

Mobile Backhaul Asia

Optimising network capacity to meet the demand of next generation services
9 – 10 December 2008, Hong Kong

Program at a glance

Date	Monday 8 December	Day One - Tuesday 9 December 2008	Day Two - Wednesday 10 December 2008	Thursday 11 December
Morning	Pre-conference workshops	Key drivers for backhaul network investment <ul style="list-style-type: none"> Business case for backhaul investment Drivers of demand: Impact of multimedia applications and services Backhauling 3.5G and beyond <ul style="list-style-type: none"> Backhaul for HSxPA Planning backhaul for LTE 	Backhaul for Mobile WiMAX Transport media for mobile backhaul <ul style="list-style-type: none"> Fibre, Wireless, Copper, xDSL, Satellite, Hybrid Femtocells: Reducing backhaul volumes and costs	Post-conference workshops
Lunch				
Afternoon	Pre-conference workshops continue	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	Post-conference workshops continue
Evening functions		Gala Cocktail Party		

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Day One - Tuesday 9th December 2008

08:30 Registration

09:30 Opening Remarks from Chair

09:40 Business card exchange and speed networking

Key drivers for backhaul network investment

09:50 **Business case for improving the backhaul network**

- The limitations of current backhaul technologies in handling increased data volumes
- Assessing the impact on cost of adding TDM lines and using leased lines to manage expanding backhaul demand
- How can operators decouple cost from capacity and lower the price per bit over their backhaul networks?
- Assessing the OPEX and CAPEX of an IP based backhaul network vs. the alternatives

10:20 **The impact of backhaul on the profitability and QoE of next generation multimedia mobile services**

- What is the real potential demand for backhaul hungry services
 - User generated content
 - Mobile TV/video
 - Mobile music
 - Mobile internet
 - VoIP
 - Mobile commerce
- Impact of backhaul on the customer experience of these services: Speed, latency, jitter, security, reliability
- Can these services succeed in the market without improvements in backhaul networks?

10:50 **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, deploy according to backhaul volumes, or wait until LTE?

11:30 Morning refreshments and networking

Meeting the backhaul requirements of 3.5G and beyond

12:00 **Backhauling HSxPA: Experiences to date and future challenges**

- 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?
- The importance of scalability and bandwidth on demand when selecting backhaul systems to support HSUPA

12:30 **Planning backhaul solutions to meet the needs of LTE**

- Timelines for the commercial deployment of LTE
- How much backhaul capacity will LTE-supported services and applications demand?
- Is Carrier Ethernet the only viable solution for backhauling LTE?
- What impact will backhaul costs potentially have on the profitability of LTE?

13:00 Lunch and networking

Migrating to IP/Ethernet backhaul

14:30 **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?

15:10 **Building an all-IP based backhaul infrastructure**

- Assessing costs and timelines for extending IP from the core into the backhaul
- Solutions for aggregating 2G, 3G and LTE traffic over an all-IP network
- How can the quality of existing circuit-switched services be maintained on a packet-based backhaul network
- Lessons from early all-IP deployments: What savings does all-IP generate in reality?

15:50 Afternoon refreshments and networking

16:20 **Employing pseudowires to enable a multi-service convergence on an all IP backhaul solution**

- Supporting legacy TDM, ATM and frame relay services on a packet switched IP/MPLS backhaul network through pseudowires
- Managing synchronisation for legacy TDM over pseudowires
- How to prioritise voice over non-time sensitive traffic to ensure low latency for core services
- Impact of employing pseudowire technology on CAPEX, OPEX and the migration to all-IP

16:50 **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

17:30 Closing remarks and end of day one

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Day Two – 10 December 2008

09:30 Opening remarks from Chair

09:40 **Backhaul solutions for mobile WiMAX**

- Assessing backhaul traffic demand over greenfield WiMAX networks
- What IP-based solutions are available for WiMAX backhaul
- Ensuring scalability of WiMAX backhaul to manage future demand growth
- Challenges of converging GSM and CDMA services with WiMAX over common backhaul facilities

Transport media for mobile backhaul

10:10 **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?

10:40 **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

11:10 Questions and discussion

11:20 Morning refreshments

11:50 **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

12:20 **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

12:50 Questions and discussion

13:00 Lunch and networking

14:30 **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

15:00 **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?

15:30 Afternoon refreshments and networking

Strategic considerations for the move to all-IP

16:00 **Preparing your organization for all-IP**

- What does the move to all-IP mean for roles and relationships and reorganisation 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?

16:30 **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

17:00 Closing remarks and end of day two