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Mobile telecommunication networks

IMT-2000

ITU/BDT Regional Seminar on Broadband Wireless Access (BWA) for CIS, CEE and Baltic Countries

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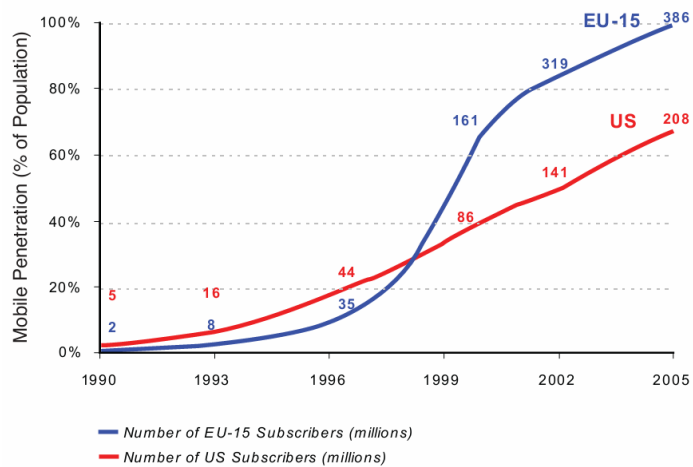


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Mobile Subscriber Penetration Evolution



Source: Merrill Lynch, Wireless Matrix, Ofcom, CTIA



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Global Core Specifications of IMT-2000 in Recommendation ITU-R M.1457

- **IMT-2000 CDMA Direct Spread**
- **IMT-2000 CDMA Multi Carrier**
- **IMT-2000 CDMA Time Division Duplex**
- **IMT-2000 TDMA Single Carrier**
- **IMT-2000 TDMA Multi Carrier**

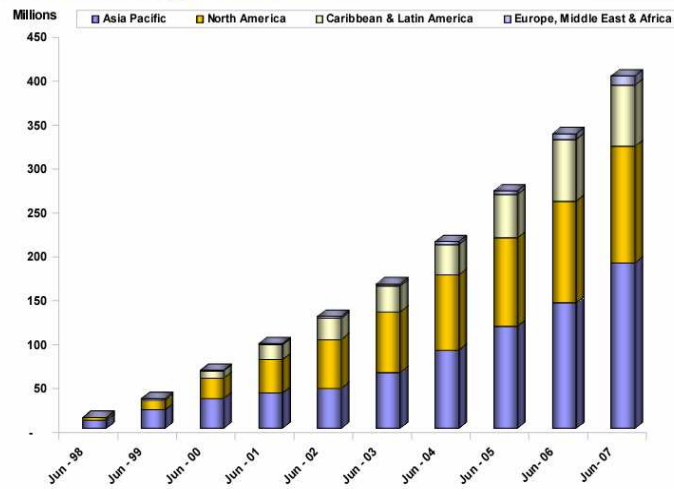


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CDMA Subscriber Growth History: June 1998 through June 2007



Note: prior to March 1998 the Caribbean and Mexico are included in North America; after March 1998 they are included in Caribbean & Latin America
Reported by the CDMA Development Group
June 2007



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Fast Facts from UMTS Forum

(23/11/2007)

Global W-CDMA [including HSPA] Subscribers: 178 923 069

Global HSPA Subscribers: 010 586 803

Number of WCDMA Networks Launched: 182

Number of HSPA Networks Launched: 116



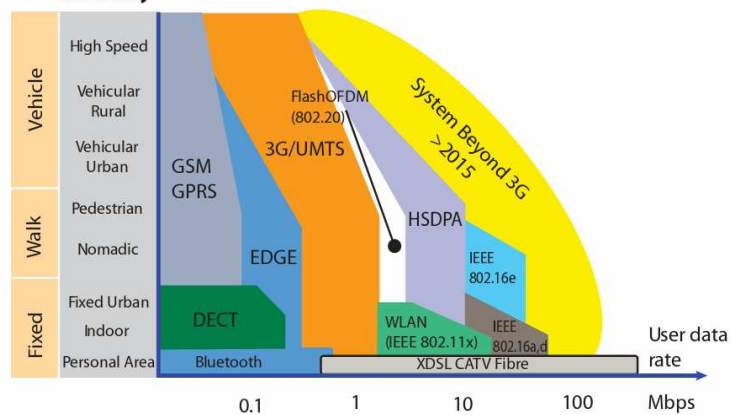
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Evolution to higher bitrates drives convergence between fixed/mobile systems and the Internet

Mobility



Source: Siemens



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IMT-2000 Network Aspects

- **Recommendation Q.1741.4 “IMT-2000 References to Release 6 of GSM evolved UMTS Core Network”**
- **Recommendation Q.1742.6 “IMT-2000 References (approved as of 31 December 2006) to ANSI-41 evolved Core Network with cdma2000 Access Network”**



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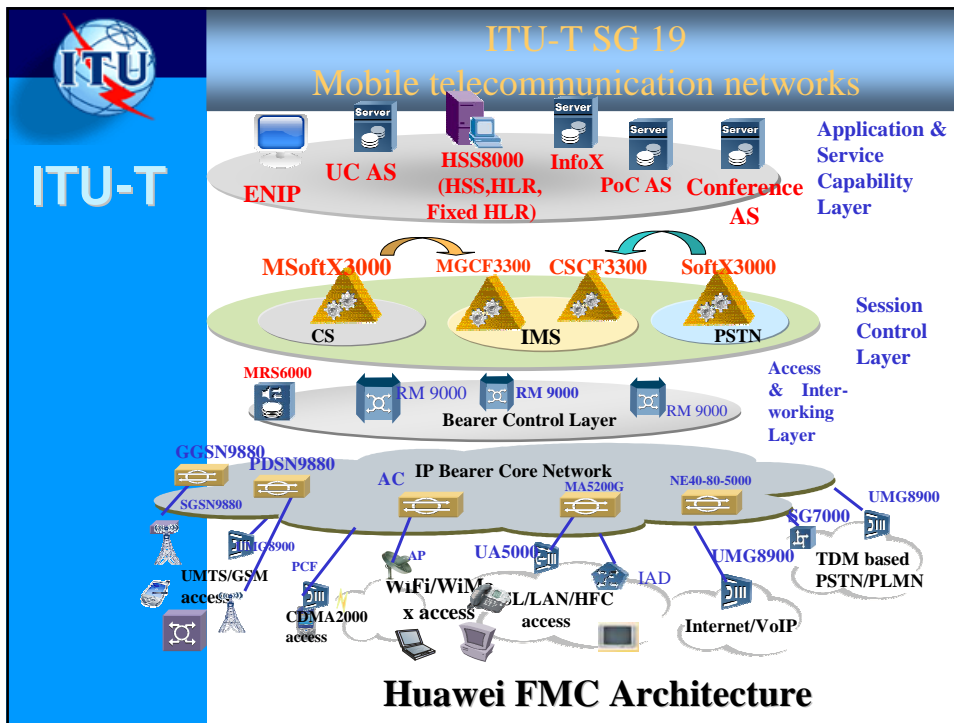
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Core Networks: Circuit switching vs packet switching

- PS: more effective use of capacity
- PS: more flexible QoS handling

General overview of NGN: ITU-T
Recommendation Y.2001



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The problem!

Mobile networks operators must protect their investments in the existing network infrastructure

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Possible way to solve:

- Proposed Study Question Q.X/19:
“Step-by-step migration of existing mobile telecommunication core networks towards NGN”



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Thank you for your kind attention!