile backhaul for CDMA/EVDO networks

Visit www.MobileBackhaulAsia.com for programme and speaker updates.



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In providing comprehensive coverage of all the latest development in Mobile Backhaul, **Mobile Backhaul Asia** is Asia's first focused Mobile Backhaul event which will allow you to meet all the key players under one roof, saving you and your organization valuable time and resources!

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 CERAGON

Ceragon Networks Ltd. (NASDAQ/TASE: CRNT) is a leading provider of high-capacity Ethernet and TDM wireless backhaul solutions for cellular and fixed wireless operators, enterprises and government organizations. Ceragon's FibeAir® product family offers scalable solutions for wireless transport of broadband services. Operating across multiple frequencies for IP and SONET/SDH protocols, FibeAir systems support the emerging needs of next-generation networks that are evolving to all-IP based services. Ceragon leads the market in IP backhaul, offering a unique, native IP solution that provides the efficient, robust connectivity required for next generation mobile, WiMAX, LTE and converged networks. More information is available at www.ceragon.com.

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	Book by 15 December 2008	Book by 31 January 2009	Thereafter
Conference + 2 Workshops	US\$ 2,395	US\$ 2,595	US\$ 2,795
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Cancellation: Should you be unable to attend, a substitute delegate is always welcome at no extra charge. We can also provide a credit note for attendance at any future event. Alternatively, a 50% refund will be provided for cancellations received in writing (letter or facsimile) no later than four weeks prior to the event (31 January 2009); thereafter we regret no refunds can be made.