



# Draft Summary of 3GPP Future Evolution Workshop October 2001

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#### **Outline**

- Basic assumptions
- High level requirements
- Focus Areas
- Service Examples
- Summary







## Basic assumptions

- Future is evolution not revolution
- Where possible, re-use existing techniques/technologies (potential through cooperation with external fora)
- Stabilise before extending
- Improve requirement setting, e.g., include commercial considerations
- Separate fundamental technology (evolutionary part) from dynamic applications (to ensure rapid development of applications)



## High level requirements (1/3)

- New service/functions shall provide new streams of revenue
- Simplicity for the end user
- Simplicity of network Optimisation and cost reduction
- Limit the number of options
  - not several services to offer roughly the same service
  - reduce number of competing toolkits
  - not several techniques to provide same service
  - reduce the number of options within protocols



## High level requirements (2/3)

- Define Generic APIs which allows application creation. The APIs should include interface with underlying QoS capabilities
- Create a simple IMS interface towards external networks
  - User access
  - Service interworking
  - Application delivery
- Improve O&M and customer care possibilities
- Improvement for PS domain (e.g., traffic increase)
- Radio Access improvements, e.g., improved spectrum efficiency, quality and coverage



## High level requirements (3/3)

- Utilisation of alternative access technologies, e.g., for hotspot coverage (e.g. WLAN, HIPERLAN, 802.11 a+b, Bluetooth, new technology)
- Seamless service provision across environments
- Exploitation of inherent network functions such as security, authentication billing etc.
- New functions needs to include
  - Charging
  - Security
  - O&M with support for customer care
  - Testing



#### Focus areas

- Enhancements of IMS
- Optimisation of dual-mode UTRAN-GERAN
- Wireless LAN Integration/interworking
- Multimedia Broadcast and Multicast
- Infrastructure sharing
- Utilisation of extension bands
- Open & secure terminal Architecture
- Support for Corporate Network
- Support of applications scalable to the terminal capability and environment (e.g. XHTML, J2ME, scalable audio/video)
- Improved QoS handling for realtime



# Service Examples (1/3)

- Financial
  - Micropayment
  - Mobile banking
  - Shopping
  - Stock Trading
  - Recognition techniques
- Location Based
  - Advertising
  - Find a friend, my car, restaurant etc.

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# Service Examples (2/3)

- Control and Monitoring
  - Telematics
  - Remote control of appliances
  - Machine to machine communication
- Multi-user applications
  - Video chat
  - Game highlights
  - Shared experience
- Multimedia
  - Voice/multimedia over IP
  - Adult chat line
  - Multimedia Broadcast and Multicast Service\*



## Service Examples (3/3)

- Information
  - Live news
  - Transportation
  - Preload info prior to travelling
- Distributed Speech Recognition (DSR)\*
- Digital Rights Management (DRM)\*
- Generic user profile\*
- UE functionality split\*





# Summary

- Be realistic correct and complete the existing standard before any major new changes are made
- To fully utilise the existing standard, the end-to-end and end-user aspects needs to be in focus
  - Improve the support for 3rd party applications
  - Simplicity for the user
  - Better mechanism for customer care
- Reduce deployment cost and options
- Spectrum efficiency needs to be kept in mind

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