## Towards the all service network

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For further details, contact Simon Dieppe on +44 207 747 5407.

## The Millennium Edition: Mobile Data Beyond the Wire

is the New Guide to Wireless Business Solution, edited by the Mobile Data Association

#### **Date & Venue**

The conference is on February 22nd - 23rd 2000 at the Dusseldorf Hilton, Georg Glock Strasse 20, 40474 Dusseldorf, Germany. Telephone +49 (0) 211 43770, Fax +49 (0) 211 4377650.

#### Fee

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# One Phone, One Bill, One Number, One Network

# Fixed & Mobile, Voice, Data Convergence on an

# IP Platform

Exploiting the cost efficiency and application potential of FMC/IP to create the All Service Network.

services

□ Positioning IP as a common platform for the delivery of converged fixed and mobile voice, data and multimedia services

□ Developing a common IP core network infrastructure

□ Predicting how UMTS and 3rd generation mobile data services will impact upon IP facilitated convergence

☐ Identifying and exploiting the key markets for fixed-mobile data

Re-engineering the access network to allow seamless data service transfer across fixed and mobile networks

☐ Creating optimum charging and billing models for converged fixed-mobile IP services

Fixed and mobile operators as Internet Service Portals, content and service providers

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22nd – 23rd February, 2000 The Dusseldorf Hilton, Germany



# Towards converged fixed and mobile voice, dat

#### Conference Day One -Tuesday 22nd February, 2000

Chairman David McGrath

Senior Consultant

**KPMG** 

08.30 Registration over tea and coffee

09.00 Welcome from Vision in Business

09.10 Opening remarks from the chair

#### 09.15 Creating standards towards fixed/mobile convergence on an IP platform

- Assessing the work of the IETF's MOBILEIP Working Group: how will this facilitate convergence at the network level?
- How far is the 3GPP working group towards creating a universal Mobile IP standard that will also facilitate interoperability between fixed and mobile IP services?
- How is ETSI's TIPHON group acting to devise links between the PSTN and cellular networks: what role will IP play?
  - reviewing the future direction of TIPHON WG7 in converging wireless and IP networks
- How will the Parlay Group's open network API allow increased convergence of fixed and mobile services?

#### **Ted Hatala ETSI TIPHON**

## 10.00 The move towards a common IP infrastructure: detailing the business case for utilising IP as a common platform

- Outlining the benefits of a transition to IP
- the creation of open networks to facilitate a proliferation of services
- convergence of services on one platform to facilitate improved network management
- Balancing the risk of moving too guickly towards a converged IP platform for fixed mobile services and not moving at all
  - too quickly compromising traditional reliability
  - too slowly losing out to green field-competitors and new entrants
- Evaluating the possible cost implications of adopting an FMC IP strateav
  - short term - middle term - long term
- Identifying the services that will drive fixed mobile convergence on an IP platform
- Overcoming the difficulties of mapping together the different business models of mobile and fixed operators
- Is the technology currently available to support full FMC on an IP

#### **David McGrath**

Senior Consultant

#### **KPMG**

- 10.45 Morning tea and coffee for delegates and speakers
- 11.05 Identifying the key markets for fixed-mobile converged
  - Ensuring that the benefits of FMI data services are communicated to the right potential markets
  - Selling the concept to large corporate customers:
    - Cost control benefits
    - Increased streamlining of administration
    - Greater savings from one-stop shopping, corporate discounts, integrated billing and customer care
  - Stressing the advantages of FMI services to the SME and individual business user market:
  - Remote access
- Unified messaging
- VPN access
- To what extent will the residential market demand data FMI services?

#### **Paul Ferlov**

Head of Business and Product Development

- 11.50 Integrating IP into the mobile network: how Sonera has approached the all service fixed and mobile network
  - Integrating mobile IP at the application level:
  - Next Generation IP at the data network level
    - WAP
  - Ensuring QoS within the mobile IP environment
  - Integrating mobility and mobile IP: a Sonera Case Study
  - Ensuring end-to-end management of the 3rd Generation network in the mobile/fixed network element
  - How is increased mobility being built into the fixed network:

#### Mika Uusitalo

Head of Research

#### **SONERA**

12.35 Lunch for speakers and delegates

#### 14.00 One phone, one number, one bill, one network: the incumbent mobile operator's view

- To what extent will IP be the facilitator of convergence?
- · Will convergence take place at the:
  - IN laver? – terminal laver? application layer? - core network layer?
- Fixed/mobile convergence vs. fixed/mobile integration vs. fixed/mobile substitution: which strategy will help to create the largest increase in the customer base?
- Is it a case of gaining new customers or offering enhanced services to existing clients to reduce churn?
- Assessing the role of current standards and technologies on the road to the "one phone" concept:
- HSCSD
- EDGE
- What is the optimum path to the concept of "oneness": one phone, one bill, one point of contact?
  - fixed-line operator acquisition?
- network rebuild?
- leased fixed lines and service integration
- substitution strategy?

#### Stanley Chia

Global Technology Director

#### **AIRTOUCH CELLULAR**

#### 14.45 Developing a common IP core infrastructure: overcoming the technical limitations of IP supporting fixed and mobile services

- Reconfiguring the network to cope with the change in usage patterns
- Accurately forecasting demand and laying down adequate
- Successfully integrating mobile elements: how will the following technologies and standards facilitate convergence
  - GPRS - WAP - FDGE
- Evolving the security framework for mobile nodes Using IPv4 and IPv6 to roam seamlessly between different IP networks
- Assessing the options for transport layer configuration: IP over ATM vs. ATM over SDH vs. IP over WDM

#### Frederic Paint

FMC Project Manager

#### **TELENOR**

17.25 Afternoon tea and coffee for delegates and speakers

#### 15.50 Overcoming the technical challenges of transmitting VoIP in the air interface

- Examining the work of standards groups in their task to reduce packet loss and compress packet length in mobile IP networks: - ETSI TIPHON - IETF - 3GPP
- Devising a more efficient addressing system for mobile IP data and voice
- Converting GSM/CDMA into IP at the gateway in the fixed
- Replacing Mobile Switching Centres (MSC) by packet switches in the core network
- Changing the role of the base station to act as a service node
- Implementing functionality to control traffic flow
- Developing the optimum air-interface for converged VOIP
- In-building scalability and connectivity across networks

### **Nigel Gilhespy**

IP Systems Marketing Manager

#### **NOKIA**

#### 16.35 Managing and delivering QoS for fixed-mobile services delivered over an IP platform:

- Highlighting the major areas of concern in providing QoS for mobile IP services
- congestion and bandwidth reservation
- application and fixed line requirements matching fixed-line QoS
- Assessing the strengths and weaknesses of the potential solutions to these QoS concerns : RSVP
- Diff-Serve - Int-serve To what extent will the advent of UMTS improve QoS of IP
- services in the environment? · Practically packaging the QoS differential between fixed and
- mobile networks in the provision of converged IP services will the customer accept differential QoS between fixed and
- mobile services? Quality of Service negotiation to ensure the most appropriate access method is used
- Offering a single, integrated SLA for converged services: can cellular QoS be guaranteed as part of the "one phone, one network" package?

#### Johan Losman

Manager, Business Development

#### **EHPT**

17.25 Close of Conference Day One

## FMC is dead....ld

The last few years have s change in the FMC deba seemingly ebbed away fi argument, more time and invested in the practicalit advancement, fixed mob network acquisition. The advancements to facilitate convergence, and even i network level, has morethe will to drive converge waned.

But despite this move av consumer demand for co one phone, one bill, one point of contact, remains and other data services I increasingly important pa customer's daily routine, converged voice and dat services will become an pit of opportunity. And the enters the FMC equation

Cited by industry leaders thing to hit the FMC deb IP offers a wealth of serv applications to the consu efficient means of service service provider. More s act as the glue to bind to mobile, voice and data n the utopian 'all service' r

This conference is the first explore this exciting new detailed presentations from the field, the event is des

- ☐ The definitive busines why to invest in fixed, data convergence on which markets to targ services and applicati primary drivers.
- Solutions to the techn associated with creati network infrastructure QoS, delivering VoIP and re-engineering th to provide seamless of the fixed/mobile interf

Attend this confere the rebirth of the

This programme is correct at the time of going to press. We reserve the right, however, to alter or cancel the event due to circumstances beyond our control.

## data and multimedia services on an IP Platform



## ....long live FMC

ave seen a marked debate. As the life has ay from the FMC e and money has been icalities of mobile data mobile substitution and The technological cilitate fixed mobile ven integration at the ore-or-less arrived, but vergence forward has

e away from FMC. or converged services, one number and one nains. As the Internet ces become an nt part of your tine, the demand for d data, fixed and mobile e an almost bottomless and this is where IP ation.

ders as the biggest debate in recent years, services and consumer, and a cost ervice delivery to the ore significantly, IP can nd together fixed, ata networks to facilitate ce' network.

e first of its kind to new opportunity. With ns from key players in s designed to offer you:

siness case detailing xed, mobile, voice and e on an IP platform, target, and which lications will act as the

echnical hurdles reating a core IP cture, guaranteeing oIP in the air interface ng the access network ess data service across nterface.

erence and witness the FMC strategy

#### **Conference Day Two** Wednesday 23rd February, 2000

Chairman Robin Duke Woolley SCHEMA

08.50 Early morning tea and coffee

09.10 Opening remarks from the chair

#### 09.15 How will the advent of UMTS affect the concept of IP facilitated convergence?

- Will UMTS be a driver for fixed-mobile convergence or substitution?
- To what extent can the ITU Q.1701 functional communications model for UMTS be mapped onto existing network architectures to facilitate FMC?
- Incorporating broadband ISDN and IP into the UMTS network to further FMC
- How will current converged networks have to evolve to match network requirements?
- Ensuring that fixed networks are able to access and fully support UMTS networks
- Providing full mobility management capabilities in the fixed network to enable convergence
  How will mobile networks have to be evolved to facilitate
- convergence?

   the creation of a more open network

   better connection through different access methods
- improved service control across network boundaries
   how will UMTS compete against the bandwidth capacity of ADSL?
- Assessing the regulatory implications of UMTS and it's effect on the "one phone, one network" concept?

#### **Geoff Richman**

Technical Area Leader. Network

Intelligence, UMTS and FMC

Chairman NA6 UMTS Task Force

Chairman OCG VHE Group

#### 10.00 Interconnecting fixed/mobile IP VPNs to offer mobility to the corporate customer: half-way house or long-term strategy?

- essing the growing corporate demand for mobile handset IP
- Will mobile IP VPNs be able to offer the full functionality of fixed line VPNs? conference calling
  - short-code dialling automatic call return
- · Overcoming the non-interoperability of differing global mobile networks
  - negotiating roaming agreements
- How will the mobile and fixed elements of the IP VPN be interconnected?
  How different technologies and standards will facilitate the

- communicating the cost advantages of integrating mobile VPNs into the corporate network
   To what extent are fixed/mobile IPVPNs the precursor to the "one"
- phone, one number, one network" product?

#### **Robert Bagley**

**CFO** 

## **WIRELESS TELECOM (USA)**

10.45 Morning tea and coffee for delegates and speakers

#### 11.05 Re-engineering the access network to facilitate seamless data services transfer across fixed and mobile networks

- Determining the additional demands that Internet and multimedia services will have on the local loop
  - asymmetric traffic
  - unpredictable peaks and troughs
- security

- security
   Implementing interfaces to moderate between the different data speeds in different access speeds
   Ensuring QoS at the local loop level
   Are there any solutions to the bandwidth limitations on the mobile spectrum?
- will UMTS's 2M/Bit capacity be enough to offer customers seamless data and multimedia services: overcoming capacity problems when: roaming
- bandwidth demand is at a high level
   Can ADSL be incorporated into the mobile system to allow greater bandwidth and fixed network QoS to converged data services?

#### **Graham Phillpott**

# Access Strategy Manager MARCONI COMMUNICATIONS

## 11.50 Integrating IN and IP to facilitate fixed-mobile convergence on an IP platform Overcoming the challenges of interworking wireless and wireline

- networks for seamless IN/IP services

   what progress is being made for the convergence of different
- call modes and processes?

  Examining how OSS need to be upgraded and integrated to ensure the efficient support of converged services: service provisioning
  - service creation service management
- interoperability customer service and billing
- Examining how IN service capability will facilitate traffic flow between fixed and mobile networks in terms of both IN/IP and

- fixed and mobile services
- Determining how IN and IP convergence will evolve to facilitate the application of IN functionality to integrated fixed and mobile Internet services
- Who should control the IN/IP control capacity in shared networks: fixed or mobile operators?
- What role will IN play in the routing of IP traffic into different network architectures?

#### **Robert Duncan**

Network Engineering

**US WEST WIRELESS** 

12.35 Lunch for speakers and delegates

## 14.00 Creating the optimum charging model for converged

- fixed and mobile IP services

  Comparing the strengths and weaknesses of charging by:

  subscription airtime packet volume
- How can the usage based model be adapted to fit a mobile IP environment?
- building QoS into the usage based model
   Are 'free' services an option?

- Are rree services an option?

  Devising strategic charging models to increase revenue from combined fixed and mobile IP services

  Using IP tariffing as a means of merging the tariffing models in the mobile and fixed sectors

  Developing a charging strategy for applications that use third party content: how should revenue be shared with external content providers. content providers
- Establishing pricing mechanisms for service bundles that run over
- different delivery systems
  Exploiting software agents to reduce the complexity of charging for fixed-mobile IP services?

#### Peter Litzén

Senior Product Manager

**EHPT** 

## 14.45 Billing, payment and clearing for converged fixed-mobile

- IP servicesIdentifying the key challenges to the provision of one bill for fixed and mobile services?
- Examining the different levels of convergence and their implications on customer care and billing

- How do the billing, payment and clearing methods differ between fixed IP and mobile services?

   how can they be more closely aligned?
  Delivery mechanisms for IP service billing: to what extent can this be built into an Internet service itself?
- Examining the implications of roaming and ISP interconnection in the mobile IP environment
- What will billing become in the mobile world?

#### Jerôme Tassel

## Researcher BT ADVANCED COMMUNICATIONS TECHNOLOGY **CENTRE**

(Subject to company activity)

17.25 Afternoon tea and coffee for delegates and speakers

#### 15.50 Assessing the role of the content and service provider in the mobile Internet chain: how will this impact on the development of the all service network?

- Evaluating the arguments for operators developing proprietary content vs. focusing on their core business:
- to what extent has this already been done in the fixed environment?
- Developing mobile Internet services using a service provider to Developing mobile internet services using a service provide package content from different sources

  Determining which services are really useful to end-users:

  how will these differ from fixed IP and Internet services?

  Structuring long-term partnerships and alliances for mobile
- Internet Content provision
- Utilising WAP to extend the content providers business: delivering personalised content directly to the mobile device Is there such a thing as a "killer application" in the fixed-mobile IP environment?

#### **Malcolm Lewis**

Product Development Manager

#### **SEMA GROUP**

#### 16.35 Positioning the telco and mobile operator as an Internet service portal to prevent loss of revenue to other commercial sectors

- Detailing how IP fixed-mobile convergence can provide new ecommerce opportunities to the telco and mobile operator
  How are portal operators threatening the traditional market areas
- of the telco company?
  Which contet providers from which sectors represent the biggest threat?
- threat?

   banking insurance the retail sector ISPs
  Assessing the business case for developing own-brand portals:

   what are the revenue incentives?

   what degree of investment is needed?
- Developing the optimum marketing strategy for own-brand portals Utilising WAP in the mobile environment to facilitate the creation of cellular portals: how might this impact on the concept of
- convergence?
  How might billing mechanisms be incorporated into the Internet

## **Robin Duke Woolley**

**SCHEMA** 

17.20 Chairman's closing remarks

- 17.25 Champagne draw
- 17.30 Close of Conference

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