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Handover Requirements between UMTS and GSM or Other Radio Systems (UMTS 22.29)

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Status: history

- Scope:Service and operational requirements of:
  - Handover
  - Roaming
- 1st draft presented at SMG1#62 Rome
- Handover ad-hoc 1st week Jan
- Present version 'acceptable for presentation to SMG, 3GPP', becomes V1.0.0

Handover: interoperability

handover possible?	to UMTS	to GSM-cs	to GSM-GPRS	to IMT2000 ≠ UMTS
from UMTS	1 (same-operator) x (other-operator) FDD+TDD mode	1 (same operator) x (other operator)	1 (same operator) x (other operator)	x
from GSM-cs	1 (same-operator) x (other-operator)	oos	Oos	Oos
from GSM-GPRS	1 (same-operator) x (other-operator)	oos	oos	Oos
from IMT2000 ≠ UMTS	X	oos	oos	Oos

oos = out of scope of UMTS specifications

1= supporting standards required for UMTS phase 1

x= supporting standards required, not necessarily for phase 1

Handover- service requirements

- Security should be at least as good as security of target system

- Intra operator handover in phase 1

- Service capabilities in UE should allow creation of 'handover aware' service
  - eg SoLSA- like behavior
  - QoS negotiation
  - Fax retransmission/completion

Services

- Speech GSM<->UMTS
- GSM Data/ GPRS <-> UMTS data/multimedia
- Cell broadcast: no requirement
- GSM USSD<-> UMTS USSD (limited scope)
- Fax: no standards required [but service creation capabilities required]

Handover: operational requirements

- Should allow UMTS in 'sea of GSM' but not exclude other possible deployments

- Operator should be able to optimise UMTS network to limit impact of GSM handover
  - so called 'slotted mode' proposed by SMG2 may possibly impact network efficiency

- Standardise service capabilities in UE so applications can react to handover

Reservations concerning current document

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- 22.29 contains service requirements for roaming.

- 22.29 requires the development of *standards* ,but does <u>not</u> mandate *implementations* (eg systems do not have to support GSM->UMTS h/o). Should it also mandate?

- Should networks be allowed to optimise?

Conclusion

- 22.29 has had intensive review within SMG1

- Ready for consideration by other groups, such as 3GPP

Lessons from Electronic Meeting

- The handover ad-hoc, ETSI's 1st formal cyberspace meeting, was a positive experiment in this technique, and shows the way forward
- Electronic meetings can work, but
  - must have definite objective
  - must have equal status to other meetings
  - take longer elapsed time, but leave delegates free for other activities