SA Oxford Workshop Summary to T#10

Bangkok, 6-8 December 2000

TSG-T Vice Chairman: Kevin Holley,
BT Wireless

TP-000199

Agenda

- Background to meeting
- Presentation Summary
- Terminals Presentation from BT
- Next Steps

Background

- TSG-SA#9 discussed the vision for the IP Multimedia Subsystem
- No common view amongst all participants
- Workshop set up to examine different visions

Presentation Summary

- UMTS Forum: IMS services must generate new revenue, focus on:
  - Multimedia Messaging
  - Customised Infotainment
  - Access to Internet/Intranet
- Ericsson: demonstration of “virtual reality” conversation
- Nortel: need for a range of APIs throughout the network
- Motorola: avoid heavy 3GPP-specific maintenance by encouraging use of IP techniques
- AT&T: offer services based on voice-plus
- BT: need for IMS to support voice, roaming to CS, think about cross-domain services
- Nokia: interworking between toolkits?

Terminal Issues for IP Multimedia

extract from BT paper, slightly updated

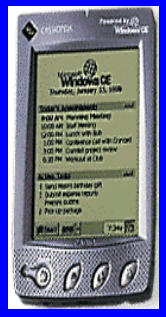
Objective

Harness growth of IP based applications

- develop UE architecture to best support this, but carefully taking into account its impact
- use IP lower layer techniques within the UE, between components (objects) of the UE, but not to the exclusion of other techniques
- Support of IP based applications, applications
  - e.g. IM world uses SIP (CS world uses 04.08)
  - e.g. IM world uses MMS (CS world uses SMS)
  - e.g. IM world uses IP control (CS world uses AT commands)

What is the Terminal?

PC?



Bluetooth PDA?

Mobile Equipment?

Car kit?

Headset?

What do we support?

- We have to support multiple devices (objects) at the user end
- Each device needs to exist in IP space
  - each device needs its own IP address
  - each device needs IP connectivity to remote Internet or Intranet hosts, enabling the full range of IP based services to be offered
- Each device shall be able to initiate Multimedia Sessions via the MT
- There is a need for IP routing capability within the UE

How does the PDA connect to the MT?

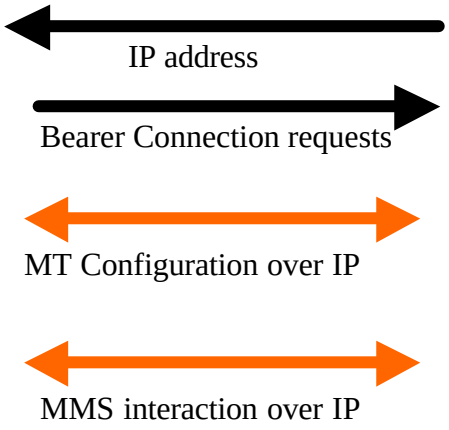
- Physical Connection (e.g. Bluetooth)
- Obtain IP address for PDA, e.g. DHCP
- IP based communications now possible

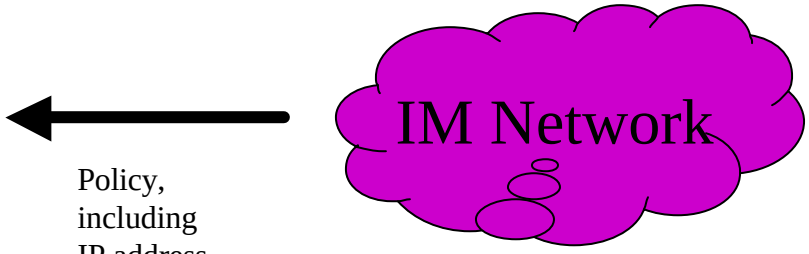
- These are already defined elsewhere, e.g. Bluetooth specs.; IETF specs.

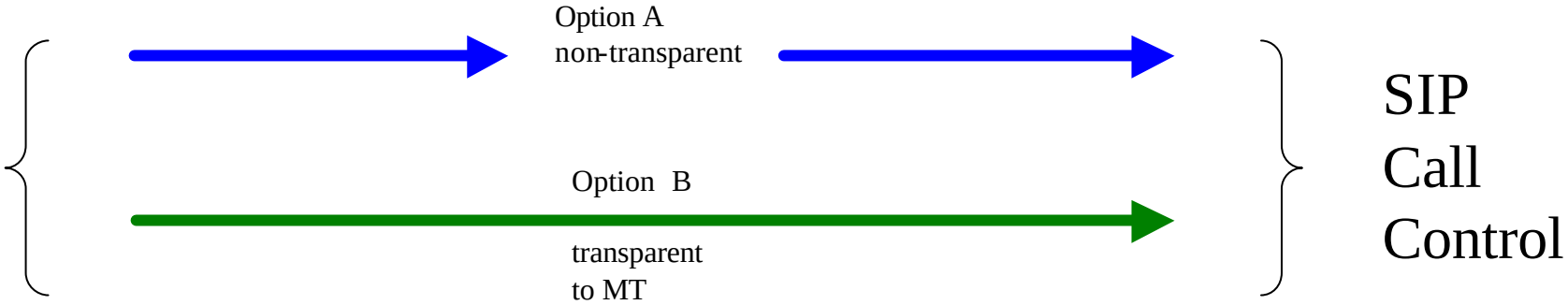
What else is needed?

- IP based commands to the ME ***(TSG-T)***
  - Provides AT command functionality
  - Multiple Sessions Possible
- Network “programmes” ME ***(S2 to consider?)*** for:
  - Prevention of Denial-Of-Service attacks on the network (e.g. allowed frequency of call attempts)
  - Other “policy” requirements (e.g. IP address range to use for UE objects)

Calls from UE objects (1)







Calls From UE Objects (2)

IP address

Bearer Connection requests

MT Configuration over IP

Network capability information

SMS or MMS interaction over IP
(depends on network capability)

Information
on network
capabilities

CS Network

Default Policy
Settings Apply

SIP

Basic CC over IP
(today's AT
commands converted
to IP-based control)

Option A

04.08 CC

Option B

Further Study

A possible scenario described in this slide pack provides a basic concept, BUT:

- Do we need policing of **C**all **C**ontrol at the mobile? ***(S2)***
  - If “mobile-enhanced” SIP requires identification of the ME or USIM, a PDA would need to send CC via the ME in order for the ME/USIM identification to be securely attached
- What is the USIM interaction? ***(TSG-T)***
  - e.g. Services like Fixed Dialling number?

Further Study

Continued:

- How does the external device indicate QoS requirements to the MT ***(S2)***?
- How to authenticate external devices?
  - Perhaps already solved in DHCP?
- How to secure external links?
- How to get the IETF to develop protocols?
  - For transport of MMS, SMS, MT configuration etc. over IP

Terminal Issues for IP Multimedia

end of extract

Next Steps

- TSG-SA to examine how to move forwards next week
- UMTS Forum will be holding a follow-on Workshop on the vision for IP Multimedia services 1st Quarter 2001
- TSG-T to consider UE architecture paradigm:
  - multiple serial links?
  - local IP-based network?
  - Something else?
  - Security issues - see LS from T2 in TP-000xxx