

ITU-T / ATIS Workshop

“Next Generation Technology and Standardization”

Las Vegas, 19-20 March 2006

IMS and the Fixed Network

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ERICSSON 

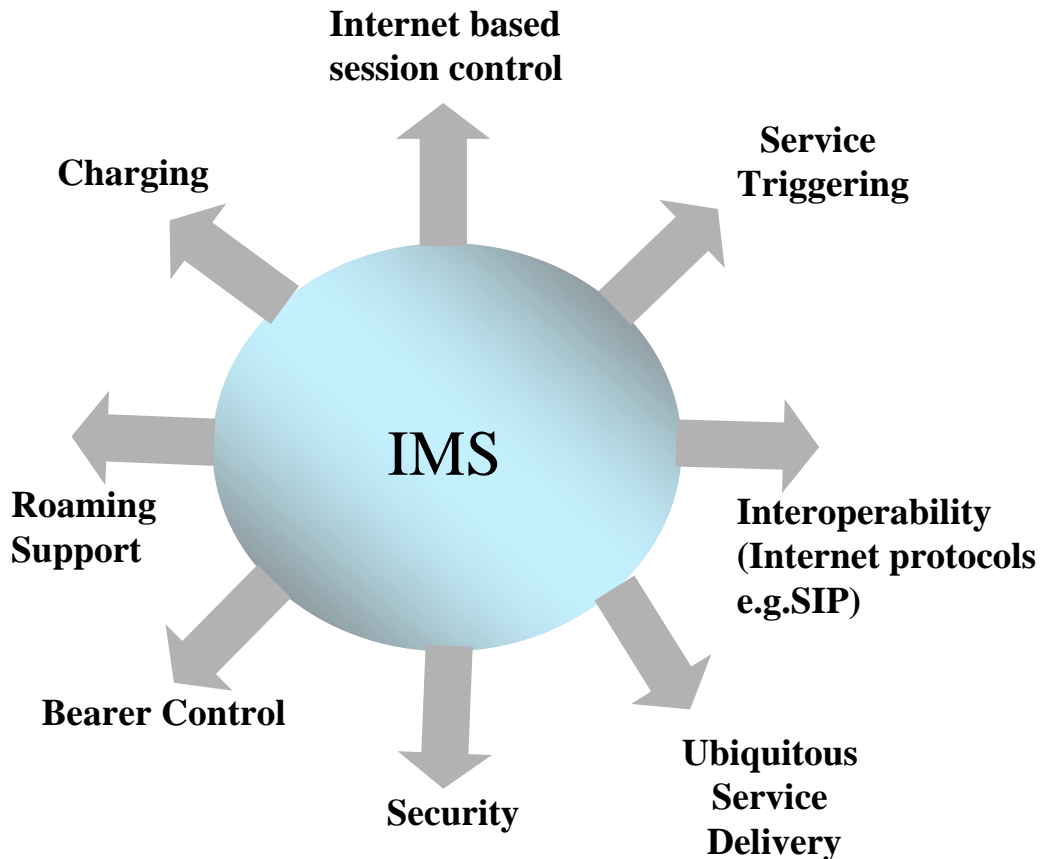


IMS from the Mobile perspective

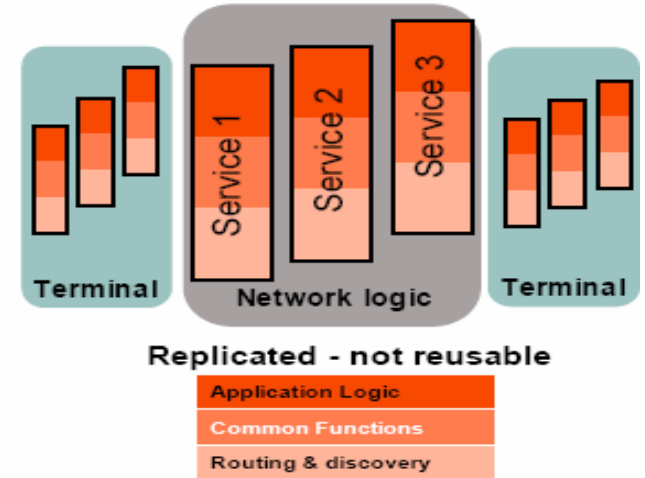
- 3GPP commenced work '99 to define an all IP core network
- From this the IMS evolved, providing:
 - Core network elements for provision of multimedia services
 - Session Control capability (IETF SIP) utilising multimedia bearers and the Packet Switch Domain
 - Platform for 3G global roaming
 - Convergence of, and access to, voice, video, messaging, data and web based technologies.



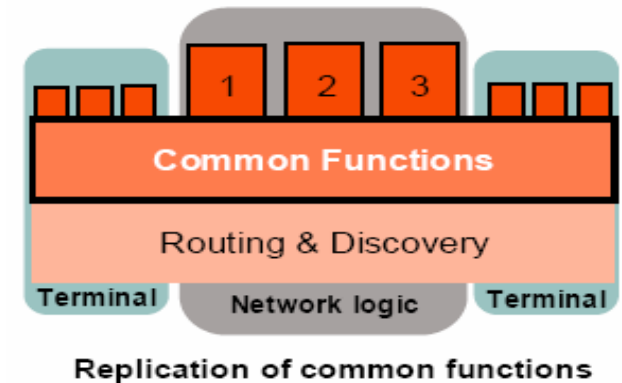
IMS = common functions + service enablers



Vertically integrated services



Horizontal integration



Fixed Network Environment Requirements

- o legacy systems
 - PSTN/ISDN/IN
 - Terminals (fixed and moveable)
- o Access Technologies
 - xDSL
 - Cable TV
 - WLAN
 - Wimax
 - IP
 - etc



Fixed Network Environment What's Missing?

- o Alternative authentication procedures e.g. to non I-SIM based cpe
- o Relax SIP constrains e.g. compression
- o Location management needs additional signalling information
- o Different resource reservation at the access
- o Fixed network access security
- o Support Network Address and Port Translation (NAPT)



Signalling and control perspective (1/2)

- Support for xDSL specific info e.g.
 - P-CSCF discovery (e.g. addition of IPv4 mechanism)
 - xDSL specific coding rules for the P-Charging-Vector and P-Access-Network-info header
- SIP timers used between the UE and P-CSCF
 - IETF timers used instead of GPRS specific timers
- P-CSCF procedures for supporting NAPT-(PT)



Signalling and control perspective (2/2)

- o Relax SIP constraints at UE level e.g:
 - Optional support for SIP compression (rfc3320, rfc3486)
 - Optional support for Media-Authorization (rfc3313)
 - Optional support for Precondition (rfc3312)
- o Addition of SIP capabilities in support of supplementary services e.g.
 - Call Diversion
 - Message Waiting indication
 - XML/MIME for AoC
 - MCI
 - CCBS etc...

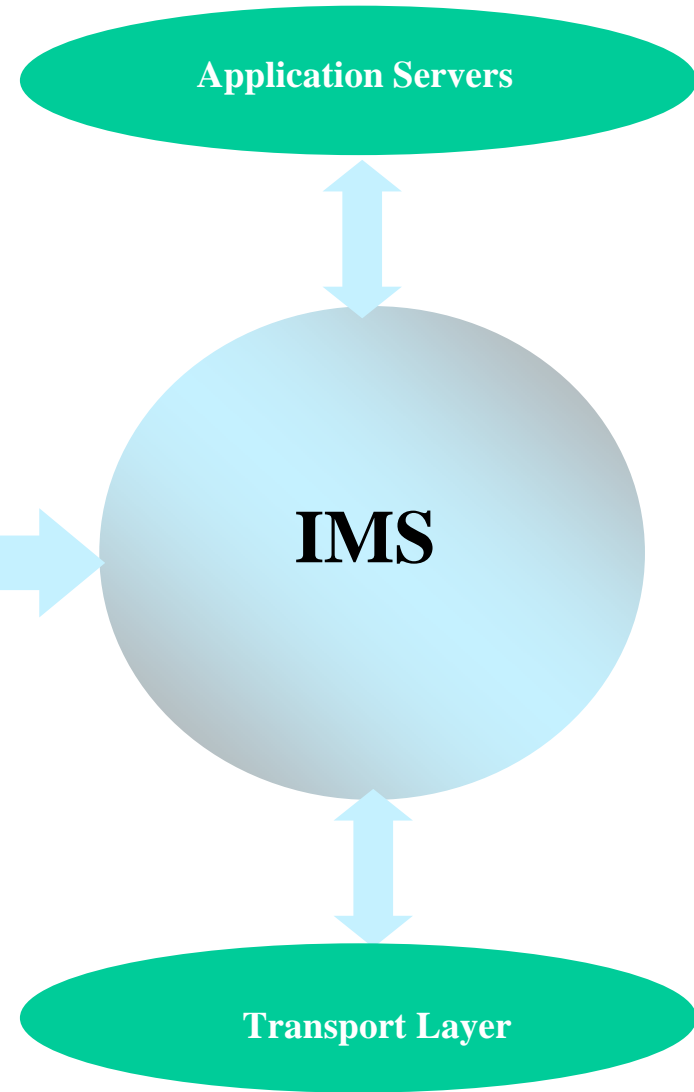
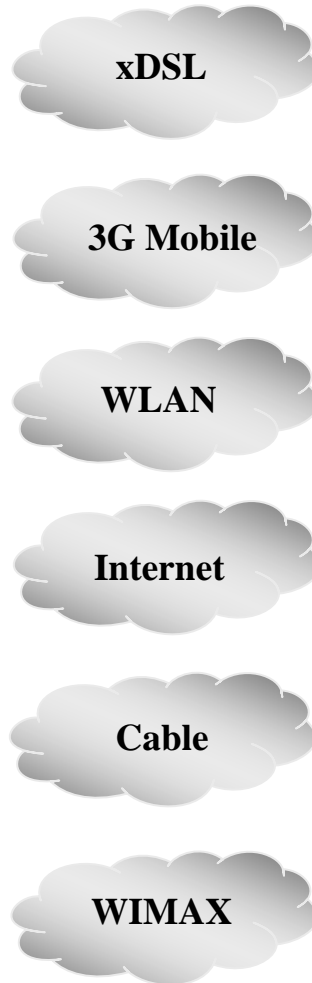


Convergence

CPE Equipment



Access Networks



Conclusion

- IMS architecture is access independent butadditional procedures signalling capabilities need to be added to support specific fixed network requirements
- Work to define these enhancements currently in progress in Study Group 11 and 13.
 - FGNGN output document “IMS for Next Generation Networks (IFN)”



Thank You

Background material



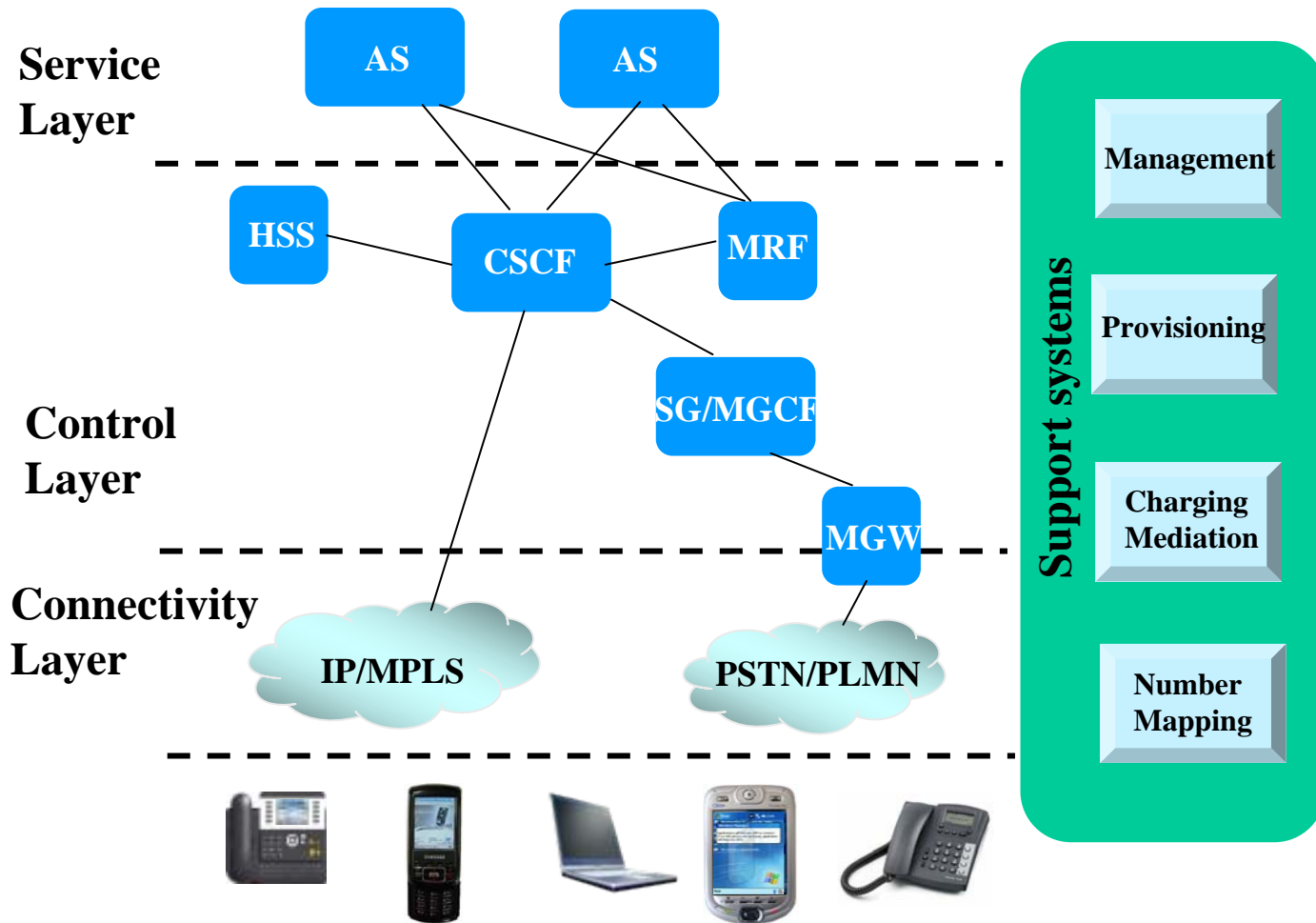
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11



IMS Simplified Architecture



IMS Architecture in the NGN Environment

