

Agenda Item: 10.6.1
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Title: UMTS HANDOVER TO SECOND GENERATION SYSTEMS
Document for: Discussion, Decision

INPUT TO UKTAG SUB GROUP MEETING ON 9 MARCH 1999

1. GENERAL REQUIREMENTS

The issue of handover between third and second generation systems has been considered in standardisation groups such as ETSI SMG. In the discussions it has been suggested that such handover should only be specified for Phase 1 UMTS in the case where the third and second generation operator are the same company. However in the case of handover between UMTS and GSM it is considered that this should be specified for Phase1 both for the case where the two operators are the same and where the two operators are different.

This is particularly important in the early phase of UMTS to present a level playing field for new entrants relative to existing operators. To specify this feature only for the case where the two operators are the same would give an unfair advantage to existing operators and could be subject to a challenge under competition law.

Therefore the general requirement is for UMTS to be capable of performing handover between a UMTS system and second generation systems such as GSM. This is required for Phase 1 UMTS specifications and shall cover the situation where the UMTS and the second generation systems are operated by the same operator or by different operators.

2. NETWORK SELECTION

The network selection mechanism shall allow a preference to be set for selecting either the third or second generation system when both networks are available. This preference may initially be set by the network operator or service provider but must be capable of being changed by the user.

As this feature is likely to be used in areas where the third generation system has fringe coverage, a mechanism will be required in the network selection algorithm to prevent the terminal continually switching between networks.

3. AUTHENTICATION ON HANDOVER

When there is handover between second and third generation systems operated by different operators an authentication of the user may be required. The specifications should therefore provide authentication on handover. However this should allow the operator concerned to set the frequency of such authentications. It will be a decision for the operator concerned as to when to perform authentication.

4. CHARGING

It is assumed that charging arrangements will be a commercial consideration between the operators involved. However where handover takes place between different operators the specifications need to allow for the generation of appropriate event and billing information to allow the call to be billed between operators.