3GPP TSG SA WG2 Architecture — S2#45 **REPORT**
4 - 8 April 2005
Beijing, China

Source: **Secretary of 3GPP TSG-SA WG2**

Title: **Report of SA2 meeting #45**

Status: **Approved at SA WG3 meeting #46**

The Forbidden Palace Courtyard, Beijing, China

Contents

1 Opening of the meeting

The SA WG2 Chairman, Mr. M. Olsson opened the meeting which was hosted by Huawei Technologies Co., Ltd, in Beijing, China. The Hosts welcomed delegates to Beijing and provided general information on the meeting organisation and reported that a social event had been arranged for Wednesday 6 April at 18.30.

The SA WG2 Chairman announced some potential Joint meetings in addition to the already planned meetings of SA WG2.

OMA Broadcast, 3GPP WGs, 3GPP2 WGs on 23 May 2005.

TISPAN Workshop identified need for a joint meeting to discuss TSs, July 12-13 2005.

System Architecture Evolution: Joint meetings with RAN WGs with RAN Long Term evolution to discuss functional division of the work between SA WG2 and RAN WGs. May Athens, end of May with TSG RAN. End June/Beginning July RAN WGs may be invited to join SA WG2 and SA WG2 to join RAN WGs at their meetings. Potential late September joint meetings also under discussion.

A joint session with SA WG1 was planned for Monday 4 April in the afternoon. CSI drafting group and SA WG1 delegates to meet Tuesday 5 April.

2 Approval of the agenda

TD S2-050642 (Revision of S2-050528). The Draft Agenda for the meeting was provided by the SA WG2 Chairman and was reviewed. There was a need to adjust the agenda with the documents that have been received and to improve the scheduling of the parallel groups. The agenda was revised in TD S2-050789 to adjust the schedule for the parallel sessions. and the final schedule was provided in TD S2-050907 which was noted.

2.1 IPR Call Reminder

The chairman made the following call for IPRs, and asked ETSI members to check the latest version of ETSI's policy available on the web server:

> The attention of the delegates to the meeting of this Technical Specification Group was drawn to the fact that 3GPP Individual Members have the obligation under the IPR Policies of their respective Organizational Partners to inform their respective Organizational Partners of Essential IPRs they become aware of.
> The delegates were asked to take note that they were thereby invited:
> - to investigate whether their organization or any other organization owns IPRs which were, or were likely to become Essential in respect of the work of 3GPP.
> - to notify their respective Organizational Partners of all potential IPRs, e.g., for ETSI, by means of the IPR Statement and the Licensing declaration forms (http://webapp.etsi.org/Ipr/).

3 Meeting reports

TD S2-050529 Draft minutes of S2#43. This was provided by D. Boswarthick, MCC. As this was received only at the beginning of the meeting, delegates were asked to review this and provide comments to the secretary for update if necessary and approval will be done on Friday 8 April. Editorial comments were received and the report was revised in TD S2-050955 with revision marks. The revision marks were accepted in TD S2-050957 which was approved.

TD S2-050776 Notes from SA Plenary. The SA WG2 Chairman provided a report of the discussions relevant to SA WG2 at the TSG SA #27 meeting.

•CRs on 23.002: CR#148 was questioned as the D'/Gr' interfaces do not have a stage 3 implementation. It was noted that this was already used in the specification. These CRs were approved. SA WG2 were asked to check the

use of D'/Gr' and check alignment with other specifications. The SA WG2 Chairman proposed that the use of this interface in 23.002 was not appropriate and suggested that it is removed from here because it causes confusion. It was decided to discuss this more off-line and contributions on how to handle this were invited to the next SA WG2 meeting.

This report was then noted.

TD S2-050785 Report of TISPAN Workshop discussions. This was introduced by SA WG2 Chairman.

This was considered a highly productive Workshop:

- 35 highly valuable inputs.
- Some 180 participants.

Areas requiring urgent/close coordination:

- TISPAN_NGN security mechanisms, IMS R7 Security extensions. WG7 and SA3 close coordination
- Workshop recommends closed coordination between TISPAN WG7 and 3GPP SA WG3
- SIP/SDP profile and Extended P-CSCF requirements to be documented and coordinated with SA2 and CT1 (particularly w.r.t TS 23.228 and 24.229)

Other useful feedback:

- TISPAN to make decisions on the use of Gq' or Gq + another interface within TISPAN

Joint working arrangements for a common core IMS

The joint Workshop endorsed the principles described in TD-035, with the clarification of the endorsement process (making normative references)

Joint working arrangements for a common core IMS:

- The joint Workshop endorsed the principles described in TD-035, with the clarification of the endorsement process (making normative references)
- 3GPP CT1, SA2 and TISPAN WG2 and WG3 to have a “Joint meeting” to advance the FBI work.
  - Potential 1st date 12-13th July (during TISPAN 7)
  - Scope is to develop potential TISPAN CRs to 3GPP TS23.228 and 24.229.
  - Meeting will have the mandate to make CRs to 3GPP specs.
  - The 3GPP and TISPAN leaderships will make the detailed arrangements for the joint meeting.

This report was then noted.

TD S2-050595 Report from Iu-flex conference call 22-02-2005. This was introduced by Vodafone and was noted.

TD S2-050596 Report from Iu-flex conference call 18-03-2005. This was introduced by Vodafone and was noted.

TD S2-050790 Report of e-mail approvals after meeting #44.This was checked off-line and approved.

4 Incoming Liaison Statements

The suggestions in TD S2-050775 were taken as a basis for dealing with these LSs. The following LSs were noted:

TD S2-050546 Reply LS (from GERAN WG2) on MBMS Session Repetition

TD S2-050550 LS (from GSMA) on presence and legal values of the Charging Characteristics IE in GTP

TD S2-050552 Reply LS from CN WG1 (to R3-041648) on MBMS Information Elements over Iu interface

TD S2-050554 LS (from CN WG1) on PS handover and Robust Header Compression (RoHC) Context Relocation

TD S2-050555 Reply LS (from CN WG1) on Application Charging ID

TD S2-050557 Reply LS (from CN WG1) on the PS Handover Work (G2-0402911)

TD S2-050561 Reply LS (from CN WG3) on removal of Ry reference point.

TD S2-050566 Reply (from RAN WG2) to LS on Session Repetition.

TD S2-050568 LS (from RAN WG3) on completion of network initiated SCUDIF support.

TD S2-050569 LS from RAN WG3: Number Of Idle Mode UEs.

TD S2-050570 Response LS (from RAN WG3) on MBMS Common IE encoding.

TD S2-050573 Reply LS (from SA WG3) to 'Status of OMA Mobile Broadcast Services'.

TD S2-050576 Reply LS (from SA WG4) on Reception Acknowledgement for MBMS.

TD S2-050581 Reply (from SA WG4) to Liaison Statement on Status of OMA Mobile Broadcast Services.

TD S2-050583 Response LS (from SA WG5) on Impact of Shared Public User Identities on the Sh Interface.

TD S2-050541 Liaison (from TISPAN WG5) on mapping between ITU-T and 3GPP QoS Classes and Traffic Descriptors. The mapping between ITU-T and 3GPP QoS Classes and Traffic descriptors, was reviewed by TISPAN#5. The answers to questions will be taken into account in work on QoS for NGN. TISPAN WG5 will raise any outstanding issues at the joint TISPAN & 3GPP workshop planned for the end of March 2005. TISPAN WG5 will include the text from the attached contribution in the latest draft of DTS/TISPAN-05008 (QoS Framework and Requirements). This was noted.

TD S2-050542 Liaison (from ITU-T SG12 on QoS Interworking. ITU-T SG12 has begun a new study under Q11/12 that addresses QoS interworking and apportionment of performance parameter values between packet networks and encourage input on a number of areas and solicited input on e.g. deliverables satisfying the pre-requisites for performance apportionment, collaboration and participation of experts in the work. This LS was noted and interested companies were asked to contribute to SA WG2 for any work to be done on this.

TD S2-050543 Liaison (from ITU-T SG12: Additional information on "Mapping between ITU-T and 3GPP QoS Classes and Traffic Descriptors". This was introduced by the SA WG2 Chairman. ITU SG12 have learned that ETSI TISPAN WG5 largely supports the proposals for mapping between the ITU-T Network QoS Classes (in Y.1541) and 3GPP QoS classes set out in a USA Contribution to the February 2004 Meeting of ITU-T SG 13 (COM 13 D 533-E). This work has moved from Q6/13 to Q17/12 in the 2005-2008 Study Period. ITU-T SG12 requested that Y.1541 should be reviewed in light of emerging application to determine whether it is necessary and practical to specify more stringent objectives for IPLR and IPER, consistent with the relatively stringent UMTS SDU error ratio requirements specified in TS 23.107. This was noted and a revision of Y.1541 was provided in TD S2-050544.

TD S2-050544 Revision of Recommendation Y.1541, "Network Performance Objectives for IP-based Services". This was introduced by the SA WG2 Chairman. This LS provides information of our on-going work to introduce limited revisions in Recommendation Y.1541, in order to expand its coverage and increase its usefulness and clarity. The current draft attached for review and comment, and to extend the invitation to contribute in any of the areas noted in the text. **This was postponed to the next SA WG2 meeting and Members were asked to review Y.1541 and contribute any comments to the next meeting.**

TD S2-050545 Response to 3GPP Reply on Mapping between ITU-T and 3GPP QoS Classes and Traffic Descriptors. This was introduced by the SA WG2 Chairman. Q17/12 would like to highlight the following points, regarding SA2's liaison reply:

> The information on delay variation provided by SA2 is very interesting, and somewhat unusual: "Especially in a loaded network, it is expected that the mean delay and the maximum delay would converge (e.g. if earliest deadline first scheduling is employed)." With the mean and maximum delay nearly equal, it appears that this scheduling algorithm smoothes the variation to a great degree. We ask that you share further information with Q17/12 as it becomes available (e.g. on the behaviour of other scheduling algorithms). In the absence of constraints on delay variation for the UMTS Network Section, there will be little

choice but to map 3GPP/UMTS Services to Y.1541 Network QoS Classes with Unspecified delay variation, if Y.1541 classes are to be supported end-to-end. ITU-T SG12 ask SA WG2 keep them informed of progress.

There was concern that the services may all become best-effort services which is not desirable. The Scope of 23.103 had already been clarified in a LS from SA WG2, so this LS was noted.

TD S2-050780 Reply LS (from SA WG5) on Gateway Mobile Location Center (GMLC) call records. SA WG5 have discussed the attached CR in S5-054280 and concluded that some of the requested actions can be completed as detailed in table 1 of this LS for the GMLC identities and table 2 for the GMLC MCC/MNC. The CR will be submitted to SA5#42 (May 2005) and subsequently to SA#28 (June 2005) for approval. This was copied to SA WG2 for information and was noted.

TD S2-050781 LS (from SA WG5) on Diameter Credit Control (DCC) Session Handling. This was introduced by the SA WG2 Chairman. SA WG5, in the course of work to introduce flow based charging functionality, has noted that the CT WG3's TS 29.210 for the Gx protocol specification contains the association of DCC session to Packet Data Protocol (PDP) session and hence association of PDP Contexts to DCC sub-sessions. This concept has not been agreed in SA WG5 for the Gy/Ro interface and therefore cannot be applied for the "Gx over Gy" application. This was dealt with in the drafting group.

TD S2-050782 Reply LS (from SA WG5) on Application Charging ID (ACID) for PoC. This was introduced by the SA WG2 Chairman. SA WG5 provided some answers to the actions requested by SA WG2 on Application Charging ID (ACID) for PoC. This was provided for information and was noted.

TD S2-050783 Reply LS (from SA WG5) on tracing information for MBMS services. This was introduced by the SA WG2 Chairman. SA WG5 thank CT WG3 for the LS on MBMS tracing. SA WG5 has reviewed the CR that has been discussed in CT WG3 for introducing Trace possibilities in the BM-SC. SA WG5 has concluded that CT WG3 used the Trace parameters that have been defined in SA WG5s TS 52.008, which is a GSM only specification. This was copied to SA WG2 for information and was noted. **It was also noted that there seems to be a lack of Trace specifications for GPRS. Member companies were asked to provide the necessary information to SA WG5.**

TD S2-050574 Reply LS (from SA WG3) on Control of simultaneous accesses for WLAN 3GPP IP access. The modification proposed by SA WG2, Control of simultaneous accesses for WLAN 3GPP IP access (S2-050430), is acceptable for SA WG3. The approach of using a counter instead of a flag is implemented in S3-050151 (attached). A reply LS was provided in TD S2-050860 which was reviewed and updated to make an action on CT1 and CT4, move them to the "To:" line and remove draft in TD S2-050941 which was approved.

TD S2-050553 LS (from CN WG1) on 3rd party registration and shared public user identities. CN WG1 ask SA WG2 for guidance whether a solution based on expires parameter as proposed is acceptable from an architectural point of view. It was clarified that the impacts on filter criteria was that it wasn't clear how Rel-5 would function in trying to hide multiple applications. It was thought that some enhancement to the filter criteria may be needed to make this work. Although there were possible protocol impacts, no architectural issues were identified. It was proposed that the reply should indicate that there is no SA WG2 issues with the proposal but that it may not be a complete solution. The response LS was provided in TD S2-050942 which was reviewed and revised in TD S2-050953 which was approved.

TD S2-050556 LS (from CN WG1) on transport of HSS address. CN WG1 inform SA WG2 that the proposed functionality for transport of HSS address could be achieved by means of an optional P-Header included by the I-CSCF when forwarding the SIP REGISTER or INVITE request. The I-CSCF would insert the HSS address that it received in the corresponding query to the SLF in that header. The S-CSCF would use this HSS address for the destination of the corresponding Cx requests and omit the query to the SLF. This LS was noted.

TD S2-050562 Reply LS (from CN WG4) on Impact of Shared User Identities on the Sh Interface. CN WG4 inform SA WG5 that within a subscription, all Public ID's and Private ID's must use the same set of Charging Addresses. This LS was noted.

TD S2-050779 LS (from SA WG5) on Shared Public Identity. SA WG5 ask advice on the usage of Shared Public User Identity for identification of a user, or MS respectively. SA WG5 identified a problem during the implementation of the IMS Service Profile parameters in SuM Network Resource Mode.

- Does Private User Identity identify the user or the subscription?
- If it identifies the subscription how does it fit to the shared Public User Identity concept?

It was commented that only the Private User Identity can be authenticated, which is identifies the subscription. It was also commented that there could be multiple Private User Identities associated with one subscription. It should be clarified to SA WG5 that there is a one-to-many relationship, but the subscription can be uniquely identified using a Private User Identity. A response LS was provided in TD S2-050917 which was reviewed and updated editorially and to remove draft in TD S2-050943 which was approved.

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TD S2-050623 Proposed CR 0017 to 23.236: Clarification of IPv4 and IPv6 node addresses in an IuFlex architecture (Rel-5). This was provided by Huawei and China Mobile. Summary of change: Clarification of IPv4 and IPv6 node addresses in an IuFlex architecture. There was some objection that this would preclude gradual upgrade of Nodes as all would need to be of the same type in a pool area and be upgraded together. There was an off-line discussion on the need for such a CR and it was decided to return to this at the next meeting. The document was then noted.

TD S2-050700 Proposed CR 0484 to 23.228: GPRS procedure for P-CSCF discovery (Rel-5). This was introduced by Ericsson. Summary of Change: It is clarified that the "GPRS procedure for P-CSCF discovery" is a standalone procedure and the UE retrieves all the necessary information to start the IMS communication via P-CSCF. It was clarified that a "stand-alone procedure" meant that there is no other action required by the UE to provide the information needed for P-CSCF discovery. It was considered best to liaise this CR to CT WG1 in order to explain the intention to them so the CR was revised in TD S2-050796 and included in the LS in TD S2-050797 which was reviewed and updated with clarifications and revised in TD S2-050940 which was reviewed, change marks and draft removed in TD S2-050959 which was approved.

NOTE: TD S2-050796 was noted at this meeting.

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TD S2-050559 LS (from CN WG1) on service based inter-system hand over. CN WG1 draw SA WG1, SA WG2 and GERAN WG2 attention to a protocol enhancement and asks SA WG2 and GERAN WG2 whether the proposed change (N1-050398) is in line with actual stage 2 specifications and GERAN stage 3 specifications and welcomes any additional guidance from SA WG2 and GERAN WG2 regarding the statements and assumptions provided. It was reported that this CR was a result of discussions on PS transparent bearer services on 2G Networks. There were some concerns that this CR may not fully address some problems with intersystem handover. An response LS to CT WG1 was provided in TD S2-050798 and discussed in order to help resolve issues. The LS was revised in TD S2-050929 and reviewed and revised to remove Nokia from the source and draft in TD S2-050944 which was approved.

TD S2-050580 Reply to LS (from SA WG4) on AMR multi-rate operation of VoIMS. This was introduced by the SA WG2 Chairman. SA WG4 provided feedback on how the DTX for VoIMS prevents the continuous radio transmission of ‘comfort noise’ during a ‘silence period’ and asked SA WG2 to consider if “Codecs and Codec modes” information is expected to be available to SGSN and RNC at some future time, for VoIMS optimization. It was considered premature to respond immediately to this LS as the issue should be studied. The LS was then noted and Members were asked to study this topic.

TD S2-050667 Proposed CR 0071r1 to 23.141: Correction of description of PNA indirect control of Presence Information flow (Revision of S2-040631, S2#43). This was introduced by Lucent Technologies. Summary of Change: The text in 5.2.2.1 and in 5.2.2.2 is changed to indicate that this capability is limited to controlling the sending of Presence Information from network elements that have the Presence Information subscriptions made via the HSS/HLR. This CR was reviewed and the consequences if not approved and the wording for Network Agent were modified to clarify the CR in TD S2-050799 which was approved.

TD S2-050725 Proposed CR 0527 to 23.060 (Rel-6): Activation of secondary PDP context without TFT. This was introduced by Siemens. Summary of change: The text describing the relation of PDP contexts and TFTs is modified to clarify that a TFT is not in any case associated with a PDP context during a secondary PDP context activation. It was commented that the summary of change should read that the TFT is not always associated with a PDP context. The CR was revised in TD S2-050800 which was reviewed. The category was questioned as it was considered an editorial correction, rather than an essential correction. It was clarified that this is not an editorial but essential to avoid wrong implementations. The CR was approved.

TD S2-050677 RAN centric load re-distribution with A/Gb/Iu Flexibility. This was introduced by Nortel. This paper describes a solution for load re-balancing reusing load sharing procedures already existing for A/Gb/Iu Flexibility feature and already existing information in the UE-RAN messages. The difference between this proposal and the Ericsson proposal was asked. It was clarified that this reuses load sharing procedures in this proposal and it relies on the use of location area updates. This contribution was noted after off-line discussion.

TD S2-050678 RAN centric load re-distribution with SRNS relocation. This was introduced by Nortel. This contribution describes a solution to redistribute CONNECTED mode UEs remaining though use of inter-SGSN SRNS relocation procedure. This SRNS relocation is an inter-SGSN SRNS relocation which keeps the same RNC as source and target RNC. It was asked whether there was an overload problem with this solution. It was clarified that if the bearers were to build up then the only solution would be to re-start the node and this proposal attempts to avoid this "hard" removal of bearers. The procedure should have minimum interruption to the user, as in most cases the UE would already have dropped the bearer. Running this procedure will release all the real-time bearers which are no longer active. This contribution was noted after off-line discussion.

TD S2-050715 CN Centric Load Re-distribution with A/Gb/Iu-flex. This was introduced by Ericsson. Proposal for way forward on Iu-flex re-distribution issue. It was asked how the location of the other nodes are known. It was clarified that this is controlled from the operation and maintenance system (i.e. a manual procedure). An off-line discussion on an alternative procedure can be had before the next SA WG2 meeting. It was asked how subscribers are moved to new CN nodes. It was clarified that this can be done in many ways, including when a new TMSI is allocated to the user. It was commented that the RAN can also re-distribute the load between the CN nodes, so when the RAN re-distributes load (Iu-flex) it needs to know dynamically the load on each CN node, so a second re-distribution procedure in the CN could impact this decision in the RAN. This contribution was noted after off-line discussion.

TD S2-050643 Comparison of proposed Iu/A/Gb Flex Load Balancing solutions. This was introduced by Lucent Technologies. Two conference calls were organised by Vodafone on Iu-flex on maintenance shut down and load balancing. The minutes of these calls were circulated on the SA WG2 exploder by Vodafone. During the calls, two main proposals were considered and a brief summary of the two proposals is given. In summary, in a multi-vendor environment or when Gs interface is not used, the RAN centric solution seems to have an edge over CN centric solution. However, if this is not required or when Gs is used, the CN centric solution has a definite advantage. It was commented that the RAN-centric approach, if the mobile operation is configured by O&M, then there could be a complicated and intense amount of work for some operators and there are configuration impacts, contrary to that indicated in the table. Existing solutions are insufficient and inconsistent between GERAN and RAN. There were some comments about the complications in using the CN-centric approach, as the RAN already uses Iu-flex for load distribution between CN nodes and there were comments about the complexity of O&M implementations. The table was, however, considered a good basis for further analysis and comparison of the two approaches. Clarification was needed on whether the Gb Solution is RAN-centric or CN-centric. It was also reported that the overload message in GERAN is only sent when the overload has occurred and does not really help for overload prediction and avoidance mechanisms. It was agreed that more telephone conferences were required and these will be 19 April 2005, 09.30 CET. Further information will be sent over the e-mail exploder. SA WG2 asked for clarification on the solutions in order to reach a conclusion at the next SA WG2 meeting. This contribution was then noted.

TD S2-050726 Proposed CR 0156 to 23.107: Addition of GERAN to the scope section (Rel-6). This was introduced by Siemens. Summary of change: The scope section is updated by clarifying that TS 23.107 provides the framework and the architecture for QoS in 3GPP. The category of the CR was questioned as it appeared to be editorial. It was clarified that the GERAN was not included when the Scope was originally written, and this change alters the scope of the TS, so is not just editorial. This CR was in response to an action from TSG SA to update the scope of 23.107 to include GERAN. The CR was revised in TD S2-050911 which was approved.

TD S2-050727 Proposed CR 0154R2 to 23.107: RAB Allocation/Retention Priority (Rel-6). This was introduced by Siemens. Summary of change: Revision of S2-050446 (S2#44). The value range of the RAB attribute ARP is extended to 15 possible values apart from GERAN when the Gb Bearer Service is used. The mapping from UMTS bearer service attributes to the RAB ARP bearer service attribute is described by specifying mandatory and optional rules for PS and CS domains. References for the mandatory attributes for CS services are also added. It was clarified that the deleted text in 6.4.4.1 was compensated for by the addition to note 4, following it. The CR was approved.

TD S2-050622 Proposed CR 0018 to 23.236: Clarification of IPv4 and IPv6 node addresses in an IuFlex architecture. This was provided by Huawei and China Mobile. Off-line discussions lead to non-acceptance of this CR as it is and it was noted.

6.1 IMS Phase 2 [IMS2]

TD S2-050617 Routing of calls originated from CS network to IMS network. This was introduced by Huawei. For a call originated from a circuit-switched network to an IMS network, it is not clear about how the call is routed to the terminating UE in the IMS network. This contribution discusses this issue and proposes to clarify in the related specifications about how a circuit-switched originated call is routed to a user in the IMS network. CRs for this are proposed in TD S2-050618 and TD S2-050619. It was clarified that the from the destination user ID the MGCF can determine whether the user is on an IMS network and route the call appropriately. It was commented that this additional functionality is not appropriate for Rel-6. It was agreed that this extends functionality and would have protocol impacts. Huawei were asked to draft a WI for Rel-7 if they wish to pursue this proposal for Rel-7. It was noted that if the full solution requires only a single CR then this could be done under TEI for Rel-7. This contribution was then noted.

TD S2-050618 Proposed CR 0488 to 23.228: Clarification to the usage of ENUM DNS translation function (Rel-6). This was introduced by Huawei. This was noted following discussion of TD S2-050617.

TD S2-050619 Proposed CR 0489 to 23.228: Clarification to the usage of E.164 format Public User Identities in the IMS network (Rel-6). This was introduced by Huawei. This was noted following discussion of TD S2-050617.

TD S2-050634 Proposed CR 0483 to 23.228: Alignment of Session-based Messaging flows with stage 3 (Rel-6). This was introduced by RIM. Summary of change: Aligns stage 2 Session-based messaging flows with those in the stage 3. It was reported that an alternative proposal from Ericsson leaves the ACK being sent at a later time than proposed by RIM. Ericsson did not think it was clear whether it can send the ACK in parallel with the TCP set-up. This should be added to the flow description. It was commented that it should be clarified which UE is meant in the flow descriptions. The CR was revised in TD S2-050918 which was approved.

TD S2-050701 Proposed CR 0485 to 23.228: GPRS procedure for P-CSCF discovery. This was covered by the proposal in TD S2-050634 and was noted.

TD S2-050739 Proposed CR 0490 to 23.228: On AS forking. This was introduced by Siemens. Summary of change: The existing text in 4.2.7.2 is enhanced to clarify that an AS shall not use the UEs contact address(es) but the UEs public user ids to fork requests towards the ISC interface. Forking of requests to the contact address(es) of an user should be done by the S-CSCF. The CR was revised to clarify the forking issues in TD S2-050919 which was approved.

TD S2-050706 Proposed CR 0486 to 23.228: Correction of the information flow for session based messaging with intermediate node (Rel-6). This was provided by Ericsson and was noted.

TD S2-050636 Preview of upcoming contribution on SIP as Mp interface alternative. This was provided by Convedia and provides a preview of an upcoming SA2#47 contribution proposing SIP as an alternative to H.248 for the Mp (MRFC-MRFP) interface. This was provided for information and was noted.

6.2 3GPP enablers to support PoC [PoC]

TD S2-050635 Proposed CR 0004 to 23.979: Correction of OMA PoC references. This was introduced by RIM. Summary of Change: Replaces dated references to out of data OMA PoC specifications with non-specific references, corrects a reference to the OMA-POC-RD and adds the missing abbreviations to clause 3.2. It was commented that TR 21.905 should be referenced and not then duplicated, unless specifically needed. Some editorial corrections were made and the CR was revised in TD S2-050892 which was approved.

6.3 LCS [LCS2]

There were no specific contributions under this agenda item.

6.4 Network Sharing [NTShar]

There were no specific contributions under this agenda item.

6.5 I-WLAN [WLAN]

TD S2-050563 LS (from CN WG4) on Mandating functionality in WLAN ANs. This was introduced by the SA WG2 Chairman. CN WG4 ask SA WG2 to confirm that the support of the IETF RFC 3576 over Wa reference point is

optional and not mandatory and if so, to clarify how SA WG2 foresee that the 3GPP AAA Server/Proxy can determine whether or not the WLAN AN supports immediate purging of a user and take appropriate action. It was considered that if the RFC is made mandatory then IMMEDIATE DISCONNECT functionality would then be available, but DISCONNECT can also be done by other means. It was agreed that this functionality should be made mandatory and a response informing CT WG4 of this was provided in TD S2-050858 which was reviewed. The scenario of a WLAN AN which doesn't support the RADIUS protection functionality for roaming users was discussed. The 4th paragraph was clarified to include an alternative method of periodic re-authentications that had been mentioned in SA WG2. The LS was revised in TD S2-050945 which was approved.

TD S2-050564 LS from CN WG4: Addition to WLAN Stage 2 Ruling Wn Out of Scope for 3GPP. This was introduced by the SA WG2 Chairman. CN WG4 have found one phrase captured in TS 29.234 not already existing in TS 23.234: "The specific method to implement this interface is subject to local agreement between the WLAN AN and the PLMN and it is out of the scope of 3GPP specifications." SA WG2 were asked to update the stage 2 appropriately. It was noted that a similar phrase exists in TS 23.234 where the interface is a matter for local agreement. There was a comment that this Rel-6 limitation is contradicted in the specification and a check would be done on this to remove any contradictions. A proposed CR was provided in TD S2-050774 which implemented the CN WG4 request:

TD S2-050774 Proposed CR 0122 to 23.234: Correction to Wn Reference Point. This was introduced by Lucent Technologies and implemented the request from CN WG4 in TD S2-050564. It was suggested that this is clarified to make it clarify that this is out of Scope for this Release in TD S2-050859 which was approved.

TD S2-050778 LS (from GSMA IREG) to 3GPP on "GSMA IREG Packet Feasibility study on 3GPP Rel-6 WLAN Interworking". This was introduced by the SA WG2 Chairman. GSMA IREG has carried out a brief review of the 3GPP Rel-6 WLAN Interworking specifications in order to align their specification of GSMA PRD IR.61 (WLAN Roaming Guidelines). As an outcome of this review, GSMA IREG was able to identify a number of weaknesses and/or incomplete definitions in the stage 2 and stage 3 documentations available as at 28/02/2005. GSMA IREG ask CN WG4, CN WG1 and SA WG2 to consider the issues listed in this LS as critical in the 3GPP Rel-6 timeframe. Members were asked to take these comments into account and contribute to the addressed WGs on these topics. The LS was then noted.

6.6 MBMS [MBMS]

TD S2-050547 Reply LS (from GERAN WG2) on MBMS Session Duration IE. GERAN WG2 ask SA WG2 a question about the presence of the MBMS Session Duration IE in the MBMS SESSION START REQUEST message, based on the feedback received by RAN WG3 in their LS on Response on MBMS Common IE encoding (R3-050343). GERAN WG2 understand that if the session duration is unknown by the BM-SC, the BM-SC indicates as a session duration the maximum expected value, rounded up to the next higher value that can be signalled, and the indefinite value is only included to denote sessions that are expected to be always-on. It was clarified that making this information element mandatory should not have an impact as it was made optional before in GERAN WG2 in order to align with the Stage 2 specification. It was asked how the RAN would handle this information which is not used in the RAN. Although there was no architectural problem with this, clarification was considered necessary before full agreement could be obtained for this. After an off-line discussion a response LS was provided in TD S2-050905 which was reviewed and revised to at CT WG4 action and other CT WGs as CC: and to remove draft, in TD S2-050946 which was approved.

TD S2-050548 Reply LS (from TSG GERAN) on MBMS Information Element coding (S2-043862). This was introduced by the SA WG2 Chairman. this LS provides SA WG2, RAN WG3 and CN WG3 with some comments and GERAN current assumptions, aimed at achieving a common understanding and agreement in TSG GERAN and UTRAN for the MBMS Session Duration, as envisaged by SA WG2. TSG GERAN asked WGs to take into account the reported comments and assumptions when dealing with the MBMS Session Duration IE length and coding. This LS was noted.

TD S2-050549 Reply LS (from TSG GERAN) on bit rate/delay requirements in the GERAN for an MBMS session. This was introduced by the SA WG2 Chairman. GERAN WG2 strongly suggest to always associate the Streaming traffic class parameters to any MBMS service type (e.g. Streaming or Download & Play), when the MBMS service has to be provided over the GERAN. GERAN WG 2 ask SA WG2 to take this request into account when deciding the UMTS QoS traffic class to associate to an MBMS service that has to be provided over the GERAN. It was commented that the use of this is dependent on how SA WG4 design the Codec and SA WG4 should be asked to respond to this. It was agreed that this would be used in SA WG2 work and this LS was noted.

AP 45/01: M Pope to contact SA WG4 MCC support to inform him that SA WG2 believe SA WG4 should answer the LS from GERAN WG2 in TD S2-050549 (GP-050374).

TD S2-050551 Reply LS from CN WG1 (to R2-050272) on AS-NAS interaction for MBMS. This was introduced by the SA WG2 Chairman. CN WG1 ask SA WG2 to provide further information on the use of the MBMS bearer capability and its purpose to both CN WG1 and RAN WG2. It was considered that more study was needed before agreeing to remove the IE and this was checked off-line and a response LS provided in TD S2-050882 which was reviewed. There was a problem with the formulation about the MBMS Bearer capabilities and re-wording was considered necessary. It was also asked if there had been any discussion on this in RAN WGs. The LS was revised off-line in TD S2-050947 which was reviewed and draft removed in TD S2-050968 which was approved.

TD S2-050558 Reply LS from CN WG1 (to R2-042734 and S2-050488) on NAS signalling load at MBMS Session Start/Stop. This was introduced by the SA WG2 Chairman. CN WG1 provide feedback to RAN WG2 on their questions regarding NAS level mechanisms to restrict the number of UEs that initiate NAS signalling simultaneously due to non-MBMS service activation/re-activation or de-activation and whether CN WG1 expect AS level mechanisms to be used to reduce peak SGSN load during MBMS counting. This LS was provided for information and was noted.

TD S32-050567 Reply (from RAN WG2) to LS on NAS signalling load at MBMS Session Start/Stop. This was introduced by the SA WG2 Chairman. RAN WG2 comment on some of the statements from SA WG2 and share some information about the current mechanisms available in RAN. RAN WG2 asked SA WG2 to note the clarifications and initiate the necessary actions. It was noted that there was a related contribution in TD S3-050716. This LS was noted.

TD S2-050572 Reply LS (from SA WG3) on Reception Acknowledgement for MBMS. This was introduced by the SA WG2 Chairman. SA WG3 thank SA WG4 for their Response liaison on Reception Acknowledgement. For the 2nd question, SA WG3 does not think that secure (or reliable) charging based on a delivery acknowledgement is feasible. SA WG3 asked SA WG2 to take this analysis into account in their specifications. This LS was noted.

TD S2-050575 Reply (from SA WG3) to Liaison Statement on MBMS User Service architecture. This was introduced by the SA WG2 Chairman. SA WG3 inform SA WG2 that SA WG3 has handled BM-SC functionality in SA3#37 meeting and SA WG3 has agreed CRs that may have impact to TS 23.246. The related CRs were communicated to SA WG4 in the attached LS (S3-050131). SA WG2 were asked to take these CRs into account in their work. It was noted that there may be some editorial impacts of these changes (i.e. re-naming functions). This LS was then noted and CRs were expected at the next meeting to align with SA WG3 and SA WG4 specifications.

TD S2-050577 Liaison statement (from SA WG4) on MBMS User Service finalization. This was introduced by the SA WG2 Chairman. SA WG4 inform SA WG2 and SA WG3 on the latest modifications that SA WG4 have conducted to its TS 26.346 in order to finalize MBMS User Service definition. SA WG4 have specific questions to SA WG2 and SA WG3 on this matter: TS 26.346 clause 4.4: SA WG2 were asked to confirm the assumption, that the BM-SC Proxy and Transport function is not only transparent for GGSNs, but also transparent for the Session and Transmission function. SA WG2 were asked to review the attached technical specification and provide any necessary feedback. A response LS confirming these assumptions was provided in TD S2-050883 which was reviewed and revised in TD S2-050948 which was approved.

TD S2-050578 Reply LS (from SA WG4) on Session Repetition. This was introduced by the SA WG2 Chairman. In response to LSs on Session Repetition and to inform about the decisions made by SA WG4 on the Session Id and Session Id validity timer issues. SA WG4 agreed that the Session ID is optional, but when included by the BM-SC it shall be delivered to the RAN/GERAN, which in turn shall deliver it to the UEs/MSs. The size of the Session Id is 1 byte. The Session Id is delivered in the MBMS SESSION START REQUEST message to the RNCs/BSCs. The Session ID validity timer is defined and handled at the application layer and not at radio level (transparent to RAN / GERAN), and the value is delivered to the UE/MS either during the MBMS Multicast Service activation procedure (clause 8.2 of TS 23.246) or during the service announcement for Broadcast Services. In particular, the Session Id validity timer is not included in the MBMS SESSION START REQUEST message and shall not be passed to RAN/GERAN. SA WG4 asked this to be taken into account. This will be taken into account in SA WG2 work. The LS was noted.

TD S2-050579 Reply LS (from SA WG4) on MBMS Session Repetition. This was introduced by the SA WG2 Chairman. SA WG4 asked for further information about the MBMS Session Repetition Number originally requested by RAN WG2.

MBMS Session Repetition Number:

- Is the MBMS Session Repetition Number to be intended as the progressive number of the repetition of a session or is it just the indication whether the session is transmitted the first time or retransmitted?
- Is the MBMS Session Repetition Number to be used over the Iu interface only or over the Gb interface too?

It was noted that there was a related response in TD S2-050546 which had been noted by SA WG2. It was reported that it was agreed at the previous meeting that a CR would be prepared on this at this meeting, but this had not been received in the contribution set. It was also suggested that any information on this should also be sent to TSG GERAN to ensure there is no divergence between GERAN and UTRAN on this issue. A response LS was provided in TD S2-050884 which was reviewed and revised to remove draft in TD S2-050949 which was approved.

TD S2-050582 Liaison Statement (from SA WG4) on stream bundling for MBMS. This was introduced by the SA WG2 Chairman. SA WG4 ask SA WG2 to comment on whether there are any architectural issues in allowing for multiple RTP streams to optionally be protected together for Forward Error Correction purposes as a late feature in Rel-6, which would prevent the progression of this proposal as a late feature in Rel-6. The work appeared transparent to the architecture and no impacts were immediately obvious. There was a concern about the association of the received streams being associated with different services. SA WG2 understand that an MBMS Bearer is only used by 1 user service. This appeared to be in line with the attached document and so no response was considered necessary at this time. The LS was noted.

TD S2-050584 Proposed CR 0142 to 23.246: Extension of the use of MBMS support indication from SGSN to UE. This was introduced by NEC Technologies. Summary of Change: Extension of the use of MBMS support indication from SGSN to UE at registration time i.e. GPRS attach. Some comments were received on the wording and extent of these changes and the CR was discussed off-line and revised in TD S2-050886 which was reviewed and modified editorially in TD S2-050912 which was approved.

TD S2-050585 Proposed CR 0143 to 23.246: Modifications for MBMS tracing. This was introduced by Vodafone. Summary of change: Adds text similar to TS 23.060 for PDP context activation procedure relating to Trace to the MBMS multicast service activation. The functional use of Trace for MBMS service was questioned. It was clarified that this can be used to monitor MBMS events and was in line with SA WG5 work. The CR was revised for an activate BSS Trace issue investigation in TD S2-050887 which was reviewed and approved.

TD S2-050586 Proposed CR 0144 to 23.246: Clarification of the TMGI. This was introduced by Vodafone. Summary of change: Removal of duplicated information and an addition to the references section of 3GPP TS 23.003. This CR was approved.

TD S2-050587 Proposed CR 0145 to 23.246: Correction to charging information for MBMS. This was introduced by Vodafone. Summary of change: Adds parameter transfer of IMEI-SV, RAT Type, User Location Information, CAMEL charging characteristics, MS Time Zone from SGSN to GGSN, and subsequently to the BM-SC where possible along the same principles as those implemented for TS 23.060. IMEI-SV is expected to be used for accounting purposes only. The reason for change was incorrect and other modifications and clarifications were requested, so the CR was revised off-line in TD S2-050888 which was reviewed and approved.

TD S2-050588 Proposed CR 0154 to 23.002: Missing MBMS Architecture entities. This was introduced by Vodafone. Summary of change: Adds MBMS to architecture and links to TS 23.246. It was proposed that the architecture should be described in the main Architecture TS 23.002 and this should be referenced from the other specifications consistently throughout the architecture specification set. Therefore it was preferable to do this for this proposal, to add the description to 23.002 and reference to it from TS 23.246. This CR was approved.

TD S2-050603 Proposed CR 0147 to 23.246 on corrections to inter SGSN routeing area update procedure (Rel-6). This was introduced by Alcatel-Shanghai Bell Co., Ltd. Summary of change: Changes to correct the Inter SGSN Routeing Area Update procedure. It was commented that step 14 is incorrect, because the RNC does not perform the MBMS De-Registration Procedure. It was also commented that step 13 is confusing, because the RNC does not have any MBMS UE Context. It was clarified that registrations only occur for drift RNCs which is not the case for this proposal. It was noted that RNC should be replaced with "RAN" in the CR. It was further commented that step 19 should not be specified. Step 8 should be modified to correct the terminology to the new "routing area

identity". The CR was revised to take comments into account in TD S2-050909 which was reviewed. It was argued that the UE does not have a MBMS context in IDLE mode, so the addition of RAN in step 13 is incorrect. The CR was revised in TD S2-050913 which was approved.

TD S2-050602 Proposed CR 0146 to 23.246 on Complement of Inter SGSN Routeing Area Update procedure (Rel-6). This was introduced by Alcatel-Shanghai Bell Co., Ltd. Summary of change: During the SA#26 meeting the MBMS bearer service handling is specified for the case when a UE changes from a supporting SGSN to a non-supporting SGSN. However, UE may come back to a MBMS supporting SGSN from a non-supporting SGSN. How to handle MBMS bearer service is not specified for this case. It was commented that it is not the responsibility of the network to make the MBMS UE context, but is the responsibility of the UE and this makes the new section invalid. It was suggested to add text in step 15 of the preceding clause that the UE deletes its' MBMS UE Context when roaming to a non-supporting SGSN. This CR needed further off-line discussion and so the CR was noted.

TD S2-050714 Proposed CR 0148 to 23.246: MBMS Join clarification. This was introduced by Ericsson. Summary of change: Clarification that multiple MBMS bearer services may together provide ONE user service. It was questioned whether it is intended to allow to activate **all** MBMS bearer services. It was suggested to modify the text to activate only relevant MBMS bearer services. The CR was revised to take comments into account in TD S2-050910 which was reviewed. The CR was revised in TD S2-050914 which was reviewed. It was commented that the session start procedures should be harmonised for both Multicast and Broadcast and the same text added to the session start for both Multicast and Broadcast. The CR was revised again in TD S2-050961 which was approved.

TD S2-050897 (Revision of TD S2-050716): Core Network nodes overload prevention. This was introduced by LG Electronics. Linked to incoming LS R2-050650: Discussion paper on the necessity for the SGSN to provide information about node overload to the RNC on MBMS session start. Proposes to discuss the possibility to include procedures on the Iu interface between the SGSN (and possibly the MSC as well) and the RNC to allow the Core Network nodes to indicate potential overload situations to the access nodes. It may be useful to ask RAN WG2/RAN WG3 whether the information provided by the existing Overload Control procedure is sufficient, or if they could take advantage of the extended information provided in a new procedure described in this contribution. It was commented that the key point is how much we delay the session start, as buffering of data is needed between session start and transmission of data. This required further off-line discussion and was noted.

TD S2-050906 Proposed CR 0149 to 23.246 on Estimated Session Duration. This was provided by Telecom Italia. It was decided to leave this CR until the next meeting and it was therefore postponed.

6.7 IP Flow Based Bearer Level Charging [CH-FBC]

Documents allocated under this agenda item were handled by the PCC drafting group and are reported under agenda item 8.1.

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TD S2-050668 Support of Service Identifiers. This was introduced by Ericsson. If the need for a service identifier is accepted, then it is proposed to create a (Rel-7) change request against TS 23.228 describing the means that the telecommunication community can uniquely identify the services. Such a change request could be based on the proposed text. There was a suggestion that CT WG1 should be asked to consider this proposal. There was some concern about fraud or conflicts with other identifiers and it was suggested that this proposal is studied further before adopting it. Care also needs to be taken that the solution does not preclude it being used by other bodies and allows interoperability. It was clarified that support for a particular service could be indicated in the INVITE message. An off-line discussion was held to develop a draft discussion document. This contribution was then noted.

TD S2-050669 Proposed CR 0477R2 to 23.228: Forward HSS name (Rel-7). This was introduced by Ericsson and was a revision of TD S2-050427 (SA WG2 meeting #44). Summary of change: Re-introduce the ability to communicate a HSS address in the SIP registration from the I-CSCF to the S-CSCF. This CR was agreed in principle, but was postponed to a later meeting for approval, in order that the Rel-7 of this TS is not created unnecessarily early (CR postponed).

TD S2-050672 Identification of, and procedures related to, CSCF capability change. This was introduced by Ericsson. There are cases where the currently assigned S-CSCF may not be able to adequately serve the user, and a broad discussion is required in order to asses the most appropriate handling of this situation. Consideration should be given to presence signalling, where the SIP sessions may last for an extended period of time. This contribution attempts to cover some of these scenarios. Some of these use cases are covered by 3GPP, while other are not covered or just partly covered. This was noted.

7.1 Access Class Barring and Overload Protection [ACBOP]

There were no specific contributions under this agenda item.

7.2 SMS and MMS over Generic 3GPP IP Access [SMSIP]

TD S2-050802 LS from ETSI TISPAN WG2: Harmonization of SMS/MMS over generic IP access. This was introduced by the SA WG2 Chairman. Having two different architectures developed by two different SDOs to provide a similar or the same service carries a number of disadvantages, such as complexity or double implementation in network products, incompatibilities between terminals, double implementation in dual access terminals, etc. It also carries a disadvantage for the underlying network (IMS), if new requirements arise to support both architectures. It is the opinion of ETSI TISPAN that is worth investigating if both architectures for providing SMS/MMS service over IP access can be harmonized, ideally into a single architecture and common procedures that satisfy the requirements arising from both organizations. TISPAN WG2 suggested that ETSI AT and SA WG2 take into consideration these considerations , analyze each other's specification and investigate if harmonization of the two documents is possible. It was proposed to send a response encouraging ETSI TISPAN to study the SA WG2 solutions in order to harmonise their work as far as possible. The LS was provided in TD S2-050901 which was reviewed and revised to remove draft in TD S2-050950 which was approved.

TD S2-050624 Processing of MCEF. This was introduced by Huawei. This contribution proposes to improve the unsuccessfully MT delivering procedure in order to make SMS over IP-CAN consistent with the existing SMS specification (draft TS 23.040). It was clarified that in Step 3 of the flow in 8.3.1 the Gateway knows which HSS to send to because this is sent during UE authentication, in the SMS over IP this is a stage 3 implementation issue. It was questioned whether this is still a requirement, e.g. when this is available, there may not be any UE memory space issues. It was argued that full memory will still occur in the future and a mechanism for handling this will still be needed. It was agreed to add an editors note that this requirement is for further study. Some doubt about the Network Elements used in the flow was expressed and this should be checked off-line. The contribution was revised in TD S2-050902 which was approved for inclusion in the draft TS.

TD S2-050625 Handling of failure SMS-MT delivery. This was introduced by Huawei. This contribution proposes to improve the unsuccessfully MT delivering procedure in order to make SMS over IP-CAN consistent with the existing SMS specification (draft TS 23.040). It was questioned why the IP SMS Gateway would need to look at ongoing IP-SMS transfers, because it should be possible to send many IP-SMS messages concurrently. It was reported that this would provide user comfort in case of a temporary connection problem, to avoid build-up of un-transmitted IP-SMS messages. It was argued that this could be handled with transmission timers, etc. It was stated that the reliability of the IP link is a Stage 3 issue and should not be handled by SA WG2 and this limitation could deteriorate the user experience. The contribution was revised to remove this in TD S2-050903 which was approved for inclusion in the draft TS.

TD S2-050626 General corrections. This was introduced by Huawei. This contribution proposes to correct some clerical errors and arrange the serial number of figures. **It was agreed that "HLR/HSS" should be modified by the editor to "HSS" throughout the draft TS**. Also, a reference to TS 23.228 [12] should be added to the title of figure 8.8. The contribution was revised to include these changes in TD S2-050904 which was approved for inclusion in the draft TS.

TD S2-050627 Service Authentication in IP-Message-GW. This was introduced by Huawei. In the current TR 23.804 section 5.1.1, the functionality description of IP-Message-GW, it states the IP-Message-GW shall support the registration and authentication of the UE for SMS services. The registration/re-registration and de-registration procedure are already included in the TR, however, the service authentication is not introduced yet. It was clarified that these registration/re-registrations were expected to be performed only when Key Change is needed. It was commented that if there is no registration, the IP-Message-GW will send an appropriate message back, but it was not clear how this can be done if there is no registration. Huawei responded that the S-CSCF will check this. It was considered that more off-line discussion was needed on this topic and delegates were asked to contribute on this. The contribution was then noted.

TD S2-050644 Conclusion of TR 23.804. This was introduced by Nokia. TR 23.804 has been presented to TSG SA #27 for information, and the relevant CT WGs have been asked to provide comments on the technical content. It is expected that CT WGs will focus on the technical correctness of the TR rather than comparing the different mechanism described in the TR. It was commented that there had been discussions on whether to use SIP-based mechanisms or not and it had not been decided yet. It was commented that there is an advantage of using existing mechanisms instead of developing new SMS over IP mechanisms. It was agreed that a note should be added indicating that this mechanism is still under study. It was decided to allow time up until the next meeting for discussions on the proposals before adding this to the TR. Nokia agreed to bring a modified version to the next meeting. This contribution was then noted.

TD S2-050702 IMS-based messaging and SMSIP. This was introduced by Ericsson. The TD S2-050376 was agreed at SA WG2 #44, but seems to be missing in the TR 23.804 v1.0.0. This paper "re-inserts" the previously agreed requirement. This was approved for inclusion in the draft TR.

TD S2-050703 Decision on method for forwarding messages. This was introduced by Ericsson. The requirement "IMS-based messaging shall be used end-to-end in case originating UE used IMS-based messaging and the participating networks and user equipments have the appropriate IMS messaging capabilities, and depending on operator preferences" indicates that in the normal case an originating network should not change messaging method from IMS based Messaging to something else unless it is known that the capabilities on the path to and including the terminating UE do not support IMS based messaging capabilities, except if operator policy decides that interworking should be done. It was commented that the network should determine whether the destination is IMS-capable and then either forward it as an SMS or IMS message. After some discussion the document was noted and Ericsson were asked to discuss and update it for the next meeting.

TD S2-050704 IP based UE. This was introduced by Ericsson. This paper proposes to change the used terms "IP based UE" and "SIP based UE" to "UE" in TR 23.804. The definition of UE was revised in TD S2-050926 which was approved for inclusion in the draft TR.

TD S2-050740 Alignment of terminology in TR 23.804 and TS 23.040.This was introduced by Siemens. This contribution proposes an alignment of terminology between TR 23.804 and TS 23.040. In addition, editorial changes are suggested. This was approved for inclusion in the draft TR.

TD S2-050741 Support of OTA Service. This was introduced by Siemens. Over the air provisioning (OTA) of configuration data stored on the UICC is provided by means of WAP or SMS. The SMS over generic 3GPP IP access architecture should therefore take the OTA service into account and support this service as well. This includes the requirement that correct delivery of these SMS is guaranteed in some sense, either over 3GPP IP access itself or over the CS or PS domain. This contribution adds a corresponding requirement to chapter 4 of the SMS over IP TR. The proposal was edited to clarify the new requirement and revised in TD S2-050927 which was approved for inclusion in the draft TR.

TD S2-050742 Support of interworking between networks. This was introduced by Siemens. The IP-Message-GW provides protocol interworking between the IP-based UE and the GSM/UMTS network. This contribution proposes to use the IP-Message-GW also at network borders to provide e.g. interworking between a network using IMS infrastructure for messaging and networks that use legacy SMS in the CS/PS domain only. The IP-Message-GW should have additional functionality to determine whether a short message sent over IP has to be interworked at the network border to a SMS or MMS. In addition, some editorial corrections are proposed. It was agreed to clarify the description of the R6 reference point and use of PLMN instead of network, which was provided in TD S2-050928 which was approved for inclusion in the draft TR.

7.3 System Enhancements for Fixed Broadband Access to IMS [FBI]

TD S2-050685 Provide an Entity for Fixed Broadband Access to IMS. This was introduced by ZTE Corporation. This contribution provides an entity supporting for fixed broadband access to IMS. So that fixed multimedia terminal subscribers should be accessible to IMS and have capabilities to access their IP multimedia services. It was clarified that user authentication would need a new element as the terminals would not have a (U)SIM. Fixed MM terminals would need to be connected in order to access IMS (work is ongoing in TISPAN). It was reported that TISPAN were looking at secure access to IMS. Adding fixed elements into the TS would increase the scope of the work and it was suggested that SA WG2 should await the results of the TISPAN work in order to avoid having diverging architectures. It was agreed that this should be reviewed after TISPAN have developed their work and this contribution was noted. This type of contribution should be addressed to TISPAN.

TD S2-050686 Support PSTN/ISDN emulation/simulation for IMS. This was introduced by ZTE Corporation. This contribution provides capabilities in support of legacy PSTN/ISDN services alongside IMS services. So some IP multimedia services are applicable for legacy terminal equipments. It was commented that this should be PSTN simulation, rather than emulation in the 3GPP context. ZTE confirmed that this was intended to be an emulation contribution. Again, adding this would increase the scope of 3GPP work and TISPAN results should be awaited and analysed before updating the SA WG2 TSs. This contribution was then noted. This type of contribution should be addressed to TISPAN.

TD S2-050687 Naming of the IP multimedia functionality of the HSS. This was introduced by Orange. ETSI TISPAN is currently working on reusing the core IMS defined by 3GPP for their NGN network. During the process of describing their architecture requirements (work done in TISPAN Work Item 02007 soon to be approved as ES 282 001 in May), TISPAN often needs to refer to 3GPP IMS entities definitions and specifications (e.g. x-CSCFs). Another entity that TISPAN has to define is the database holding the user profiles. The current description of this "User Profile Server Function" extracted from the TISPAN specification was provided. It was clarified that it was desirable to map TISPAN work to 3GPP specifications. It was questioned whether the note in the TISPAN specification "... excluding the HLR/AUC functionality" was correct as AUC functionality will be needed for IMS authentication, assuming there is the ISIM functionality in the TISPAN proposal. It was agreed to postpone this to the next, or later, meetings for further discussion, taking into account the discussions at the joint TISPAN meeting.

TD S2-050688 Proposed CR 0155 to 23.002: Naming of the IP multimedia functionality of the HSS. This CR was noted/postponed due to the discussions on TD S2-050687.

7.4 IMS and PS Domain Impacts of IMS Emergency Calls

TD S2-050733 TR 23.867 v0.8.0 (Rapporteur Rainer Liebhart, Siemens AG). This was introduced by Siemens. This Draft TR is a temporary container for the architectural impacts on IM CN subsystem and on IP-Connectivity Access Network for establishing an emergency session via IM CN subsystem. The contents of this report when stable will be moved into the Technical Specification e.g. TS 23.002, TS 23.060 and TS 23.228. This TR was approved.

TD S2-050605 Location for IMS Emergency Calls. This was introduced by Lucent Technologies. Proposal for handling Location for IMS emergency calls in draft TR 23.867. It was reported that this TR was for both the WLAN Interworking and TISPAN interworking solutions. It was commented that, for the flow in 4.7.3, the S-CSCF does not know the SGSN address, so this may not possible. It was commented that a solution is needed which also covers TISPAN requirements. It was asked where the requirement 16 in 4.1.1 came from. It was clarified that some operators in certain areas may have to route the call based on the users location. There were different views on the Location issues and on where these things should be documented. This contribution was therefore noted and off-line discussions were invited on these issues.

TD S2-050645 IMS Emergency Sessions: Policy and Charging Control interaction. This was introduced by Nokia. Due to the fact that the IMS Emergency sessions TR will be part of Rel-7 some changes are needed to align the QoS related aspects with the Rel-7 Policy and Charging Control (PCC) architecture. Thus, this contribution proposes that the PCC may be used for IMS Emergency Sessions. One of the most important uses of the PCC for IMS Emergency Sessions is filtering, which prevents unauthorized traffic on the IMS emergency bearers. This contribution also proposes that the PCC related details are defined as part of the Rel-7 PCC work in TR 23.803 in order to prevent overlapping efforts and possibly contradicting requirements in the TRs. It was clarified that this document would only refer to the work on Rel-7 PCC. It was clarified that the changes do not modify anything in the UICC-less case. This was then approved for inclusion in the draft TR.

TD S2-050734 Security considerations. This was introduced by Siemens. This contribution proposes text for chapter 4.3 in TR 23.867 on security considerations, which is currently empty. It is proposed that for UEs equipped with an UICC the same level of security shall be applied for IMS emergency sessions as for other IMS sessions. This includes security on the bearer and IMS layer. If the UE is not equipped with an UICC, it is required that establishing of emergency sessions shall be possible on the access and IMS layer. However, without UICC authentication, authorization and integrity protection can not be ensured. It was commented that the requirement for the same level of security for emergency call could be a problem, because the home network will not normally authenticate an emergency call in the visited network and if authentication was to be added this would need to be looked at from the security and emergency call requirement viewpoints. The text was re-phrased to include that the authentication and integrity protection is based upon regulatory requirements. The revised document was provided in TD S2-050899 which was approved for inclusion in the draft TR.

TD S2-050735 IMS Registration in the context of Emergency Calls. This was introduced by Siemens. One basic concept for Emergency Calls in the IMS domain is to hold the call in the serving (i.e. roaming) network. In addition, emergency calls (emergency calls) must be possible in some countries even if the UE is not equipped with an UICC, while in other countries anonymous emergency calls are not allowed. Currently there is no clear description within TR 23.867 whether the UE should register in the IMS when it is going to establish an IMS emergency call. This contribution proposes the following concept for registration in the context of emergency calls. It was asked whether step 3 of the flow in 4.7.1 satisfies the regulatory requirements for authentication in the case that the terminal has a UICC. It was clarified that in some countries the IMS Identity will need to be validated and provided to the emergency centre. It was also clarified that the Identity will be needed for the call back service. The P-CSCF needs to validate the IDs for use for sending to the emergency centre. It was commented that filter rules will be needed if protection against misuse in the UICC-less case. It was commented that the procedure for emergency call set-up in the case that the UE is already registered and in a session to ensure it does not force de-registration and re-registration to make an emergency call needs to be studied. Contributions were invited on this. The contribution was revised to include comments in TD S2-050900 which was approved for inclusion in the draft TR.

TD S2-050737 Introduction of PSAP as destination for emergency calls. This was introduced by Siemens. In Europe as well as in the US it is a mandatory requirement to support routing the "standard emergency call" to a Public Safety Answering Point (PSAP) before this call will be transferred to one of the emergency control centres. Direct routing of an emergency call to an emergency control centre is a national option in Europe and a mandatory requirement in some other countries. Both situations have to be considered in this specification. At present only the direct routing to the emergency centre is described. This was approved for inclusion in the draft TR.

The following GPRS-related contributions were postponed to the next meeting:

TD S2-050646 IMS Emergency Sessions: Setting of Follow-on-Request Pending parameter (Nokia).

TD S2-050647 IMS Emergency Sessions: PDP context modification, deactivation and preservation (Nokia).

TD S2-050648 IMS Emergency Sessions: UICC-less procedures (Nokia).

TD S2-050736 Clarification on GPRS Procedures (Siemens).

7.5 3GPP System Architecture Evolution

TD S2-050791 Work plan and Work split for 3GPP System Evolution. This was presented by NEC and proposed a schedule for the architecture evolution work and the split of the work:

Proposed Work Procedure:

- Proposed SA2 / RAN WGs meeting schedule: 5 joint meetings from May to September
- Enough official and offline discussion should be guaranteed per meeting (proposed: minimum of four joint sessions in different days)
  - There should also be enough preparation time between meetings.
- Initial meeting should involve SA1 and SA2 and relevant RAN WGs (for RAN to decide). Specifically, links to other “evolution” WIs (on IWLAN, IMS, etc) need to be well understood and known to the different groups.
- The outcome of every meeting should be disseminated to all WGs within SA and RAN in order for each group to decide on their participation on a per meeting basis.
  - E-mail decision process should be considered by each WGs if their Meeting schedule does not allow the WG to decide on their participation in an official meeting.
- Main requirements and objectives should be clear before actual discussion on split takes place
  - Discussion on detailed requirements should, however, be deferred to relevant WGs and not delay the overall work.
- Functional split should be discussed on an architectural basis, taking requirements into account
  - Architectural scenarios from both RAN and SA should be taken into account for overall architecture design
  - The outcome of the functional split should be an agreed draft architecture, not a set of rules or requirements
- The draft architecture should be good enough for detail stage 2 study to start in relevant WGs
- Coordination is NOT finished after RAN and SA have agreed on a functional split (draft architecture). Consistency check points are needed to ensure that work stays aligned
  - It should be considered to have a joint meeting on LTE between SA at RAN at Plenaries #30, #31 and #32 with the aim to close the SI on both groups at the same time (plenary #32)

- WIs on actual specification work should start in RAN and SA at the same time
  - Work items on LTE issues that are exclusive RAN or SA issues (i.e. have not dependency on the other group) should be able to start as soon as deemed appropriate. They should not be linked to the overall LTE schedule.

The short term work schedule proposal needs discussion. It was noted that this was a proposal from TSG RAN, not NEC. Delegates were encouraged to go to the joint Quebec (May 30-31) meeting, but not enough attendance from SA WG2 could be expected to have a full joint meeting. The July meeting should be OK for a joint meeting. The Tallinn meeting may be used as a back-up if another joint meeting is still needed. There was some confusion over the schedule given in Slide 4 and that in Slide 5 as to what was expected to be completed by the Tallinn meeting. It was clarified that NEC believed that a draft architecture should be developed, although the details would not be specified at that time. The RAN architecture scenario is likely to impact the Core Network Architecture and this needs to be closely co-ordinated between RAN WGs and SA WG2.

It was also commented that these joint meetings should be made as efficient as possible and clear agendas should be provided. It was suggested that people are nominated to organise these joint meetings in order that the chairing of the meeting does not change for each meeting.

The presentation was noted as a set of principles that can be used to develop the architecture in an efficient way.

TD S2-050650 System evolution work plan and milestones. This was introduced by Nokia. During the TSG#27 round of meetings the timelines and main milestones for 3GPP's Long Term Evolution work was discussed. In fact, TSG-RAN#27 have agreed a work plan, this plan is described here. This was covered in discussions of TD S2-050791 and was noted.

TD S2-050591 TR 23.8de v.0.0.2. 3GPP System Architecture Evolution: Report on Technical Options and Conclusions. This was introduced by Vodafone. Updated TR skeleton "3GPP System Architecture Evolution: Report on Technical Options and Conclusions". It is requested that we discuss and, following any agreed changes, approve the TR. This TR was then approved.

The following documents were each introduced and discussed briefly, followed by a general discussion, reported at the end of the presentations:

TD S2-050593 Requirements on the System Architecture Study. This was introduced by Vodafone. In the interest of progressing the System Evolution study Vodafone has prepared this paper to provide some high level requirements for inclusion into clause 5 of the System Architecture Evolution TR. These requirements should be seen as guidelines for the architecture designs proposed. It was commented that the LI architecture for PS should be 33.108, not 33.107 and that the LI requirements were not used as a basis for architecture design, but is included in the final architecture. It was clarified that the figures for delay and bit-rate in section 5.1 were not final and would need to be studied with collaboration from the RAN WGs to find the final values. It was also commented that the system should be generic and GGSN should be removed. It was decided to take other proposals on this into account before deciding what the basis for the requirements text should be.

TD S2-050600 Introduction of Moving networks. This was introduced by NEC. As described in section 6.2.7 of TR 22.978 as the new capabilities required for an AIPN, this paper proposes to introduce the support of moving network in the AIPN. It is proposed to add the following text into the TR 23.8de 3GPP System Architecture Evolution: Report on Technical Options and Conclusions (Release 7). It was questioned whether the functional division between the RAN and CN should be taken into account already in the architecture development, or taken into account at a later stage. It was clarified that a PAN belongs to a single subscriber, whereas the concept of "Moving Network" belongs to a group of user devices. It was asked whether the definitions of Moving Networks would affect the SA WG1 WI. NEC responded that they had taken the SA WG1 AIPN WI into account. It was reported that there is some work in the IETF (NEMO) which should be considered for Moving Networks work.

TD S2-050601 Introduction of Personal Area Networks. This was introduced by NEC. As described in section 6.2.7 of TR 22.978 as the new capabilities required for an AIPN, this paper proposes to introduce the support of Personal Area Networks in the AIPN. It is proposed to add the following text into the TR 23.8de 3GPP System Architecture Evolution: Report on Technical Options and Conclusions (Release 7).

TD S2-050608 Architectural Requirement on Network Selection. This was introduced by Fujitsu. This contribution proposes some architectural requirements on Network Selection, i.e. adding a subsection on Network Selection in section 5 of TR 23.8de to reflect the requirements in TR 22.978. It was suggested that the user should have the possibility to overwrite the network default preferences. It was commented that the objectives of the WI on Network Selection was clear and these proposals would change the current assumptions for the architecture.

TD S2-050609 Architectural Requirement on Quality of Service. This was introduced by Fujitsu. This contribution proposes some architectural requirements on Quality of Service, i.e. adding a subsection on Quality of Service in section 5 of TR 23.8de to reflect the requirements in TR 22.978. It was suggested that these requirements should be included in feedback to SA WG1, rather than including it in the Architecture report. There was also an objection that the end-to-end QoS support may conflict with other requests for a short set-up time, so this should not be mandated (request to change "should" to "may").

TD S2-050610 Architectural Requirement on Mobility Management This was introduced by Fujitsu. This contribution proposes some architectural requirements on Mobility Management, i.e. adding a subsection on Mobility Management in section 5 of TR 23.8de to reflect the requirements in TR 22.978. It was commented that this would restrict the inter-system handover capabilities of some access systems. It was commented that this requirement intended to provide access independent mobility.

TD S2-050657 High-level functionality of the evolved 3GPP System Architecture. This was introduced by Panasonic. In this contribution some trends in the existing Release 6 and early Release 7 architecture are shown and associated with general high-level functionalities of the GPRS architecture. Subsequently requirements for the evolved architecture are derived. It was asked whether the intention was to exclude Wireless LAN as an Access Network. It was clarified that WLAN is included in the proposal. It was also clarified that the intention was to use the IETF work for any new Access Networks. It was commented that Logical Link Management Functions (A/Gb mode) will be needed also for evolved architecture and should not be logically separated into legacy Network support.

TD S2-050658 Requirements on the Architecture – General. This was introduced by DoCoMo. The current trend in the telecom industry is to introduce network architectures with separation of transport and control plane. The AIPN should follow this trend and keep a separation between the transport and the control plane. In the transport plane IP is the dominant technology today and allows mainstream products and easy interworking with other networks. This contribution proposes that these requirements are included into the architectural requirements in the SAE TR 23.8de. It was asked if this was an AIPN requirement (which is not defined in SA WG2 yet) or a general IP Architecture requirement. It was clarified that this had been developed from the SA WG1 AIPN work. It was clarified that this was an IP version independent requirement, so there is no specific requirement for IPv4.

TD S2-050659 Requirements on the Architecture – Mobility Management. This was introduced by DoCoMo. The AIPN shall support multiple access systems, existing and future (as stated in TR 22.978 v2.0.0, section 6.2.2). Due to the differences in capability and characteristics between the access systems there will be differences in provisioning IP based services over the access systems as well. It shall therefore be possible for the AIPN to coordinate provisioning across a variety of different access systems. This input proposes architectural requirements on the mobility management and AIPN - access system interworking based on the capability requirements outlined in the TR 22.978 v2.0.0. It was commented that the 3GPP Network already has the capability to handle a number of Access types. The decision on when to use Mobility Management and when to use inter-system handover was questioned. It was reported that this would need further study and the intention here is to collect together the requirements, which will be developed when the UTRAN Evolution requirements are known. The use of "Access System" should be reviewed as it is in contradiction with the 3GPP definition of 3GPP IP Access.

TD S2-050660 Requirements on the Architecture – QoS Management. This was introduced by DoCoMo. In the AIPN feasibility study (TR 22.978 v2.0.0) the capability requirements on the QoS in the AIPN have been identified in sections 6.2.5 and 6.2.6. In addition the TR 23.802 addresses requirements on enhanced QoS and this work needs to be taken into account when progressing the SAE work. This contribution proposes QoS architectural requirements to be included into the SAE TR 23.8de based on these requirements. It was commented that the use of AIPN implies that this is something new, whereas the SA WG1 work item defines the AIPN as being based on the Release 6 Architecture. It was generally agreed that SA WG2 need to make a definition of this for the Architecture work to clarify what we mean by this concept. It was commented that the requirement for lossless handover may be too strict as this requires a lot more functionality.

TD S2-050661 Requirements on the Architecture – Security. This was introduced by DoCoMo on behalf of DoCoMo and NEC. Security aspect identified in the AIPN service requirements (TR 22.978) shall be considered in the System Architecture Evolution study. Basic security functionality should be surely identified. Architectural requirements of new features from a security aspect should also be identified. The hiding of node addresses was questioned. It was clarified that this refers to network node addresses. It was also requested that this bullet is clarified to describe what is to be protected rather than a solution to protect nodes from attack. The protection against DoS attacks is too strict because DoS attacks can be performed simply by setting up a radio signal "jammer", so this requirement should be clarified.

TD S2-050792 Requirements on the Architecture – Network Performance. This was introduced by DoCoMo. The AIPN is expected, as described in TR 22.978, to support huge amount of IP traffic belonging to different kinds of services, including most of today's CS services, like voice and video, with similar performance and capacity as when the CS services are handled by the CS domain today. On problem in today's 3GPP system is that IMS based service setup takes much longer time than CS based service setup time. In order for the AIPN to support the performance of the existing CS services the session setup time must be shortened and large number of terminals must be supported in a cost efficient way. It was commented that the support for all existing services would imply support for CS-based services so this should be clarified.

TD S2-050663 Requirements on the Architecture – Optimal routing. This was introduced by DoCoMo. The main traffic use case when the connection and routing methods of the current PS domain were defined was user-to-server communication. However, user-to-user communication is expected to increase more and more as services and service usage diversifies; for example voice call over IP, chat, and online gaming. It was commented that many of these requirements are already supported by IMS. It was also commented that some of these requirements have inter-dependencies, e.g. optimal routeing and policy control.

TD S2-050723 Discussion on architectural requirements. This was introduced by Siemens. From service and general architecture point of view AIPN and the WID give sufficient high level requirements. For the design of the architecture a number of more detailed questions need to answered. This paper lists such questions. It is proposed to discuss these questions. If an answer can be agreed it should be added to TR requirements section. Otherwise the question should be captured until answered and an appropriate requirement is established or found as not necessary. It was commented that there was no harmonisation between Access Systems for Network Selection and this may not be under control of the AIPN. Siemens replied that this functionality may be provided by a number of interworking functions for the individual Access Systems. It was agreed that the questions presented in this should be captured somewhere in the draft TR. **It was agreed to include this in an annex of the draft TR "Open Issues".**

TD S2-050724 Discussion on Mobility Schemes. This was introduced by Siemens. An important decision for the design of a mobile network (i.e. AIPN) is the question whether the heterogeneous mobility will be terminal controlled or network controlled. Since mobility is not only a property of the radio access technology this contribution broadens the view and reflects the basic handover principles with main objectives for the architectural concept. Siemens concluded that a network controlled mobility scheme represents a more efficient and flexible as well as a cheaper mechanism to meet the overall requirements. Therefore, the mobility control function shall be located in the network and not in the terminal. It was clarified that the aim was to look in General at network access for mobility. It was commented that Wireless LAN access is considered Fixed access as it would usually use ADSL or Broadband Cable access. It was asked where the Generic Access Network fits into this scenario.

TD S2-050743 System Architecture Evolution – Key Requirements. This was introduced by Nokia. The 3GPP System Architecture Evolution Work Item studies the long-term evolution of the end-to-end 3GPP system. The target is to develop a competitive system architecture that provides optimal support for high bandwidth IP traffic and services on top of that. This document presents some high-level architectural requirements that will guide the work to meet the targets. It was clarified that requirement 4) was intended to reinforce the all-IP functionality. Requirement 5a) should be clarified. For requirement 2c) it was clarified that the idea was not to support for the A/Gb interface.

TD S2-050769 The General Requirements for 3GPP System Architecture Evolution. This was introduced by Orange SA. This document provides a summary of general requirements in defining the baseline architecture, the essential features and the functions.

In summary, there were some documents on General requirements, a number on detailed requirements on Mobility Management, QoS, Network Selection, etc. The General Requirements documents should be discussed together in an off-line drafting session to produce a single proposal for General requirements, which was provided in TD S2-050856 which was provided a proposal for some high-level requirements for approval by SA WG2 for insertion in the draft TR. It was clarified that these requirements apply to a 3GPP evolved architecture. The statement that the architecture should not assume the same operators also operate a Rel-6 3GPP system means that the evolved system operator may not operate a Rel-6 system. It was suggested that the final bullet says the architecture should support full network sharing. It was agreed to include bullets 1, 2 and 4 only and the document was revised in TD S2-050921 which was approved for inclusion in the draft TR.

The detailed requirements should be left until after the general requirements and structure drafting is complete. The questions from Siemens in TD S2-050723 will be included in an Annex to the draft TR, after drafting. The Annex proposal was provided in TD S2-050857 but was withdrawn for further discussion and re-submission at the next meeting.

The documents were above were then noted (except TD S2-050723, which was revised).

TD S2-050915 Architecture Baseline. This was introduced by Ericsson. At the last SA WG2 meeting a skeleton TR for "3GPP System Architecture Evolution: Report on Technical Options and Conclusions" was approved. The skeleton contains a chapter on architecture baseline that is intended to describe the starting point for the SA WG2 work. Starting content of the baseline architecture of 3GPP as described today up to Rel-6 was provided. There was some discussion around the Scope of the WI and the architecture figure. It was agreed that it should be clearly stated which additions from Rel-7 will be expected, include GERAN and UTRAN explicitly and add Billing System in lower part, add the Nb interface and replace "PDN" with "Internet" in the figure. The document was then revised in TD S2-050922 which was reviewed. It was noted that some more clarifications are needed on this as not all the comments were captured in the update and figure changes were not yet done, but the intention included in editors notes. The document was revised in TD S2-050962 which was reviewed and approved for inclusion in the draft TR.

TD S2-050649 Global terminal mobility for 3GPP System Architecture Evolution. This was introduced by Nokia on behalf of Nokia and T-Mobile. One of the objectives of the '3GPP System Architecture Evolution' work item is to address service continuity for devices moving between heterogeneous access networks This paper clarifies that an IP based, access technology independent mobility solution is needed, and proposes to use Mobile IP for this purpose and provides a proposal for inclusion in the draft TR. It was clarified that the Gi interface is between the Home CN and the 3G GPRS access as shown in figure 6.3. Mobile-IP charging was questioned, it was clarified that this is one of the issues for study. The contribution was noted for a basis for further discussion.

TD S2-050674 Inter-system Mobility Management. This was introduced by Nortel. This paper addresses Evolving the AIPN concept, and notably the AIPN mobility management. It is assumed here that both the AIPN mobility management and the inter-system mobility (a.k.a. 3GPP WLAN Scenarios 4/5) would be based on Mobile IP. Figure 1 was considered a useful start describing the three-strata concept. This document was noted and similar contributions were invited from Members to help fill out the baseline document.

TD S2-050607 Proposal on Architecture Baseline. This was provided by Fujitsu. This contribution proposes to take Rel-6 IMS and PS architecture as a basis of study on 3GPP System Architecture Evolution. This was covered by other discussions and was noted.

TD S2-050652 TR 23.803 v0.3.2. This was provided by the Rapporteur and was noted.

TD S2-050653 Go functionality provided by Gx+. This was provided by Nokia and was covered by other discussions and was noted.

TD S2-050654 Sp reference point. This was provided by Nokia and was covered by other discussions and was noted.

TD S2-050655 Subscription Profile Repository. This was provided by Nokia and was covered by other discussions and was noted.

TD S2-050656 Signalling Flows for Bearer Service Establishment, Modification and Termination. This was provided by Nokia and was covered by other discussions and was noted.

TD S2-050722 Generic 3GPP Packet Domain Architecture Description. This was provided by Siemens and was covered by other discussions and was noted.

TD S2-050592 Baseline architecture for the System Architecture Study. This was provided by Vodafone. In order to ensure that we can progress with the study into System Evolution it has been proposed that we create a baseline picture of the architecture that we are evolving from. To this effect, Vodafone has prepared this proposal for changes to section 4 of the TR. The aim is that the current PS domain architecture, as described in 23.002 should form the basis of our evolution study and the supported features should be based upon the existing set given in 23.060. This was covered by other discussions and was noted.

7.6 I-WLAN

TD S2-050597 Private Network access from W-LAN. This was introduced by NEC. The 3GPP W-LAN has been standardised in Rel-6 with the concept that the 3GPP W-LAN access has the equivalent functionality with what current PS domain provides. NEC believes that this concept includes the private network access from 3GPP UE. However, it seems that the private network access with PAP/CHAP authentication is NOT possible with Rel-6 W-LAN standard. A Work Item proposal was provided in TD S2-050599 which was reviewed. This was noted and NEC were asked to discuss this with operators and re-submit it if agreement can be reached.

TD S2-050599 Proposed W-LAN WI updates with Private Network access from W-LAN. This was introduced by NEC. As TD S2-050597 points out, NEC would like to standardise the Private Network access from W-LAN as the 3GPP Release 7 W-LAN feature. It was argued that the current Architecture does support Corporate Network Access. This was noted and NEC were asked to discuss this with operators and re-submit it if agreement can be reached.

TD S2-050598 LS on Private Network access from W-LAN. This was noted as no response will be sent until the issues in TD S2-050597 and WID in TD S2-050599 can be agreed.

TD S2-050606 Location for I-WLAN. This was introduced by Lucent Technologies. This paper presents a proposed way forward to provide location services subscribers attached to a WLAN. It was asked whether having the UE perform this was a viable and secure solution. It was clarified that, for commercial solutions, i.e. not emergency use, malicious users in the commercial case did not seem a serious threat scenario. It was not intended to modify MAP for this proposal. It was reported that SA WG1 were defining LCS services for I-WLAN for scenarios 3 onwards. This scenario 2 proposal is not yet being worked on in SA WG1. It was also reported that this was in line with work ongoing in the GSMA. This document was noted in this meeting and if there are alternative proposals they should be contributed to SA WG2.

TD S2-050699 Draft skeleton for TR 23.8bc “QoS and policy aspects of 3GPP/WLAN Interworking”. This was introduced by Samsung. This draft TR was approved.

TD S2-050718 QoS enhancement for 3GPP-WLAN Interworking. This was introduced by T-Mobile. The contribution discusses QoS enhancement for 3GPP-WLAN Interworking. It was clarified that this authorisation of services was in line with the current 3GPP functionality. It was asked if both User-initiated and Network-initiated is considered. It was clarified that this contribution considers mainly User-initiated but there is a Push action in the 3rd bullet which is network-initiated. Some clarification of the terminology was considered necessary. This contribution was revised to include comments off-line in TD S2-050881 which was reviewed. It was commented that bullet point 2 didn't make any sense and should read WLAN ANs. Bullets 5 and 7 should specify "3GPP AAA server/Proxy". This was modified and the CR revised in TD S2-050963 which was approved.

7.7 Service Continuity

TD S2-050665 Draft Voice Call Continuity between CS and IMS TR. This was introduced by Lucent Technologies. This draft TR skeleton "Voice Call Continuity between CS and IMS Study" was provided for discussion and approval. It was noted that clause numbering should not start at ".0", but ".1" and the history should be changed from 2004 to 2005 for the start date. The statement in the Introduction: "*This assumption is not realistic for real-time voice services*" was questioned, because no analysis on this has been done so far. It was suggested that the second paragraph is removed and text indicating that this TR is intended to be a generic solution (not just for WLAN) is added. The TR was revised in TD S2-050893 which was reviewed. It was suggested to remove the word "seamless" throughout the TR. It was agreed to do this and contributions were invited to the next meeting to find a better description. The TR was revised in TD S2-050966 which was approved.

TD S2-050666 Proposed updates to Skeleton VCCCI TR. This was introduced by Lucent Technologies. As a result of analysis of the scope of the approved WID, the structure of the proposed TR for Voice Call Continuity should be updated to provide a level of categorization not found in the original TR skeleton. It was confirmed that "GSM" should also include UTRAN and this should be included in the update of the TR. The division of Architectural

requirements to include sections on Origination Requirements and Termination Requirements was questioned. It was suggested that guidance of the expected content of the sections is provided. These comments should be taken into account for a future contribution and the document was then noted.

TD S2-050531 Service Continuity – Basic Assumption. This was introduced by Motorola on behalf of Motorola, Cingular, SBC, LG Electronics and Lucent. At SA WG2 meeting #44, a WID (TD S2-050495) for Voice Call Continuity between CS and IMS (including I-WLAN) was approved. This contribution proposes text to be included in the Basic Assumptions section of the new TR. It was commented that Supplementary Services are not included in this proposal and should be referred to. It was clarified that Supplementary Services should not be defined in this TR. Clarification of the basic assumptions were requested for the scope, the reference to 24.008 and support of UEs with specific functionality. It was also asked if the assumption on reaching the user on the same identity (e.g. MSISDN) in both IMS and GSM/UMTS CS networks; This was also an impact on CSI users which should be mentioned. It was suggested that connectivity should also be possible on the PS Domain on GERAN/UTRAN and it should also be checked if this is correct as GSM Class A mobiles cannot receive on CS and PS at the same time. These issues were discussed off-line and the contribution revised in TD S2-050894 which was included in TD S2-050920 (see report on TD S2-050920).

TD S2-050730 Basic Assumptions and Questions. This was introduced by Siemens. This contribution contains a list of basic assumptions and lists some open issues. In the case of Emergency Call it was questioned whether GERAN/UTRAN should be the first choice in all use-cases. It was explained that the IMS Emergency Call would need to be developed before using this. It was commented that there may be situations where the operator may wish the services to be different in different domains. There seemed to be a mixture of requirements and potential solutions and this should be clarified in the proposal. It was clarified that 1 voice channel refers to 1 voice stream. Further clarification on the attach methods should also be used, e.g. "IMSI-attached" or "IMS-attached". It was suggested that Feature interaction should be changed to Supplementary Services. It was agreed to include bullets 3, 5, 7,6 and 14, modified as agreed and included in TD S2-050920 (see report on TD S2-050920).

TD S2-050920 Service Continuity – Basic Assumption. This was provided by Motorola, Cingular, SBC, LG Electronics and Lucent. At the last S2#44 meeting, a WID (S2-050495) for Voice Call Continuity between CS and IMS (including I-WLAN) was approved. This contribution proposes text to be included in the Basic Assumptions section of the new TR. It was commented that "CS-only UEs, PS-only UEs" is not needed in the second bullet. The final bullet was removed and replaced by an editors note, a reference corrected and *"Siemens"* removed from the sub-bullet and the document was revised in TD S2-050964 which was approved.

TD S2-050530 Service Continuity – Scope This was introduced by Motorola on behalf of Motorola, Cingular, SBC, LG Electronics, Nortel and Lucent. This document contains the results of the feasibility study into the architectural requirements and alternatives for the real-time voice call continuity between Circuit Switched (CS) domain and the IP Multimedia Subsystem (IMS). Considerations include overall requirements, architectural requirements, evaluation of potential architectural solutions and alternative architectures. Motorola propose to include the proposed texts in section 2 to the baseline TR. It was clarified that for Voice call related functionality, the scope was for the provision of this and not the continuity. The statement "investigate mechanisms for selecting the most appropriate network domain" was questioned as this was ongoing work in SA WG1. It was also questioned whether specific Network Selection solutions or a generic solution should be developed. It was noted that the impact on CSI would need study and this was included in the proposed scope. It was suggested that the list of items not in the scope could be removed. This was discussed off-line and the document revised in TD S2-050895 which was reviewed and approved.

TD S2-050532 Service Continuity – Overall Requirements. This was introduced by Motorola on behalf of Motorola, Cingular, SBC, LG Electronics, Nortel and Lucent. At SA WG2 meeting #44, a WID (TD S2-050495) for Voice Call Continuity between CS and IMS (including I-WLAN) was approved. This contribution proposes text to be included in the Overall Requirements section of the new TR. It was commented that the final bullet could be removed or updated to include 3GPP radio systems. The need to consider voice call handover should also be included. It was also commented that this is for IMS calls and this requires ISIM and USIM which implies some contradiction on the usage examples. It was clarified that the intention was not to change requirements on ISIM or USIM. This was discussed off-line and the document revised in TD S2-050896 which was reviewed and approved.

TD S2-050533 Service Continuity – Architectural Requirements. This was introduced by Motorola on behalf of Motorola, Cingular, SBC, LG Electronics, Nortel and Lucent. At SA WG2 meeting #44, a WID (TD S2-050495) for Voice Call Continuity between CS and IMS (including I-WLAN) was approved. This contribution proposes text to be included in the Architectural Requirements section of the new TR. It was questioned why IDLE mode is not included. It was explained that this is included in the second bullet. It was clarified that "selection" includes "re-selection" in the active mode. It was commented that the terminology should be consistent for IDLE mode. On the

3rd bullet the terminating handling of multiple devices relates to the network selection part, but this tries to take both domains into account. This could be modified to prevent a wrong interpretation of the text. On the 9th bullet, it was clarified that this is a generic requirement leaving the solution open until after the study. From the text in this bullet, it is implied that the UE makes the decision when to transfer between CS and IMS. It was clarified that in, e.g. WLAN, the UE makes the decision to change and the Network can only accept or reject the request. It was argued that this is a solution, rather than a requirement and it was suggested that at this stage the requirement should be more generic. It was agreed that this should read that user preferences and operator preferences shall be taken into account. It was suggested to replace "IDLE mode" with "when not in a CS or IMS voice call" for clarity. This was discussed off-line and the document revised in TD S2-050898.

Bullet 7 of section 5.1, "seamless" should be replaced with "with minimal disruption", taking into account later agreements with TD S2-050539 so this was again revised in TD S2-050924 which was approved..

TD S2-050534 Service Continuity – Supporting of Supplemental Service. This was introduced by Motorola on behalf of Motorola, SBC, LG Electronics, Nortel and Lucent. This document contains the results of the feasibility study into the architectural requirements and alternatives for the real-time voice call continuity between Circuit Switched (CS) domain and the IP Multimedia Subsystem (IMS). Considerations include overall requirements, architectural requirements, evaluation of potential architectural solutions and alternative architectures. Motorola propose to include the proposed texts in section 2 to the baseline TR. It was suggested that the basic question here was a subject for SA WG1. This contribution was discussed and noted.

TD S2-050535 Service Continuity – Scenarios. This was introduced by Motorola on behalf of Motorola and Lucent. At SA WG2 meeting #44, new WID (TD S2-050495) for Voice Call Continuity between CS and IMS (including I-WLAN) was approved. This contribution proposes text to be included in the architectural requirements section of the new TR. There were questions on the requirements. It was clarified that this proposal provides scenarios, not requirements. This was then approved for inclusion in the draft TR.

TD S2-050773 Service Continuity – Operator Scenarios. This was introduced by Motorola. This contribution introduces the various operator's scenarios for discussion, the result of the decision will have impact to the final design architecture solution. This contribution provides an initial set of service provider scenarios to serve as a basis for discussion. This was discussed and no agreement could be reached on the content, so the contribution was noted.

TD S2-050539 Proposed solution for service continuity. This was introduced by NEC. Proposes an architectural solution for service continuity, including information flows. It was commented that in the Generic Access work in GERAN they have already addressed the issue of Objective 1 and their solutions should be taken into account. For Objective 2, the current specification work on Network Selection can also be considered for Generic Access work. It was suggested that SA WG1 are consulted for the requirements for generic access in conjunction with service continuity. NEC requested that the proposals for Manual Selection and to allow short (e.g. < 300 ms) disruptions of the communication should be captured in the draft TR, so TD S2-050898 was revised to TD S2-050924 to take this into account. **Manual Selection was agreed in principle to be included in the requirements section of the draft TR and is to be developed further by contribution to the next meeting.**

TD S2-050641 Definition and description of operator control. This was introduced by China Mobile. It is proposed that operator control is classified into two kinds and corresponding content is to be added to the TR associated with the WI. It was asked whether this implies Network Selection, Access Selection or both. China Mobile responded that this would be an operator option and Operator-based control mechanisms should also be developed. It was reported that operator-based control should be possible between GERAN and UTRAN. It was commented that the definition of operator control was vague and needs to be clarified. This was reviewed off-line and the document revised in TD S2-050925 which was reviewed. It was commented again that the text in 5.1.x.1 was unclear as to what access networks are intended by "attempts to select an access network to access services". It was suggested that an editors note is added stating that this document will have to be harmonised with the SA WG1 documentation for requirements, definitions and terminology for network selection. The document was revised to take comments into account in TD S2-050965 which will be forwarded for e-mail approval.

7.8 LCS

TD S2-050565 LS from OMA LOC WG: Response to 3GPP TSG SA WG2 on support for velocity information in the OMA LOC protocols. OMA LOC ask SA WG2 to confirm whether it is acceptable that any additional provisions for velocity are addressed in a subsequent MLS Enabler release and to indicate the timeframe for which velocity support is required, i.e. with respect to 3GPP Rel-7. It was proposed that the response to this LS be made at the next SA WG2 meeting, but it was thought that a reply could be made now, except that the timescale for Rel-7 is not

known. A response LS was provided in TD S2-050908 which was reviewed. It was decided to copy this to GERAN WG1, GERAN WG2, RAN WG2, RAN WG3 and CT WG4. The LS was revised in TD S2-050951 which was approved.

TD S2-050604 Proposed CR 0012 to 23.032: Civil Address Form of Location. This was introduced by Lucent Technologies. Summary of change: This CR adds the civil address form of location to the supported GADs. It was asked whether the Civil Address will be provided at the SIP level. It was clarified that this is not a description of the protocol and this would need to be done by CT WGs. It was commented that the Location Services work was incomplete and that 3GPP should not invent new protocols while the work is ongoing in other bodies. It was considered necessary to explain if, when and how such information is needed before considering such a CR. The CR was then noted.

7.9 Selective Disabling

TD S2-050589 Skeleton TR 23.8de for Selective Disabling of UE Capabilities; Report on Technical Options and Conclusions. This was introduced by Vodafone. This Skeleton TR presents an assessment of different service architecture implementations for the new Selective Disabling of UE Capabilities specified in TS 22.011, Section 4.5. It was commented that the introduction looks like the OMA Device Management Service and it was asked whether there was an overlap of work here. It was clarified that this TR was to allow the selective disabling of User services and to inform the user what is needed to get the service back on-line. It was suggested that "service architecture" is removed from the introduction as this is OMA work and to clarify the difference to the OMA device management work. It was reported that the OMA have not yet decided whether selective disabling will be part of device management and that the OMA device management may be a mechanism that will be used for the selective disabling of User services. Clarification on the set of user services and individual services is needed in the TR in order to ensure that services like emergency calls are not disabled with other services. It was recognised that SA WG1 should be consulted to clarify these issues. It was suggested that the latest text from 22.011, section 4.5 is re-inserted as an editors note. The draft TR was revised in TD S2-050889 which was reviewed and approved.

TD S2-050590 Selective Disabling of UE Capabilities – (U)SIM File Based Architecture. This was introduced by Vodafone. The ability to Selectively Disable services on a misbehaving UE could be achieved by specifying a new "Selective UE Capabilities list" stored on the (U)SIM and copied to the ME describing which services are enabled/disabled on a particular UE. The Selective UE Capabilities list could take the form of a list of n-bits indicating whether or not a particular service was active or disabled. It should be noted that it would only be necessary to disable mobile originating services to protect the network operator's resource. It was suggested that the (U)SIM should not need to be updated for this functionality to be implemented. It was clarified that the action of informing the user (to allow the user to resolve the problem) would require a small update to the (U)SIM. It was also commented that the solution should include the (U)SIM because this is the most secure unit available to the operator. It was commented that the protocol stacks on terminals need to be designed in a secure, robust way so that virus attacks are avoided, with use of type-approval and that the USIM-ME interface needs to be highly trusted. It was responded that applications will not be subject to type approval. It was also clarified that this solution is a reactive solution to misbehaving terminals and does not tackle the protection of the terminal from abuse or virus attacks. It was explained that this solution includes a minimal impact on the existing functions (the main impacts are the IMSI database and the information to the user). There was some discussion about whether this proposed solution should be included in the draft TR. It was agreed that this should be added to the draft TR and contributions were encouraged to the next meeting to update this, or to propose other solutions. Analysis of the solutions can then be carried out and the draft TR can be revised appropriately.

TD S2-050651 Alternative architecture for Selective Disabling of UE Capabilities. This was introduced by Nokia. Four alternative architectures for Selective Disabling of UE Capabilities have been presented in TD S2-050222 in SA WG2 meeting #44. However, these alternatives have some deficiencies in meeting the stage 1 requirements of TS 22.011. This document presents a new alternative, where these requirements can be met. It was commented that this was a useful contribution and should be included in the draft TR. It was suggested that SA WG1 should be consulted for a clarification of the requirements in order to verify the proposals. The possibility for the user to reset disabled capabilities was questioned, although it was presumed that the network would re-disable the capabilities if they are misbehaving. It was clarified that this architecture proposal stores the parameters on the UE, because the capabilities lists are related to the terminal and not the subscription (USIM). It was clarified that the requirements on VPLMN were under discussion in SA WG1 and are not included in this proposal at present. The proposal was updated to align the description with that in TD S2-050590 and to take into account comments raised, in TD S2-050890 which was reviewed and approved. An outgoing LS to SA WG1 was drafted in TD S2-050891, which was withdrawn, since no agreement on wording was reached, and there are still two SA WG2 meetings before the next SA WG1 meeting.

It was suggested that an LS to inform the OMA of these proposals is written. It was considered better to wait until SA WG2 have analysed proposals and agreed on an architecture before liaison is made on this with OMA.

TD S2-050967 Draft TR "Selective Disabling" after inclusion of agreed changes at this meeting. This TR was noted for checking and use as a basis for further changes.

8 Drafting groups during the week

8.1 Evolution of Policy Control and Charging [PCC]

TD S2-050837 REPORT, PCC and FBC Drafting Session. The report of the drafting meeting was approved.

Documents for approval:

TD S2-050750 Naming of PCCN (Ericsson). This contribution discusses and proposes a change of abbreviation to the PCCN to PCRF. This was approved.

TD S2-050844 Go functionality provided by Gx+ (Nokia). This contribution defines how the Rel-6 Gx interface needs to be developed to support also Rel-5/Re-6 Go and proposes some additions to TR 23.803. This was approved for addition to the draft TR.

TD S2-050845 Sp reference point (Nokia). This contribution describes Sp reference point and proposes additions to TR 23.803. This was approved.

TD S2-050847 General amendments (Ericsson). This was approved for addition to the draft TR.

TD S2-050852 PCCN addressing from the GW (Ericsson). This was approved for addition to the draft TR.

Open documents to be handled:

TD S2-050838 Proposed CR 0128R1 to 23.125: Alignment of Re-authorisation triggers (Rel-6). This was introduced by Vodafone. Adds quota threshold and forced re-authorisation as triggers for re-authorisation. This CR was approved.

TD S2-050839 TPF behaviour in case of no charging rules for a bearer (Siemens). It is proposed to clarify that a bearer service can be only successfully established if there was at least a single charging rule - with available credit in case of online charging - installed for this bearer service. If no charging rule was installed for this bearer service or no credit is available for any of the charging keys of the installed charging rules, the TPF shall reject the bearer service establishment. In situations where there is no charging rule or available credit for a successfully established bearer service at any later point in time (due to a bearer service modification or due to an unsolicited provisioning of charging rules by the CRF), the TPF may initiate a bearer service termination. It was proposed to add installed in the first modified paragraph. This was agreed and a revised version was provided in TD S2-050930 which was approved.

TD S2-050841 DRAFT LS on DCC session handling. This was introduced by Ericsson. This LS asks SA WG5 to ensure that Gy reference point fulfils TS 23.125 and to take note that the optimization of Gx over Gy is not critical in a release 6 context. It asks CT WG3 to ensure that Gx reference point fulfils TS 23.125. The non-mandatory Rel-6 support of Gx and Gy was added and information about fulfilling TS 23.125 Gy with or without the use of sub-sessions was clarified. The LS was revised in TD S2-050952 which was reviewed. There was discussion over the understanding of SA WG2 on the implementation of TS 23.125 in TS 29.210. This was clarified and draft removed in TD S2-050958 which was approved.

TD S2-050846 Adding an Editors Note on E2E QoS WI (China Mobile, Ericsson). This adds an editors note to the Scope of the TR "The document may also study the impact on policy control and flow based charging architecture based on the conclusion and approved recommendations of the E2E QoS Work Item in a Release 7 context if deemed feasible". This was approved for addition to the draft TR.

TD S2-050848 This contribution was withdrawn

TD S2-050849 This contribution was withdrawn

The following documents were left for **e-mail approval** after the meeting:

TD S2-050840 Proposed CR 0127 to 23.125: FBC Terminology amendments (Ericsson).

TD S2-050842 Proposed Requirements to Draft TR 23.803 (Ericsson).

TD S2-050843 Charging and policy control requirements (Ericsson).

TD S2-050850 PCC: QoS enforcement over the Gx+ interface. Proposed changes to Draft TR 23.803 (Nortel).

TD S2-050851 PCC: Gq/Rx reference point and protocol. Proposed changes to Draft TR 23.803 (Nortel).

TD S2-050853 Criteria for binding (Ericsson).

TD S2-050854 PCC: Limitations of the Authorization Token and TFT binding mechanisms (Nortel).

The Chairman was thanked for chairing the meeting and the delegates for their hard work.

8.2 E2E QoS [E2EQoS]

TD S2-050631 E2E QoS session report. The report of the E2E QoS session was introduced by E2E Session Chairman.

The following revised liaison statement was not reviewed by the drafting group and needs to be reviewed by SA WG2 plenary or handled via the e-mail approval process:

TD S2-050872 DRAFT LS on Interconnection Models for IMS networks in an End-to-End QoS context. It was noted that it references the version of the TR expected after this meeting, so if there are any e-mail approval for this, sending of the LS will need to be delayed. This LS was modified in TD S2-050931 which was reviewed and modified with an extra bullet and draft removed in TD S2-050960 which was approved.

The following documents were agreed by the drafting group and need to be approved by SA WG2 plenary:

TD S2-050633 TR 23.802 v0.4.0, Architectural Enhancements for E2E QoS. This was introduced by the Rapporteur and was approved

TD S2-050873 E2E QoS: Session Aware Intermediate Networks. This was introduced by Nortel Networks. This paper proposes amendments to clause 5.2.1 of 23.802 in order to clarify that the connection model is session aware and that session control and media packets take the same route even when users are roaming. The connection model is also amended to align better with ITU FG NGNTR-RACS and to differentiate between intra domain and inter domain IP networks. This was approved for inclusion in the draft TR.

The following revised documents were not reviewed by the drafting group and need to be reviewed by SA WG2 plenary or handled via the e-mail approval process:

TD S2-050861 Application of MPLS in on-path QOS signalling. This was introduced by ZTE Corporation. This contribution provides a methods on MPLS-TE used as on-path QOS signalling. MPLS-TE is a feasible mechanism to guarantee the QOS resource by definition of the priority and grab of resource. While the PEP and the routers in the Backbone IP network are equipped with MPLS-TE, the QOS class will be mapped to LSP priority used from PEP through routers to the other PEP. This was approved for inclusion in the draft TR.

TD S2-050862 E2E QoS: Feedback based Call Admission Control. This was introduced by Nortel. This paper proposes to add text to the feedback based call admission control architecture description to clarify how the solution interacts with SLAs and Call Admission Control. The proposed text also includes a description of how ECN and Diffserv remarking schemes can be coordinated end-to-end by making use of the recommendation of the IETF draft on Diffserv Service Classes [draft-ietf-tsvwg-diffserv-service-classes-00.txt]. This was approved for inclusion in the draft TR.

TD S2-050863 BCF discovery in off-path model for TR23.802. This was provided by Huawei and China Mobile. This contribution provides the mechanism of how does the PDF discover the BCFs which is in the external IP network. It was commented that the proposed mechanism only works if there is only one adjacent domain. An

editors note was added to clarify this restriction and the document was revised in TD S2-050932 which was approved. More contribution was expected at the next meeting on this topic.

TD S2-050864 Profile in the PDF and BCF for the path choosing. This was introduced by ZTE Corporation. This contribution provides a solution about choosing path for the PDF and BCF while resource in some domain in the off-path is insufficient. It was clarified that the criteria for the PDF choosing the connected external network is for further study. This was clarified in the document by the addition of an editors note and the document was revised in TD S2-050933 which was approved for inclusion in the draft TR.

TD S2-050865 Complements on agreement between the UMTS and Backbone IP network. This was introduced by ZTE Corporation. This contribution complements the description on agreements between the UMTS and the external networks. It was commented that there should not be a need for Service Level Agreements with all WLAN operators, and the agreements should be only with the nearest external network. Also, "UMTS network" should not be used, so the sentence was removed in 5.2.1.1 and the document revised in TD S2-050934 which was approved for inclusion in the draft TR.

TD S2-050867 Procedures for the on-path model. This was introduced by Ericsson. The procedures for feedback based call admission control with continuous monitoring need to be added to the TR 23.802. It is proposed to make additions to the TR. It was commented that the requirement was not to introduce new functionality in existing routers. In this case how do networks communicate through another network not supporting this. It was clarified that this would need to be done using tunnelling. There was some doubt whether this would work in practice and it was suggested that an editors note is added to say that the need for new router functionality was for further study. As the contribution did not provide the clarification wanted, it was withdrawn.

TD S2-050868 Procedures for the on-path model. This was introduced by Ericsson. The procedures for feedback based call admission control with continuous monitoring need to be added to the TR 23.802. It is proposed to make additions to the TR. The document was modified to clarify step 8 with text from step 2 and revised in TD S2-050935 which was approved for inclusion in the draft TR.

TD S2-050869 E2E QoS: Feedback based Call Admission Control FAQs. This was introduced by Nortel. This paper attempts to answer the detailed questions raised at SA2#44 regarding the feedback based call admission control proposal and in particular the RT-ECN probe. This paper is provided as supporting information in an FAQ style format and it proposes adding information contained in the FAQ answers to the TR 23.802 to clause 6.1.3.3. This was approved for inclusion in the draft TR.

TD S2-050874 Security aspects of the off-path model for TR 23.802. This was provided by Huawei and China Mobile. This contribution provides some consideration of the security aspects of the off-path QoS model when interaction with the external IP network. This was approved for inclusion in the draft TR.

TD S2-050871 E2E QoS for non-IMS applications. This was introduced by Ericsson. The E2E-QoS study has so far been solely focused on studying IMS based applications. Even if most applications might be possible to provide within the IMS framework, operators and content providers may have reasons to provide E2E-QoS for applications not using IMS. Different applications exists today that may increase the end-user experience by having E2E-QoS. These include streaming radio and MobileTV. Therefore in our study we should not exclude the future possibility to provide E2E-QoS for non-IMS applications. Additions to TR 23.802 are proposed. This was approved for inclusion in the draft TR.

The following documents were not reviewed by the drafting group and were postponed to the next meeting:

TD S2-050613 Cleanup of references (Huawei).

TD S2-050708 Re-use of existing IP-CAN's QoS mechanisms (Ericsson).

TD S2-050760 E2E QoS: General Requirements (Nortel).

TD S2-050761 E2E QoS: Issues of connection models (Nortel).

TD S2-050762 E2E QoS: IP networks without QoS signalling (Nortel).

TD S2-050771 Analysis and Comparison of the four End-to-End QoS Connection Models (Orange SA).

The Chairman was thanked for chairing the meeting and the delegates for their hard work.

TD S2-050936 Draft TR 23.802 after update at SA2#45. This included the agreed changes at this meeting (v0.5.0) and was approved.

8.3 Combining CS bearers with IMS [CSI]

TD S2-050788 Draft report of CSI drafting session. This was introduced by the Convenor of the CSI Drafting Session.

Agreed documents for approval:

TD S2-050816 Clarifications for the scope of the CSI TS (Siemens). The scope of TS 23.279 lists mainly the capabilities that are used to combine CS and IMS services. It is missing that these services are established between the same two users. The limitations of CSI phase 1 do not allow to use the CS call as an IMS media component. This should be corrected. Furthermore it should be clarified that CSI is no service on its own and it does not allow for specific subscription or for specific charging that correlates CS call and IMS charging. This was approved for addition to the draft TS.

TD S2-050809 Adding scenario: Simultaneous CS and IMS setup (Motorola). Stage 1 has defined requirement that from a user's perspective, the solution should enable the simultaneous setup of a CS call and IMS session. The call flows in TS 23.279 do not clearly show handle this scenario. Based on discussion in SA2#45, there was consensus that the scenario could be handled either by setting up an IMS session first and then using the call flow for adding a CS call to the IMS session, or by setting up an IMS session first and then using the call flow of adding a CS call to an IMS session. This needs to be added to the architectural requirements section of TS 23.279. This was approved for addition to the draft TS.

TD S2-050810 Service-based Charging in the context of CSI (Siemens, Ericsson). TS 23.279 v0.1.1 contains an Editor's note in chapter 6 stating that the functionality to be provided by the IMS core to support CSI e.g. the collection of charging information based on media actions (e.g. number of pictures transferred) is for further study. This contribution proposes a clarification of this Editor's note based on the messaging charging principles already agreed in TS 23.228. This was approved for addition to the draft TS.

TD S2-050811 CSI Service Logic (Siemens, Ericsson). This paper attempts to progress the discussion regarding the view of the CSI service logic and relationship to "IMS communication enablers" from the terminal point of view. An example terminal implementation shall help to understand how to combine two parallel services within the terminal to offer an IMS-enriched CS call or a CS-enriched IMS session to the user. This was approved for inclusion in the draft TS.

TD S2-050814 CSI UE capability exchange (Ericsson). This paper addresses the open issues with the UE capability exchange procedure in TS 23.279 and proposes additions and changes to TS 23.279. This was approved for addition to the draft TS.

TD S2-050717 Correction of Interaction of CSI with Call Waiting and Call Hold (T-Mobile). The contribution corrects the Interaction of CSI with Call Waiting and Call Hold. CSI has no requirement to allow a user to combine an established IMS session with an incoming CS call. This was approved for inclusion in the draft TS.

Agreed Liaison Statement:

S2-050813 DRAFT LS on exchange of radio capabilities in CSI (To GERAN WG2, RAN WG2). This was provided by NEC. The LS was reviewed and updated to remove draft and add "?" in TD S2-050937 which was approved.

Open revised documents:

TD S2-050815 Additions of IMS service to a CSI call. This was introduced by Ericsson. This was approved for inclusion in the draft TS.

TD S2-050807 DRAFT LS, Reply to CN1 LS reply on protocol aspects for CSI. This was provided by Nortel. The LS was reviewed. The stability of the draft for stage 3 work to start was checked and it was considered fairly stable (70%) by the Rapporteur, so some work could start in CT WG1. The LS was updated with this information and to remove draft and revision marks in TD S2-050938 which was reviewed and revised again to remove the revision marks in TD S2-050954 which was approved.

The draft TS was updated with all agreed changes and provided by the Rapporteur in TD S2-050939.

The Chairman was thanked for chairing the meeting and the delegates for their hard work.

9 Project Planning and Management

9.1 New and revised Work Items

TD S2-050640 WID on MBMS Enhancements (Rel-7). This was introduced by China Mobile. Current version of MBMS provides the basic broadcast and multicast services capabilities in 3GPP networks. With this WI a second step will be taken to enhance and sophisticate these services in a backward compatible way. Optimization of MBMS architecture and procedure are necessary. The interface from BM-SC to OCS and the interface between BM-SCs should be open for flexible service providing. As the work in SA WG4 for MBMS User Service almost finished, the MBMS Bearer architecture should also alignment with it. QoS and priority mechanism should also be considered. It was reported that there is a proposed WID in SA WG1 and it was clarified that this is related to this WID. China Mobile have contributed these WIDs independently, but they are linked in the WIDs. If SA WG1 approve their WID, then this WID will be updated to align them. It was also clarified that the SA WG2 work would consist of alignment of their specifications but the exact work would need some study in SA WG4 in order to determine the work needed in SA WG2. It was commented that the Objectives, bullets 3 and 4, *Open interface with other entities, such as OCS and BM-SC, between BM-SCs* was not clear what these interfaces are and that the *QoS and priority aspects* would depend on what this WID really is, as if it is increased bit-rate this should not affect the architecture. For bullet 2, *Necessary alignments to meet the MBMS User Service progress* it was asked if this mis-alignment exists in Rel-6 in which case this could be handled with Rel-6 CRs. It was commented that the SA WG1 WID was a study for using MBMS Bearer Service for other services and not alignment with SA WG4. It was agreed to discuss this off-line and come to a common understanding of this WID. There was a request for a discussion document on these bullets in order to give a detailed view of the intention of this WID. The WID was updated after off-line discussions in TD S2-050793 which was reviewed. It was suggested that SA WG1 be asked to provide input on this work item before continuing in SA WG2 too fast, because time may be wasted in SA WG2 correcting the architecture work when SA WG1 have provided the stable requirements. China Mobile responded that the WI was linked to a SA WG1 WI and some parallel work is intended. Due to the objection received, this WID was noted and off-line discussion was encouraged.

TD S2-050679 Discussion on UEP study for VoIMS. This was introduced by Nortel. Nortel would like to invite the opinion from other companies on the creation of a new WI to study technical solutions to provide UEP for voice over PS domain. If it is estimated that current VoIMS performances should be enhanced, Nortel suggests studying solution in the Release 7 timeframe. Although there was support for this work, it was questioned whether this should be studied first in RAN WG2 and it was asked whether this is more relevant for SA WG4 than for SA WG2. It was clarified that there would be a need for signalling between the RAN and the UE for this, which is the responsibility of SA WG2 to specify. It was argued that there would be a bigger impact on the RAN and so it should therefore be studied first by RAN WGs. A related contribution was provided in TD S2-050671, which was also reviewed:

TD S2-050671 Discussion on the support of "Telephony" over IP over a cellular access. This was introduced by Ericsson. As currently 3GPP does not have a defined service for IP Multimedia Telephony over a cellular access, this document raises some of the issues that have been identified that would require further study for the support of All-IP multimedia communication over a cellular access. This contribution raises a number of issues that need further study in order to support the mass market telephony / IP for a cellular access. It is suggested that 3GPP initiates work in order to resolve these issues. There was some support to study issues and also some request for clarification of some of the issues raised. Members were asked to discuss these issues more off-line and a contribution from Nortel in TD S2-050794.

It was reported that there are discussions ongoing for creating a Work Item on UEP study for VoIMS and another on "Telephony" over IP over a cellular access. After this, TD S2-050679 and TD S2-050671 were noted. and interested companies were asked to discuss this off-line and contribute to the next meeting.

TD S2-050794 Discussion on the support of VoIP in UMTS/HSDPA. This was introduced by Lucent Technologies. Discussion of VoIP over UMTS/HSDPA, this was related to TD S2-050671 and these documents were discussed off-line together. This contribution was noted and interested companies were asked to discuss this off-line and contribute to the next meeting.

9.2 Review of the 3GPP Work Plan

There were no specific contributions under this agenda item. The work plan will be revised at the next meeting of SA WG2.

10 Outgoing LSs

A list of Outgoing Liaisons is provided in Annex A, clause A.2.

11 AOB and Postponed Issues

11.1 Review of Future Meetings

TD S2-050956 Future meetings. This was introduced by the SA WG2 Chairman and detailed the meetings planning for SA WG2 related meetings and joint sessions.

TD S2-050540 Calendar of 3GPP meetings for 2005 / 2006. This was provided by MCC for information and was noted.

12 Close of the Meeting

The SA WG2 Chairman thanked the hosts for the excellent meeting location and arrangements and social event. He also thanked the SA WG2 delegates and the MCC support for their active participation in the meeting. He then closed the meeting.

Annex A: Summary of Output

A.1 Work Items

There were no new or revised WIDs approved at this meeting.

A.2 Liaison Statements

The following LSs were approved by SA WG2 and sent to the corresponding groups by MCC.

TD number	Title	Attachments	TO	CC
S2-050937	LS on exchange of radio capabilities in CSI	TS 23.279 v1.1.0	**RAN WG2, GERAN WG2**	**-**
S2-050941	Reply LS on Control of simultaneous accesses for WLAN 3GPP IP access	S2-050574 / S3-050179 (with attached S3-050151)	**SA WG3, CT WG1, CT WG4**	**-**
S2-050943	Reply LS on Shared Public Identity	-	**SA WG5-SWGA**	**CT WG4**
S2-050944	LS reply on service based inter-system hand over	-	**CT WG1**	**SA WG1, GERAN WG2, CT WG3**
S2-050945	Reply LS on Mandating functionality in WLAN ANs	-	**SA WG1, SA WG5, CT WG4**	**SA WG3**
S2-050946	Reply to LS on MBMS Session Duration IE	-	**GERAN WG2, RAN WG3, CT WG3, CT WG4**	**RAN WG2**
S2-050948	Reply LS on MBMS User Service finalization from SA4	-	**SA WG4**	**RAN WG1, RAN WG2, RAN WG3, RAN WG4, SA WG1, SA WG3, CT WG1, CT WG3**
S2-050949	Reply LS on MBMS Session Repetition from SA4	-	**SA WG4**	**RAN WG2, RAN WG3, CT WG1, CT WG3, CT WG4, GERAN WG2**
S2-050950	Reply LS on Harmonization of SMS/MMS over generic IP access	TR 23.804 v1.1.0	**ETSI TISPAN WG2, ETSI AT**	**-**
S2-050951	Reply LS to OMA-LOC on support for velocity information in the OMA LOC protocols	-	**OMA LOC**	**GERAN WG1, GERAN WG2, RAN WG2, RAN WG3, CN WG4**
S2-050953	LS on 3rd party registration and shared public user identities	-	**CT WG1**	**-**
S2-050954	LS, Reply to CT1 LS reply on protocol aspects for CSI	TS 23.279 v1.1.0	**CT WG1**	**-**
S2-050958	LS on DCC session handling	-	**SA WG5, CT WG3**	**-**
S2-050959	LS on GPRS P-CSCF discovery procedure	-	**CT WG1, CT WG3**	**-**
S2-050960	LS on Interconnection Models for IMS networks in an End-to-End QoS context	TR 23.802 v0.5.0	**GSMA IREG Packet, GSMA IP Interconnection, GSMA IWG/QoSI**	**GSMA IREG,**
S2-050968	LS on MBMS Bearer Capability use	-	**RAN WG2, CT WG1, GERAN WG2**	**RAN WG3**

A.3 TRs / TSs

The following updated draft TSs and TRs were provided to the meeting. The latest versions should be used as a basis for further changes:

TD No	Description	TS/TR	Vers.	Rel	Comment
S2-050591	TR 23.8de v.0.0.2. 3GPP System Architecture Evolution: Report on Technical Options and Conclusions	23.882	0.0.2	Rel-7	Agreed latest draft including changes before the meeting.
S2-050699	Draft skeleton for TR 23.8bc "QoS and policy aspects of 3GPP/WLAN Interworking"	23.8bc	0.0.1	Rel-7	Agreed latest draft including changes before the meeting.
S2-050733	TR 23.867 v0.8.0 (Rapporteur Rainer Liebhart, Siemens AG)	23.867	0.8.0	Rel-7	Agreed latest draft including changes before the meeting.
S2-050787	CSI TS 23.279 v1.0.0	23.279	1.0.0	Rel-7	Noted
S2-050889	Skeleton TR 23.8de for Selective Disabling of UE Capabilities; Report on Technical Options and Conclusions	23.8de	0.0.1	Rel-7	Approved
S2-050923	Updated TR System Architecture Evolution	23.882	0.1.0	Rel-7	Noted for checking and use for change proposals
S2-050936	Draft TR 23.802 after update at SA2#45	23.802	0.5.0	Rel-x	Approved
S2-050939	Updated CSI TS 23.279	23.279	1.1.0	Rel-7	Noted for checking and use for change proposals
S2-050966	Draft Voice Call Continuity between CS and IMS TR	23.8bc	0.0.1	Rel-7	Approved
S2-050967	Draft TR "Selective Disabling" after inclusion of agreed changes at this meeting	23.8cd	0.0.1	Rel-7	Noted for checking and use for change proposals

A.4 Change Requests

The following CRs were dealt with at the meeting:

Spec	CR#	Rev	Rel	Subject	Cat	Vers	Source	Doc-2nd-Level	Status-2nd-Level	WI
23.002	0154	-	Rel-6	Missing MBMS Architecture entities	F	6.7.0	Vodafone	S2-050588	agreed	MBMS
23.002	0155	-	Rel-7	Naming of the IP multimedia functionality of the HSS	F	6.7.0	Orange	S2-050688	Postponed	FBI
23.032	0012	-	Rel-7	Civil Address Form of Location	B	6.0.0	S2	S2-032626	Rejected	LCS3
23.060	0527	-	Rel-6	Activation of secondary PDP context without TFT	F	6.8.0	Siemens	S2-050725	Revised	TEI6
23.060	0527	1	Rel-6	Activation of secondary PDP context without TFT	F	6.8.0	Siemens	S2-050800	agreed	TEI6
23.107	0154	2	Rel-6	RAB Allocation/Retention Priority	F	6.2.0	Siemens	S2-050727	agreed	TEI6
23.107	0156	-	Rel-6	Addition of GERAN to the scope section	F	6.2.0	Siemens	S2-050726	revised	TEI6
23.107	0156	1	Rel-6	Addition of GERAN to the scope section	F	6.2.0	Siemens	S2-050911	agreed	TEI6
23.125	0126	-	Rel-6	TPF behaviour in case of no charging rules for a bearer	F	6.4.0	Siemens	S2-050728	Revised	CH-FBC
23.125	0126	1	Rel-6	TPF behaviour in case of no charging rules for a bearer	F	6.4.0	Siemens	S2-050839	Revised	CH-FBC
23.125	0126	2	Rel-6	TPF behaviour in case of no charging rules for a bearer	F	6.4.0	Siemens	S2-050930	agreed	CH-FBC
23.125	0127	-	Rel-6	FBC Terminology amendments	F	6.4.0	Ericsson	S2-050753	Revised	CH-FBC
23.125	0127	1	Rel-6	FBC Terminology amendments	F	6.4.0	Ericsson	S2-050840	e-mail approval	CH-FBC
23.125	0128	-	Rel-6	Alignment of Re-authorisation triggers	F	6.4.0	Vodafone	S2-050594	Revised	CH-FBC
23.125	0128	1	Rel-6	Alignment of Re-authorisation triggers	F	6.4.0	Vodafone	S2-050838	agreed	CH-FBC
23.141	0071	1	Rel-6	Correction of description of PNA indirect control of Presence Information flow	F	6.7.0	Lucent	S2-050667	Revised	PRESNC
23.141	0071	2	Rel-6	Correction of description of PNA indirect control of Presence Information flow	F	6.7.0	Lucent	S2-050799	agreed	PRESNC
23.228	0477	2	Rel-7	Forward HSS name	B	6.9.0	Ericsson	S2-050669	Postponed	TEI7
23.228	0483	-	Rel-6	Alignment of Session-based Messaging flows with stage 3	F	6.9.0	RIM	S2-050634	Revised	IMS2
23.228	0483	1	Rel-6	Alignment of Session-based Messaging flows with stage 3	F	6.9.0	RIM	S2-050918	agreed	IMS2
23.228	0484	-	Rel-5	GPRS procedure for P-CSCF discovery	F	5.13.0	Ericsson	S2-050700	withdrawn	IMS
23.228	0485	-	Rel-6	GPRS procedure for P-CSCF discovery	A	6.9.0	Ericsson	S2-050701	rejected	IMS2
23.228	0486	-	Rel-6	Correction of the information flow for session based messaging with intermediate node	F	6.9.0	Ericsson	S2-050706	rejected	IMS2
23.228	0487	-	Rel-6	Clarification to the S-S procedures	F	6.9.0	Huawei	S2-050616	withdrawn	IMS2
23.228	0488	-	Rel-6	Clarification to the usage of ENUM DNS translation function	F	6.9.0	Huawei	S2-050618	rejected	IMS2
23.228	0489	-	Rel-6	Clarification to the usage of E.164 format Public User Identities in the IMS network	F	6.9.0	Huawei	S2-050619	rejected	IMS2
23.228	0490	-	Rel-6	On AS forking	F	6.9.0	Siemens	S2-050739	Revised	IMS2
23.228	0490	1	Rel-6	On AS forking	F	6.9.0	Siemens	S2-050919	agreed	IMS2
23.234	0122	-	Rel-6	Correction to Wn Reference Point	F	6.4.0	Lucent Technologies	S2-050774	Revised	WLAN
23.234	0122	1	Rel-6	Correction to Wn Reference Point	F	6.4.0	Lucent Technologies	S2-050859	agreed	WLAN
23.234	0123	-	Rel-6	Adding SBLP to Abbreviations list	D	6.4.0	T-Mobile	S2-050795	Revised	WLAN
23.236	0017	-	Rel-5	Clarification of IPv4 and IPv6 node addresses in an IuFlex architecture	F	5.3.0	Huawei, China Mobile	S2-050623	Postponed	IU-Flex
23.236	0018	-	Rel-6	Clarification of IPv4 and IPv6 node addresses in an IuFlex architecture	A	6.0.0	Huawei, China Mobile	S2-050622	rejected	IU-Flex

23.246	0142	-	Rel-6	Extension of the use of MBMS support indication from SGSN to UE	F	6.6.0	NEC Technologies	S2-050584	Revised	MBMS
23.246	0142	1	Rel-6	Extension of the use of MBMS support indication from SGSN to UE	F	6.6.0	NEC Technologies	S2-050886	Revised	MBMS
23.246	0142	2	Rel-6	Extension of the use of MBMS support indication from SGSN to UE	F	6.6.0	NEC Technologies	S2-050912	agreed	MBMS
23.246	0143	-	Rel-6	Modifications for MBMS tracing	F	6.6.0	Vodafone	S2-050585	Revised	OAM-TRACE
23.246	0143	1	Rel-6	Modifications for MBMS tracing	F	6.6.0	Vodafone	S2-050887	agreed	OAM-TRACE
23.246	0144	-	Rel-6	Clarification of the TMGI	F	6.6.0	Vodafone	S2-050586	agreed	MBMS
23.246	0145	-	Rel-6	Correction to charging information for MBMS	F	6.6.0	Vodafone	S2-050587	Revised	MBMS
23.246	0145	1	Rel-6	Correction to charging information for MBMS	F	6.6.0	Vodafone	S2-050888	agreed	MBMS
23.246	0146	-	Rel-6	Complement of Inter SGSN Routeing Area Update procedure	F	6.6.0	Alcatel Shanghai Bell	S2-050602	Rejected	MBMS
23.246	0147	-	Rel-6	Corrections to Inter SGSN Routeing Area Update procedure	F	6.6.0	Alcatel Shanghai Bell	S2-050603	Revised	MBMS
23.246	0147	1	Rel-6	Corrections to Inter SGSN Routeing Area Update procedure	F	6.6.0	Alcatel Shanghai Bell	S2-050909	Revised	MBMS
23.246	0147	2	Rel-6	Corrections to Inter SGSN Routeing Area Update procedure	F	6.6.0	Alcatel Shanghai Bell	S2-050913	agreed	MBMS
23.246	0148	-	Rel-6	MBMS Join clarification	F	6.6.0	Ericsson	S2-050714	Revised	TEI6
23.246	0148	1	Rel-6	MBMS Join clarification	F	6.6.0	Ericsson	S2-050910	Revised	TEI6
23.246	0148	2	Rel-6	MBMS Join clarification	F	6.6.0	Ericsson	S2-050914	Revised	TEI6
23.246	0148	3	Rel-6	MBMS Join clarification	F	6.6.0	Ericsson	S2-050961	agreed	TEI6
23.246	0149	-	Rel-6	On session duration	F	6.6.0	Telecom Italia	S2-050906	Postponed	TEI6
23.979	0004	-	Rel-6	Correction of OMA PoC references	F	6.1.0	RIM	S2-050635	Revised	POC
23.979	0004	1	Rel-6	Correction of OMA PoC references	F	6.1.0	RIM	S2-050892	agreed	POC

17 agreed CRs, 3 CRs Postponed, 1 CR for e-mail approval.

Annex B: Status of Email Approval following meeting

The following documents were put for e-mail discussion and approval after the meeting:

TD number	Title	Source	Agenda	Document for	Status / Comment
S2-050840	FBC Terminology amendments	Ericsson	8.1	[CR]	FOR E_MAIL APPROVAL
S2-050842	Proposed Requirements	Ericsson	8.1	[P-CR]	FOR E_MAIL APPROVAL
S2-050843	Charging and policy control requirements	Ericsson	8.1	[P-CR]	FOR E_MAIL APPROVAL
S2-050850	PCC: QoS enforcement over the Gx+ interface	Nortel	8.1	[P-CR]	FOR E_MAIL APPROVAL
S2-050851	PCC: Gq/Rx reference point and protocol	Nortel	8.1	[P-CR]	FOR E_MAIL APPROVAL
S2-050853	Criteria for binding	Ericsson	8.1	[P-CR]	FOR E_MAIL APPROVAL
S2-050854	PCC: Limitations of the Authorization Token and TFT binding mechanisms	Nortel	8.1	[P-CR]	FOR E_MAIL APPROVAL
S2-050965	Definition and description of operator control	China Mobile	7.7	[P-CR]	FOR E_MAIL APPROVAL

Annex C: List of meeting documents

TD number	Title	Source	Agenda	Document for	Status / Comment
S2-050528	Proposed meeting agenda for SA2#45	SA WG2 Chairman	2	AGENDA	Revised in S2-050642
S2-050529	Draft minutes of S2#44	MCC	3	REPORT	Revised in S2-050955
S2-050530	Service Continuity – Scope	Motorola, Cingular, SBC, LG Electronics, Nortel, Lucent	7.8	DISCUSSION	Revised in S2-050895
S2-050531	Service Continuity – Basic Assumption	Motorola, Cingular, SBC, LG Electronics, Lucent	7.8	DISCUSSION	Revised in S2-05894
S2-050532	Service Continuity – Overall Requirements	Motorola, Cingular, SBC, LG Electronics, Nortel, Lucent	7.8	DISCUSSION	Revised in S2-050896
S2-050533	Service Continuity – Architectural Requirements	Motorola, Cingular, SBC, LG Electronics, Nortel, Lucent	7.8	DISCUSSION	Revised in S2-050898
S2-050534	Service Continuity – Supporting of Supplemental Service	Motorola, SBC, LG Electronics, Nortel, Lucent	7.8	DISCUSSION	Noted
S2-050535	Service Continuity – Scenarios	Motorola, Lucent	7.8	[P-CR]	Approved for inclusion in the draft TR.
S2-050536	Workplan and Worksplit for 3GPP System Evolution	NEC	7.5	DISCUSSION	Revised in S2-050791
S2-050537	Radio Capability Exchange in CSI	NEC	8.3	DISCUSSION	Noted
S2-050538	Alignment between stage 1 and stage 2	NEC	8.3	DISCUSSION	Noted
S2-050539	Proposed solution for service continuity	NEC	7.8	[P-CR]	TD S2 050898 revised TD S2 050924 to allow short disruptions. Manual Selection was agreed in principle to be included in the requirements section of the draft TR.
S2-050540	Calendar of 3GPP meetings for 2005 / 2006	MCC	11.1	INFO	Noted
S2-050541	Liaison (from TISPAN WG5) on mapping between ITU-T and 3GPP QoS Classes and Traffic Descriptors	TISPAN WG5: 05TD237r1	4	LS IN	Noted
S2-050542	Liaison (from ITU-T SG12 on QoS Interworking	ITU-T SG12: COM 12 - LS 8	4	LS IN	This was noted and interested companies were asked to contribute to SA WG2 for any work to be done on this.
S2-050543	Liaison (from ITU-T SG12: Additional information on "Mapping between ITU-T and 3GPP QoS Classes and Traffic Descriptors"	ITU-T SG12: COM 12 - LS 12	4	LS IN	This was noted and a revision of Y.1541 was provided in TD S2 050544.
S2-050544	Revision of Recommendation Y.1541, "Network Performance Objectives for IP-based Services"	ITU-T SG12: COM 12 - LS 14	4	LS IN	This was postponed to the next SA WG2 meeting and Members were asked to review Y.1541 and contribute any comments to the next meeting.
S2-050545	Response to 3GPP Reply on Mapping between ITU-T and 3GPP QoS Classes and Traffic Descriptors	ITU-T SG12: COM 12 - LS 17	4	LS IN	Noted.
S2-050546	Reply LS (from GERAN WG2) on MBMS Session Repetition	GERAN WG2: G2-050098	4	LS IN	Noted
S2-050547	Reply LS (from GERAN WG2) on MBMS Session Duration IE	GERAN WG2: G2-050163	6.6	LS IN	Response LS in S2-050905
S2-050548	Reply LS (from TSG GERAN) on MBMS Information Element coding (S2-043862)	TSG GERAN: GP-050273	6.6	LS IN	Noted
S2-050549	Reply LS (from TSG GERAN) on bit rate/delay requirements in the GERAN for an MBMS session	TSG GERAN: GP-050374	6.6	LS IN	Noted
S2-050550	LS (from GSMA) on presence and legal values of the Charging Characteristics IE in GTP	GSMA IREG PACKET	4	LS IN	Noted
S2-050551	Reply LS from CN WG1 (to R2-050272) on AS-NAS interaction for MBMS	CN WG1: N1-050206	4	LS IN	Response LS provided in TD S2 050882
S2-050552	Reply LS from CN WG1 (to R3-041648) on MBMS Information Elements over Iu interface	CN WG1: N1-050271	4	LS IN	Noted
S2-050553	LS (from CN WG1) on 3rd party registration and shared public user identities	CN WG1: N1-050272	4	LS IN	Response LS provided in TD S2 050916

TD number	Title	Source	Agenda	Document for	Status / Comment
S2-050554	LS (from CN WG1) on PS handover and Robust Header Compression (RoHC) Context Relocation	CN WG1: N1-050276	4	LS IN	Noted
S2-050555	Reply LS (from CN WG1) on Application Charging ID	CN WG1: N1-050371	4	LS IN	Noted
S2-050556	LS (from CN WG1) on transport of HSS address	CN WG1: N1-050383	4	LS IN	Noted
S2-050557	Reply LS (from CN WG1) on the PS Handover Work (G2-0402911)	CN WG1: N1-050406	4	LS IN	Noted
S2-050558	Reply LS from CN WG1 (to R2-042734 and S2-050488) on NAS signalling load at MBMS Session Start/Stop	CN WG1: N1-050407	4	LS IN	Noted
S2-050559	LS (from CN WG1) on service based inter-system hand over	CN WG1: N1-050410	6	LS IN	Response LS in SP-050798
S2-050560	Reply LS (from CN WG1) on LS on protocol aspects for CSI	CN WG1: N1-050415	8.3	LS IN	Noted
S2-050561	Reply LS (from CN WG3) on removal of Ry reference point	CN WG3: N3-050193	4	LS IN	Noted
S2-050562	Reply LS (from CN WG4) on Impact of Shared User Identities on the Sh Interface	CN WG4: N4-050479	6.1	LS IN	Noted
S2-050563	LS (from CN WG4) on Mandating functionality in WLAN ANs	CN WG4: N4-050450	6.5	LS IN	Response LS to CT WG4 in S2-050858
S2-050564	LS from CN WG4: Addition to WLAN Stage 2 Ruling Wn Out of Scope for 3GPP	CN WG4: N4-050478	6.5	LS IN	CR provided in S2-050774
S2-050565	LS from OMA LOC WG: Response to 3GPP TSG SA WG2 on support for velocity information in the OMA LOC protocols	OMA LOC WG: OMA-LS_0012	7.8	LS IN	Response LS to OMA LOC in S2-050908
S2-050566	Reply (from RAN WG2) to LS on Session Repetition	RAN WG2: R2-050641	4	LS IN	Noted
S2-050567	Reply (from RAN WG2) to LS on NAS signalling load at MBMS Session Start/Stop	RAN WG2: R2-050650	6.6	LS IN	Noted
S2-050568	LS (from RAN WG3) on completion of network initiated SCUDIF support	RAN WG3: R3-050243	4	LS IN	Noted
S2-050569	LS from RAN WG3: Number Of Idle Mode UEs	RAN WG3: R3-050325	4	LS IN	Noted
S2-050570	Response LS (from RAN WG3) on MBMS Common IE encoding	RAN WG3: R3-050343	4	LS IN	Noted
S2-050571	LS from SA WG3: LS on protection of Rx and Gx interfaces	SA WG3: S3-050112	6.7	LS IN	Noted
S2-050572	Reply LS (from SA WG3) on Reception Acknowledgement for MBMS	SA WG3: S3-050126	6.6	LS IN	Noted
S2-050573	Reply LS (from SA WG3) to 'Status of OMA Mobile Broadcast Services'	SA WG3: S3-050171	4	LS IN	Noted
S2-050574	Reply LS (from SA WG3) on Control of simultaneous accesses for WLAN 3GPP IP access	SA WG3: S3-050179	4	LS IN	Response LS in S2-050860
S2-050575	Reply (from SA WG3) to Liaison Statement on MBMS User Service architecture	SA WG3: S3-050182	6.6	LS IN	Noted and CRs were expected at the next meeting to align with SA WG3 and SA WG4 specifications
S2-050576	Reply LS (from SA WG4) on Reception Acknowledgement for MBMS	SA WG4: S4-050128	4	LS IN	Noted
S2-050577	Liaison statement (from SA WG4) on MBMS User Service finalization	SA WG4: S4-050141	6.6	LS IN	Response LS in S2-050883
S2-050578	Reply LS (from SA WG4) on Session Repetition	SA WG4: S4-050197	6.6	LS IN	Noted
S2-050579	Reply LS (from SA WG4) on MBMS Session Repetition	SA WG4: S4-050198	6.6	LS IN	Response in S2-050884
S2-050580	Reply to LS (from SA WG4) on AMR multi-rate operation of VoIMS	SA WG4: S4-050216	6	LS IN	Noted. Members asked to study this topic.
S2-050581	Reply (from SA WG4) to Liaison Statement on Status of OMA Mobile Broadcast Services	SA WG4: S4-050237	4	LS IN	Noted
S2-050582	Liaison Statement (from SA WG4) on stream bundling for MBMS	SA WG4: S4-050245	4	LS IN	Noted
S2-050583	Response LS (from SA WG5) on Impact of Shared Public User Identities on the Sh Interface	SA WG5: S5-054174	4	LS IN	Noted
S2-050584	Proposed CR 0142 to 23.246: Extension of the use of MBMS support indication from SGSN to UE	NEC Technologies	6.6	[CR]	Revised in S2-050886

TD number	Title	Source	Agenda	Document for	Status / Comment
S2-050585	Modifications for MBMS tracing	Vodafone	6.6	[CR]	Revised in S2-050887
S2-050586	Clarification of the TMGI	Vodafone	6.6	CR	Approved
S2-050587	Correction to charging information for MBMS	Vodafone	6.6	[CR]	Revised in S2-050888
S2-050588	Missing MBMS Architecture entities	Vodafone	6.6	CR	Approved
S2-050589	Skeleton TR 23.8de for Selective Disabling of UE Capabilities; Report on Technical Options and Conclusions	Vodafone	7.9	[TR]	Revised in S2-050889
S2-050590	Selective Disabling of UE Capabilities – (U)SIM File Based Architecture	Vodafone	7.9	[P-CR]	To be included in draft TR. Contributions encouraged at next meeting to update and/or propose other solutions
S2-050591	TR 23.8de v.0.0.2. 3GPP System Architecture Evolution: Report on Technical Options and Conclusions	Vodafone	7.5	TR	Agreed latest draft including changes before the meeting.
S2-050592	Baseline architecture for the System Architecture Study	Vodafone	7.5	[P-CR]	Noted
S2-050593	Requirements on the System Architecture Study	Vodafone	7.5	[P-CR]	Noted To be used in conjunction with General Architecture in S2-050856
S2-050594	Alignment of Re-authorisation triggers	Vodafone	6.7	[CR]	Revised in S2-050838
S2-050595	Report from Iu-flex conference call 22-02-2005	Vodafone	3	REPORT	Noted
S2-050596	Report from Iu-flex conference call 18-03-2005	Vodafone	3	REPORT	Noted
S2-050597	Private Network access from W-LAN	NEC	7.6	DISCUSSION	Noted and NEC were asked to discuss this with operators and re-submit it if agreement can be reached.
S2-050598	LS on Private Network access from W-LAN	NEC	7.6	[LS OUT]	Noted - no response until S2-050597 and S2-050599 are agreed
S2-050599	Proposed W-LAN WI updates with Private Network access from W-LAN	NEC	7.6	[WID]	Noted and NEC were asked to discuss this with operators and re-submit it if agreement can be reached.
S2-050600	Introduction of Moving networks	NEC	7.5	DISCUSSION	Noted To be used in conjunction with General Architecture in S2-050856
S2-050601	Introduction of Personal Area Networks	NEC	7.5	DISCUSSION	Noted To be used in conjunction with General Architecture in S2-050856
S2-050602	Proposed CR to 23.246 on Complement of Inter SGSN Routeing Area Update procedure	Alcatel-Shanghai Bell Co., Ltd.	6.6	[CR]	Noted
S2-050603	Proposed CR to 23.246 on corrections to inter SGSN routeing area update procedure	Alcatel-Shanghai Bell Co., Ltd.	6.6	[CR]	Revised in S2-050909
S2-050604	Proposed CR to : Civil Address Form of Location	Lucent Technologies	7.8	[CR]	Noted
S2-050605	Location for IMS Emergency Calls	Lucent Technologies	7.4	[P-CR]	Noted and off-line discussions were invited on these issues.
S2-050606	Location for I-WLAN	Lucent Technologies	7.6	DISCUSSION	This document was noted in this meeting and if there are alternative proposals they should be contributed to the next meeting of SA WG2.
S2-050607	Proposal on Architecture Baseline	Fujitsu	7.5	[P-CR]	Noted
S2-050608	Architectural Requirement on Network Selection	Fujitsu	7.5	[P-CR]	Noted To be used in conjunction with General Architecture in S2-050856
S2-050609	Architectural Requirement on Quality of Service	Fujitsu	7.5	[P-CR]	Noted To be used in conjunction with General Architecture in S2-050856
S2-050610	Architectural Requirement on Mobility Management	Fujitsu	7.5	[P-CR]	Noted To be used in conjunction with General Architecture in S2-050856
S2-050611	BCF discovery in off-path model for TR23.802	Huawei, China Mobile	8.2	DISCUSSION	Revised in S2-050863
S2-050612	Security aspects of the off-path model for TR23.802	Huawei, China Mobile	8.2	DISCUSSION	Revised in S2-050870
S2-050613	Cleanup of references	Huawei	8.2	DISCUSSION	Postponed until next meeting.
S2-050614	Enhanced Inter-domain Routing Control for handover between CS and IMS	Huawei	7.7	INFO / DISCUSSION	Not handled due to lack of time in this meeting
S2-050615	Voice Call Handover Mechanism from IMS to CS	Huawei	7.7	INFO / DISCUSSION	Not handled due to lack of time in this meeting
S2-050616		Huawei	6.1	[CR]	
S2-050617	Routing of calls originated from CS network to IMS network	Huawei	6.1	DISCUSSION	Noted. Authors to draft Rel-7 WID if they wish to pursue this in Rel-7 or use TEI for Rel-7 if appropriate.
S2-050618	Clarification to the usage of ENUM DNS translation function	Huawei	6.1	[CR]	Noted

TD number	Title	Source	Agenda	Document for	Status / Comment
S2-050619	Clarification to the usage of E.164 format Public User Identities in the IMS network	Huawei	6.1	[CR]	Noted
S2-050620	Adding some service requirements in the CSI	Huawei	8.3	DISCUSSION	Noted
S2-050621	Improvement to the capability exchange	Huawei	8.3	DISCUSSION	Noted
S2-050622	Clarification of IPv4 and IPv6 node addresses in an IuFlex architecture	Huawei, China Mobile	6	[CR]	Noted
S2-050623	Clarification of IPv4 and IPv6 node addresses in an IuFlex architecture	Huawei, China Mobile	5	[CR]	Postponed to next meeting. Noted.
S2-050624	Processing of MCEF	Huawei	7.2	[P-CR]	revised in S2-050902
S2-050625	Handling of failure SMS-MT delivery	Huawei	7.2	[P-CR]	revised in S2-050903
S2-050626	General corrections	Huawei	7.2	[P-CR]	revised in S2-050904
S2-050627	Service Authentication in IP-Message-GW	Huawei	7.2	DISCUSSION	Noted. Off-line discussion invited.
S2-050628	Corrections to adding CS call to ongoing IMS session	Motorola	8.3	DISCUSSION	Noted
S2-050629	Adding scenario: Simultaneous CS and IMS setup	Motorola	8.3	DISCUSSION	Revised in S2-050809
S2-050630		Motorola	8.3	WITHDRAWN	
S2-050631	E2E QoS session report	E2E Session Chairman	8.2	REPORT	Approved
S2-050632	E2E QoS session agenda	E2E Session Chairman	8.2	AGENDA	Approved
S2-050633	TR 23.802 v0.4.0, Architectural Enhancements for E2E QoS	Rapporteur	8.2	TR	Approved
S2-050634	Alignment of Session-based Messaging flows with stage 3	RIM	6.1	[CR]	Revised in S2-050918
S2-050635	Correction of OMA PoC references	RIM	6.2	[CR]	Revised in S2-050892
S2-050636	Preview of upcoming contribution on SIP as Mp interface alternative	Convedia	6.1	DISCUSSION	Noted
S2-050637	Introduction to All-IP Network (AIPN) Feasibility Study in TR 22.978 (for joint session)	SA1 AIPN Rapporteur (Chris Sachno, NTT DoCoMo Inc.)	7.5	DISCUSSION	Presented, doscussed and noted.
S2-050638	Future SA1 – SA2 cooperation on 3GPP system evolution related work (for joint session)	SA1 AIPN Rapporteur (Chris Sachno, NTT DoCoMo Inc.)	7.5	DISCUSSION	Discussed in Joint session
S2-050639	Proposed Agenda for SA WG1 – SA WG2 Joint Session on AIPN and 3GPP System Architecture Evolution during SA1#28/SA2#45	SA1 AIPN Rapporteur (Chris Sachno, NTT DoCoMo Inc.)	7.5	AGENDA	Approved
S2-050640	WID on MBMS Enhancements	China Mobile	9.1	[WID]	Revised in S2-050793
S2-050641	Definition and description of operator control	China Mobile	7.7	DISCUSSION	revised in S2-050925
S2-050642	Proposed meeting agenda for SA2#45	SA WG2 Chairman	2	AGENDA	Revised in S2-050789 to adjust the schedule for the parallel sessions.
S2-050643	Comparison of proposed Iu/A/Gb Flex Load Balancing solutions	Lucent Technologies	6	DISCUSSION	Noted. Further conference call arranged 19 April
S2-050644	Conclusion of TR 23.804	Nokia	7.2	DISCUSSION	Noted. New version expected at next meeting.
S2-050645	IMS Emergency Sessions: Policy and Charging Control interaction	Nokia	7.4	[P-CR]	Approved for inclusion in the draft TR.
S2-050646	IMS Emergency Sessions: Setting of Follow-on-Request Pending parameter	Nokia	7.4	DISCUSSION	Postponed for GPRS-related discussions at next meeting
S2-050647	IMS Emergency Sessions: PDP context modification, deactivation and preservation	Nokia	7.4	DISCUSSION	Postponed for GPRS-related discussions at next meeting
S2-050648	IMS Emergency Sessions: UICC-less procedures	Nokia	7.4	DISCUSSION	Postponed for GPRS-related discussions at next meeting
S2-050649	Global terminal mobility for 3GPP System Architecture Evolution	Nokia, T-Mobile	7.5	DISCUSSION	Noted as a basis for further discussion.
S2-050650	System evolution workplan and milestones	Nokia	7.5	DISCUSSION	This was covered in discussions of TD S2 050791 and was noted.
S2-050651	Alternative architecture for Selective Disabling of UE Capabilities	Nokia	7.9	DISCUSSION	Revised in S2-050890
S2-050652	TR 23.803 v0.3.2	Rapporteur (Balazs Bertenyi)	8.1	TR	Noted.
S2-050653	Go functionality provided by Gx+	Nokia	8.1	[P-CR]	Revised to S2-050844
S2-050654	Sp reference point	Nokia	8.1	[P-CR]	Revised to S2-050845
S2-050655	Subscription Profile Repository	Nokia	8.1	DISCUSSION	Revised to S2-050848

TD number	Title	Source	Agenda	Document for	Status / Comment
S2-050656	Signalling Flows for Bearer Service Establishment, Modification and Termination	Nokia	8.1	DISCUSSION	Revised to S2-050849
S2-050657	High-level functionality of the evolved 3GPP System Architecture	Panasonic	7.5	DISCUSSION	Noted To be used in conjunction with General Architecture in S2-050856
S2-050658	Requirements on the Architecture – General	DoCoMo	7.5	DISCUSSION / APPROVAL	Noted To be used in conjunction with General Architecture in S2-050856
S2-050659	Requirements on the Architecture – Mobility Management	DoCoMo	7.5	DISCUSSION / APPROVAL	Noted To be used in conjunction with General Architecture in S2-050856
S2-050660	Requirements on the Architecture – QoS Management	DoCoMo	7.5	DISCUSSION / APPROVAL	Noted To be used in conjunction with General Architecture in S2-050856
S2-050661	Requirements on the Architecture – Security	DoCoMo, NEC	7.5	DISCUSSION / APPROVAL	Noted To be used in conjunction with General Architecture in S2-050856
S2-050662	Requirements on the Architecture – Network Performance	DoCoMo	7.5	DISCUSSION / APPROVAL	Revised in S2-050792
S2-050663	Requirements on the Architecture – Optimal routing	DoCoMo	7.5	DISCUSSION / APPROVAL	Noted To be used in conjunction with General Architecture in S2-050856
S2-050664	Comment on the feedback to SA1 AIPN work	DoCoMo	7.5	DISCUSSION	Presented, discussed and Noted.
S2-050665	Draft Voice Call Continuity between CS and IMS TR	Lucent Technologies	7.7	[TR]	Revised in S2-050893
S2-050666	Proposed updates to Skeleton VCCCI TR	Lucent Technologies	7.7	APPROVAL	Noted
S2-050667	Correction of description of PNA indirect control of Presence Information flow	Lucent Technologies	6	[CR]	revised in S2-050799
S2-050668	Support of Service Identifiers	Ericsson	7	DISCUSSION	Noted. More discussion to be held.
S2-050669	Forward HSS name	Ericsson	7	[CR]	Postponed in order that the Rel 7 of this TS is not created unnecessarily early.
S2-050670	Service Continuity - Network Domain Selection	Ericsson	7.7	DISCUSSION	This was not handled due to lack of time
S2-050671	Discussion on the support of "Telephony" over IP over a cellular access	Ericsson	7	DISCUSSION	Noted. Discussion invited off-line and contribution to next meeting
S2-050672	Identification of, and procedures related to, CSCF capability change	Ericsson	7	DISCUSSION	Noted
S2-050673	Directions for 3GPP System Architecture Evolution	Nortel	7.5	DISCUSSION / APPROVAL	This was not handled due to lack of time
S2-050674	Inter-system Mobility Management	Nortel	7.5	DISCUSSION / APPROVAL	Noted. Similar contributions invited.
S2-050675	Architectural Alternative for CS-IMS Voice Call Continuity Based on CS Control	Nortel	7.7	DISCUSSION / APPROVAL	This was not handled due to lack of time
S2-050676	Architectural Alternative for CS-IMS Voice Call Continuity Based on IMS Control	Nortel	7.7	DISCUSSION / APPROVAL	This was not handled due to lack of time
S2-050677	RAN centric load re-distribution with A/Gb/Iu Flexibility	Nortel	6	DISCUSSION	Noted
S2-050678	RAN centric load re-distribution with SRNS relocation	Nortel	6	DISCUSSION	Noted
S2-050679	Discussion on UEP study for VoIMS	Nortel	9.1	DISCUSSION	Noted. Discussion invited off-line and contribution to next meeting
S2-050680		Ericsson	8.3	DISCUSSION	
S2-050681	Additions of IMS service to a CSI call	Ericsson	8.3	DISCUSSION	Revised in S2-050815
S2-050682	Support for multiple IMS registrations by same user	Ericsson	8.3	DISCUSSION	Noted
S2-050683	Adding the interface of Gu to PCCN	China Mobile	8.1	DISCUSSION	Revised in S2-050836
S2-050684		ZTE Corporation	7.7	DISCUSSION	
S2-050685	Provide an Entity for Fixed Broadband Access to IMS	ZTE Corporation	7.3	DISCUSSION	Noted. TISPAN work to be reviewed before adding such architecture to SA WG2 TSs.
S2-050686	Support PSTN/ISDN emulation/simulation for IMS	ZTE Corporation	7.3	DISCUSSION	Noted. TISPAN work to be reviewed before adding such architecture to SA WG2 TSs.
S2-050687	Naming of the IP multimedia functionality of the HSS	Orange	7.3	DISCUSSION	Noted. Discussions at future meetings.
S2-050688	Naming of the IP multimedia functionality of the HSS	Orange	7.3	[CR]	Noted / Postponed
S2-050689		ZTE Corporation	8.2	DISCUSSION	
S2-050690	Application of MPLS in on-path QOS signalling	ZTE Corporation	8.2	DISCUSSION	Revised in S2-050861
S2-050691	Profile in the PDF and BCF for the path choosing	ZTE Corporation	8.2	DISCUSSION	Revised in S2-050784
S2-050692	Complements on agreement between the UMTS and Backbone IP network	ZTE Corporation	8.2	DISCUSSION	Revised in S2-050865

TD number	Title	Source	Agenda	Document for	Status / Comment
S2-050693	Use cases of CSI	Samsung	8.3	DISCUSSION	Carry over by drafting session
S2-050694	Routing method for alternative C	Samsung	8.3	DISCUSSION	Carry over by drafting session
S2-050695	Clarification on alternative D	Samsung	8.3	DISCUSSION	Carry over by drafting session
S2-050696	Correction for unimplemented text proposals of TR23.899	Samsung	8.3	DISCUSSION	Carry over by drafting session
S2-050697		Samsung	8.3	DISCUSSION	
S2-050698	Clarification for information flow	Samsung	8.3	DISCUSSION	Combined with S2-050814
S2-050699	Draft skeleton for TR 23.8bc “QoS and policy aspects of 3GPP/WLAN Interworking”	Samsung	7.6	TR	Agreed latest draft including changes before the meeting.
S2-050700	GPRS procedure for P-CSCF discovery	Ericsson	5	[CR]	CR was revised in TD S2 050796 and included in the LS in TD S2 050797
S2-050701	GPRS procedure for P-CSCF discovery	Ericsson	6.1	[CR]	Noted
S2-050702	IMS-based messaging and SMSIP	Ericsson	7.2	[P-CR]	Agreed to include in the draft TR
S2-050703	Decision on method for forwarding messages	Ericsson	7.2	[P-CR]	Noted. Ericsson to update for next meeting.
S2-050704	IP based UE	Ericsson	7.2	[P-CR]	Revised in S2-050926
S2-050705	CSI UE capability exchange	Ericsson	8.3	[P-CR]	Revised in S2-050814
S2-050706	Correction of the information flow for session based messaging with intermediate node	Ericsson	6.1	[CR]	Noted
S2-050707		Ericsson	8.3	DISCUSSION / APPROVAL	
S2-050708	Re-use of existing IP-CAN’s QoS mechanisms	Ericsson	8.2	DISCUSSION / APPROVAL	Postponed until next meeting.
S2-050709	Clarification of characteristics of feedback based solution	Ericsson	8.2	DISCUSSION	Revised in S2-050867
S2-050710	Procedures for the on-path model	Ericsson	8.2	DISCUSSION	Revised in S2-050868
S2-050711	E2E QoS for non-IMS applications	Ericsson	8.2	DISCUSSION	Revised in S2-050871
S2-050712	Interconnection Networks for IMS	Ericsson	8.2	DISCUSSION	Noted. Revised draft LS in S2-050866.
S2-050713		Ericsson	8.2	DISCUSSION	
S2-050714	MBMS Join clarification	Ericsson	6.6	[CR]	Revised in S2-050910
S2-050715	CN Centric Load Re-distribution with A/Gb/Iu-flex	Ericsson	6	DISCUSSION	Noted
S2-050716	Core Network nodes overload prevention	LG Electronics	6.6	DISCUSSION	Revised in S2-050897
S2-050717	Correction of Interaction of CSI with Call Waiting and Call Hold	T-Mobile	8.3	[P-CR]	Approved for inclusion in the draft TS
S2-050718	QoS enhancement for 3GPP-WLAN Interworking	T-Mobile	7.6	DISCUSSION	This contrbution was revised to include comments off-line in TD S2 050881
S2-050719	Discussion on CSI Service	Siemens	8.3	DISCUSSION	Noted
S2-050720	Clarifications for the scope of the CSI TS	Siemens	8.3	[P-CR]	Revised in S2-050808
S2-050721	Clarifications for the conclusions of the CSI TR	Siemens	8.3	[P-CR]	Carry over by drafting session
S2-050722	Generic 3GPP Packet Domain Architecture Description	Siemens	7.5	[P-CR]	Covered by other discussions. Noted.
S2-050723	Discussion on architectural requirements	Siemens	7.5	[P-CR]	Approved to be included in an Annex to the draft CR "Open Issues".
S2-050724	Discussion on Mobility Schemes	Siemens	7.5	[P-CR]	Noted To be used in conjunction with General Architecture in S2-050856
S2-050725	Activation of secondary PDP context without TFT	Siemens	6	[CR]	Revised in S2-050800.
S2-050726	Addition of GERAN to the scope section	Siemens	6	[CR]	Revised in S2-050911.
S2-050727	RAB Allocation/Retention Priority	Siemens	6	CR	Approved
S2-050728	TPF behaviour in case of no charging rules for a bearer	Siemens	6.7	[CR]	Revised in S2-050839
S2-050729	CSI Service Logic	Siemens, Ericsson	8.3	[P-CR]	Revised in S2-050811
S2-050730	Basic Assumptions and Questions	Siemens	7.7	DECISION	Parts included in S2-050894
S2-050731	Introduction Of Mobility Management Application Server: Part 1 Architecture and Roaming	Siemens	7.7	DISCUSSION	This was not handled in the meeting due to lack of time.
S2-050732	Introduction Of Mobility Management Application Server: Part 2 Handover Scenarios	Siemens	7.7	DISCUSSION	This was not handled in the meeting due to lack of time.
S2-050733	TR 23.867 v0.8.0 (Rapporteur Rainer Liebhart, Siemens AG)	Siemens	7.4	TR	Agreed latest draft including changes before the meeting.
S2-050734	Security considerations	Siemens	7.4	[P-CR]	Revised in S2-050899
S2-050735	IMS Registration in the context of Emergency Calls	Siemens	7.4	[P-CR]	Revised in S2-050900
S2-050736	Clarification on GPRS Procedures	Siemens	7.4	DECISION	Postponed for GPRS-related discussions at next meeting

TD number	Title	Source	Agenda	Document for	Status / Comment
S2-050737	Introduction of PSAP as destination for emergency calls	Siemens	7.4	[P-CR]	Approved for inclusion in the draft TR.
S2-050738	Service-based Charging in the context of CSI	Siemens, Ericsson	8.3	[P-CR]	Revised in S2-050810
S2-050739	On AS forking	Siemens	6.1	[CR]	Revised in S2-050919
S2-050740	Alignment of terminology in TR 23.804 and TS 23.040	Siemens	7.2	[P-CR]	Approved for inclusion in the draft TR.
S2-050741	Support of OTA Service	Siemens	7.2	[P-CR]	Revised in S2-050927
S2-050742	Support of interworking between networks	Siemens	7.2	[P-CR]	Revised in S2-050928
S2-050743	System Architecture Evolution – Key Requirements	Nokia	7.5	DISCUSSION	Noted To be used in conjunction with General Architecture in S2-050856
S2-050744		Nokia	7.8	DISCUSSION	
S2-050745	Draft LS to SA1 on Service Requirements for VCCCI	Lucent Technologies	7.8	[LS OUT]	This was not handled in the meeting due to lack of time.
S2-050746	General amendments	Ericsson	8.1	[P-CR]	Revised in S2-050847
S2-050747	Proposed requirements	Ericsson	8.1	[P-CR]	Revised in S2-050842
S2-050748	Charging and policy control requirements	Ericsson	8.1	[P-CR]	Revised in S2-050843
S2-050749	Criteria for binding	Ericsson	8.1	[P-CR]	Revised in S2-050853
S2-050750	Naming of PCCN	Ericsson	8.1	DISCUSSION / DECISION	Approved. Editor is tasked to make the agreed change of terminology into the next version of the TR.
S2-050751	DCC session handling	Ericsson	6.7	DISCUSSION / DECISION	Noted. To be taken into account when drafting S2-050841.
S2-050752	PCCN addressing from the GW	Ericsson	8.1	DISCUSSION / DECISION	Revised in S2-050852
S2-050753	FBC Terminology amendments	Ericsson	6.7	[CR]	Revised in S2-050840
S2-050754	Architecture Baseline	Ericsson	7.5	DISCUSSION / DECISION	Revised in S2-050915
S2-050755	PCC: Charging correlation	Nortel, Vodafone	8.1	DISCUSSION	Noted. Content to be merged into S2-050842.
S2-050756	PCC: QoS enforcement over the Gx+ interface	Nortel	8.1	DISCUSSION	Revised in S2-050850
S2-050757	PCC: NSAPI based binding	Nortel	8.1	DISCUSSION	Noted
S2-050758	PCC: Gq/Rx reference point and protocol	Nortel	8.1	DISCUSSION	Revised in S2-050851
S2-050759	PCC: Limitations of the Authorization Token and TFT binding mechanisms	Nortel	8.1	DISCUSSION	Revised in S2-050854
S2-050760	E2E QoS: General Requirements	Nortel	8.2	DISCUSSION	Postponed until next meeting.
S2-050761	E2E QoS: Issues of connection models	Nortel	8.2	DISCUSSION	Postponed until next meeting.
S2-050762	E2E QoS: IP networks without QoS signalling	Nortel	8.2	DISCUSSION	Postponed until next meeting.
S2-050763	E2E QoS: Feedback based Call Admission Control	Nortel	8.2	DISCUSSION	Revised in S2-050862
S2-050764	E2E QoS: Feedback based Call Admission Control FAQs	Nortel	8.2	DISCUSSION	Revised in S2-050869
S2-050765	E2E QoS: Session Aware Intermediate Networks	Nortel	8.2	DISCUSSION	Revised in S2-050873
S2-050766	CSI: IMS first Call Flow and Capability Exchange	Nortel	8.3	DISCUSSION	Noted
S2-050767	CSI: TR 23.899 v1.1.0	Nortel	8.3	TR	Carry over by drafting session
S2-050768	LS, Reply to CN1 LS reply on protocol aspects for CSI	Nortel	8.3	[LS OUT]	Revised in S2-050807
S2-050769	The General Requirements for 3GPP System Architecture Evolution	Orange SA	7.5	DISCUSSION	Noted To be used in conjunction with General Architecture in S2-050856
S2-050770	Proposals for the Principles and the Baseline Architecture for 3GPP System Evolution	Orange SA	7.5	DISCUSSION	This was not handled in the meeting due to lack of time (Late document)
S2-050771	Analysis and Comparison of the four End-to-End QoS Connection Models	Orange SA	8.2	DISCUSSION	Postponed until next meeting.
S2-050772	Handover Scenarios for Voice Call Continuity	Lucent Technologies	7.7	DISCUSSION	This was not handled in the meeting due to lack of time (Late document)
S2-050773	Service Continuity – Operator Scenarios	Motorola	7.7	DISCUSSION	Noted
S2-050774	Correction to Wn Reference Point	Lucent Technologies	6.5	[CR]	Revised in S2-050859
S2-050775	Chairman's Notes	SA WG2 Chairman	4	DISCUSSION	Noted as a basis for LS handling

TD number	Title	Source	Agenda	Document for	Status / Comment
S2-050776	Notes of TSG-SA#27	SA WG2 Chairman	3	REPORT	The SA WG2 Chairman proposed that the use of this interface in 23.002 was not appropriate and suggested that it is removed from here because it causes confusion. It was decided to discuss this more off-line and contributions on how to handle this were invited to the next SA WG2 meeting. This report was then noted.
S2-050777	PINT SDP extensions for CSI	Motorola	8.3	DISCUSSION / APPROVAL	Carry over by drafting session
S2-050778	LS from GSMA IREG) to 3GPP on "GSMA IREG Packet Feasibility study on 3GPP Rel-6 WLAN Interworking"	GSMA IREG: IREG Doc 48_082	6.5	LS IN	Members were asked to take these comments into account and contribute to the addressed WGs on these topics. The LS was then noted.
S2-050779	LS (from SA WG5) on Shared Public Identity	SA WG5: S5-052120	4	LS IN	Response LS in S2-050917
S2-050780	Reply LS (from SA WG5) on Gateway Mobile Location Center (GMLC) call records	SA WG5: S5-054281	4	LS IN	Noted
S2-050781	LS (from SA WG5) on Diameter Credit Control (DCC) Session Handling	SA WG5: S5-054287	4	LS IN	Response LS provided in S2-050841
S2-050782	Reply LS (from SA WG5) on Application Charging ID (ACID) for PoC	SA WG5: S5-054289	4	LS IN	Noted
S2-050783	Reply LS (from SA WG5) on tracing information for MBMS services	SA WG5: S5-058269	4	LS IN	noted. It was also noted that there seems to be a lack of Trace specifications for GPRS. Member companies were asked to provide the necessary information to SA WG5.
S2-050784	Profile in the PDF and BCF for the path choosing	ZTE Corporation	8.2	DISCUSSION	Revised in S2-050864
S2-050785	Report of TISPAN Workshop discussions	SA WG2 Chairman	3	REPORT	Noted
S2-050786	CSI Drafting session agenda	CSI Drafting session Chairman	8.3	AGENDA	Approved by drafting session
S2-050787	CSI TS 23.xxx v1.0.0	CSI Drafting session Chairman	8.3	TS	Noted
S2-050788	Draft report of CSI drafting session	Convenor CSI Drafting Session	8.3	REPORT	Approved
S2-050789	Revised Agenda for SA WG2 #45 meeting	SA WG2 Chairman	2	AGENDA	Revised in S2-050885
S2-050790	e-mail approval report	Frank	3	REPORT	Approved
S2-050791	Workplan and Worksplit for 3GPP System Evolution	NEC	7.5	DISCUSSION	Noted as a set of principles that can be used to develop the architecture in an efficient way.
S2-050792	Requirements on the Architecture – Network Performance	DoCoMo	7.5	DISCUSSION / APPROVAL	Noted To be used in conjunction with General Architecture in S2-050856
S2-050793	WID on MBMS Enhancements	China Mobile	9.1	[WID]	Noted. Off-line discussion invited.
S2-050794	Discussion on the support of VoIP in UMTS/HSDPA	Lucent Technologies	7	DISCUSSION	Noted. Interested companies were asked to discuss this off-line and contribute to the next meeting.
S2-050795	Proposed CR to 23.234 - 0123: Adding SBLP to Abbreviations	T-Mobile	7.6	[CR]	Not dealt with (Late document)
S2-050796		Ericsson	5	[CR]	
S2-050797	DRAFT LS on GPRS P-CSCF discovery procedure	SA WG2	5	[LS OUT]	Revised in S2-050940
S2-050798	DRAFT LS reply on service based inter-system hand over	SA WG2	6	[LS OUT]	Revised in S2-050929
S2-050799	Correction of description of PNA indirect control of Presence Information flow	Lucent Technologies	6	CR	Approved
S2-050800	Activation of secondary PDP context without TFT	Siemens	6	CR	Approved
S2-050801	CSI Service Logic	Siemens, Ericsson	8.3	[P-CR]	Not used. Handled under duplication in S2-050811
S2-050802	LS from ETSI TISPAN WG2: Harmonization of SMS/MMS over generic IP access	ETSI TISPAN WG2	4	LS IN	Response LS in S2-050901
S2-050803	Agenda – Joint SA1 and SA2 Combinational Service Meeting Agenda	SA1 CSICS SWG Chairman, SA2 CSI Drafting session Convenor	8.3	AGENDA	Approved
S2-050804	Draft TS 22.279	CSI Drafting session Chairman	8.3	TS	SA WG1 document noted for information

TD number	Title	Source	Agenda	Document for	Status / Comment
S2-050805	Report of Joint CSI meeting	CSI Drafting session Chairman	8.3	REPORT	Not dealt with (Document not available)
S2-050806	Revised WID for Combining CS and IMS services & Capability Detection and Exchange mechanism	CSI Drafting session Chairman	8.3	[WID]	Not dealt with.
S2-050807	DRAFT LS, Reply to CT1 LS reply on protocol aspects for CSI	SA WG2	8.3	[LS OUT]	Revised in S2-050938
S2-050808	Clarifications for the scope of the CSI TS	Siemens	8.3	[P-CR]	Revised in S2-050812
S2-050809	Adding scenario: Simultaneous CS and IMS setup	Motorola	8.3	[P-CR]	Approved for inclusion in the draft TS
S2-050810	Service-based Charging in the context of CSI	Siemens, Ericsson	8.3	[P-CR]	Approved for inclusion in the draft TS
S2-050811	CSI Service Logic	Siemens, Ericsson	8.3	[P-CR]	Approved for inclusion in the draft TS
S2-050812	Clarifications for the scope of the CSI TS	CSI Drafting session Chairman	8.3	[P-CR]	Revised in S2-050816
S2-050813	DRAFT LS on exchange of radio capabilities in CSI	SA WG2	8.3	[LS OUT]	Revised in S2-050937
S2-050814	CSI UE capability exchange	Ericsson	8.3	[P-CR]	Approved for inclusion in the draft TS
S2-050815	Additions of IMS service to a CSI call	Ericsson	8.3	[P-CR]	Approved for inclusion in the draft TS
S2-050816	Clarifications for the scope of the CSI TS	Siemens	8.3	[P-CR]	Approved for inclusion in the draft TS
S2-050817				NOT USED	
S2-050818				NOT USED	
S2-050819				NOT USED	
S2-050820				NOT USED	
S2-050821				NOT USED	
S2-050822				NOT USED	
S2-050823				NOT USED	
S2-050824				NOT USED	
S2-050825				NOT USED	
S2-050826				NOT USED	
S2-050827				NOT USED	
S2-050828				NOT USED	
S2-050829				NOT USED	
S2-050830				NOT USED	
S2-050831				NOT USED	
S2-050832				NOT USED	
S2-050833				NOT USED	
S2-050834				NOT USED	
S2-050835				NOT USED	
S2-050836	Adding the interface of Gu to PCCN	China Mobile	8.3	[P-CR]	Revised in S2-050846
S2-050837	REPORT, PCC and FBC Drafting Session	PCC rapporteur	8.1	REPORT	Approved
S2-050838	Alignment of Re-authorisation triggers	Vodafone	8.1	CR	Approved
S2-050839	TPF behaviour in case of no charging rules for a bearer	Siemens	8.1	[CR]	Revised in S2-050930
S2-050840	FBC Terminology amendments	Ericsson	8.1	[CR]	FOR E_MAIL APPROVAL. Approved 15/04/2005.
S2-050841	DRAFT LS on DCC session handling	SA WG2	8.1	[LS OUT]	Revised in S2-050952
S2-050842	Proposed Requirements	Ericsson	8.1	[P-CR]	FOR E_MAIL APPROVAL. Revised in S2-050969
S2-050843	Charging and policy control requirements	Ericsson	8.1	[P-CR]	FOR E_MAIL APPROVAL. Not approved
S2-050844	Go functionality provided by Gx+	Nokia	8.1	[P-CR]	Approved for inclusion in the draft TR
S2-050845	Sp reference point	Nokia	8.1	[P-CR]	Approved for inclusion in the draft TR
S2-050846	Adding an Editors Note on E2E QoS WI	China Mobile, Ericsson	8.1	[P-CR]	Approved for inclusion in the draft TR
S2-050847	General amendments	Ericsson	8.1	[P-CR]	Approved for inclusion in the draft TR
S2-050848			8.1		
S2-050849			8.1		
S2-050850	PCC: QoS enforcement over the Gx+ interface	Nortel	8.1	[P-CR]	FOR E_MAIL APPROVAL. Approved 15/04/2005.
S2-050851	PCC: Gq/Rx reference point and protocol	Nortel	8.1	[P-CR]	FOR E_MAIL APPROVAL. Approved 15/04/2005.
S2-050852	PCCN addressing from the GW	Ericsson	8.1	[P-CR]	Approved for inclusion in the draft TR
S2-050853	Criteria for binding	Ericsson	8.1	[P-CR]	FOR E_MAIL APPROVAL. Revised in S2-050970
S2-050854	PCC: Limitations of the Authorization Token and TFT binding mechanisms	Nortel	8.1	[P-CR]	FOR E_MAIL APPROVAL. Revised in S2-050971
S2-050855			8.1	NOT USED	
S2-050856	Requirements on the System Architecture Evolution		7.5	[P-CR]	Revised in S2-050921

TD number	Title	Source	Agenda	Document for	Status / Comment
S2-050857			7.5	DISCUSSION	
S2-050858	DRAFT Reply LS on Mandating functionality in WLAN Ans	SA WG2	6.5	[LS OUT]	Revised in S2-050945
S2-050859	Correction to Wn Reference Point	Lucent Technologies	6.5	CR	Approved
S2-050860	DRAFT Reply LS on Control of simultaneous accesses for WLAN 3GPP IP access	SA WG2	4	[LS OUT]	Revised in S2-050941
S2-050861	Application of MPLS in on-path QOS signalling	ZTE Corporation	8.2	[P-CR]	Approved for inclusion in the draft TR
S2-050862	E2E QoS: Feedback based Call Admission Control	Nortel Networks	8.2	[P-CR]	Approved for inclusion in the draft TR
S2-050863	BCF discovery in off-path model for TR 23.802		8.2	[P-CR]	Revised in S2-050932
S2-050864	Profile in the PDF and BCF for the path choosing	ZTE Corporation	8.2	[P-CR]	Revised in S2-050933
S2-050865	Complements on agreement between the UMTS and Backbone IP network	ZTE Corporation	8.2	[P-CR]	Revised in S2-050934
S2-050866	DRAFT LS on Interconnection Models for IMS networks in an End-to-End QoS context	Ericsson	8.2	[LS OUT]	Revised in S2-050872
S2-050867		Ericsson	8.2	WITHDRAWN	
S2-050868	Procedures for the on-path model	Ericsson	8.2	[P-CR]	Revised in S2-050935
S2-050869	E2E QoS: Feedback based Call Admission Control FAQs	Nortel	8.2	[P-CR]	Approved for inclusion in the draft TR
S2-050870	Security aspects of the off-path model for TR 23.802	Huawei, China Mobile	8.2	[P-CR]	Revised in S2-050874
S2-050871	E2E QoS for non-IMS applications	Ericsson	8.2	[P-CR]	Approved for inclusion in the draft TR
S2-050872	DRAFT LS on Interconnection Models for IMS networks in an End-to-End QoS context	SA WG2	8.2	[LS OUT]	Revised in S2-050931
S2-050873	E2E QoS: Session Aware Intermediate Networks	Nortel Networks	8.2	[P-CR]	Approved for inclusion in the draft TR
S2-050874	Security aspects of the off-path model for TR 23.802	Huawei, China Mobile	8.2	[P-CR]	Approved for inclusion in the draft TR
S2-050875			8.2	NOT USED	
S2-050876			8.2	NOT USED	
S2-050877			8.2	NOT USED	
S2-050878			8.2	NOT USED	
S2-050879			8.2	NOT USED	
S2-050880			8.2	NOT USED	
S2-050881	QoS enhancement for 3GPP-WLAN Interworking	T-Mobile, Cingular Wireless, Orange, LG Electronics, Huawei	7.6	[P-CR]	Revised in S2-050963
S2-050882	DRAFT LS on MBMS Bearer Capability use	SA WG2	6.6	[LS OUT]	Revised in S2-050947
S2-050883	DRAFT Reply LS on MBMS User Service finalization from SA4	SA WG2	6.6	[LS OUT]	Revised in S2-050948
S2-050884	DRAFT Reply LS on MBMS Session Repetition from SA4	SA WG2	6.6	[LS OUT]	Revised in S2-050949
S2-050885	Revised Agenda for SA WG2 #45 meeting	SA WG2 Chairman	2	AGENDA	Revised in S2-050907
S2-050886	Proposed CR 0142 to 23.246: Extension of the use of MBMS support indication from SGSN to UE	NEC Technologies	6.6	[CR]	Revised in S2-050912
S2-050887	Modifications for MBMS tracing	Vodafone	6.6	CR	Approved
S2-050888	Correction to charging information for MBMS	Vodafone	6.6	CR	Approved
S2-050889	Skeleton TR 23.8de for Selective Disabling of UE Capabilities; Report on Technical Options and Conclusions	Vodafone	7.9	TR	Approved
S2-050890	Alternative architecture for Selective Disabling of UE Capabilities	Nokia	7.9	DISCUSSION	Approved
S2-050891			7.9	[LS OUT]	WITHDRAWN
S2-050892	Correction of OMA PoC references	RIM	6.2	CR	Approved
S2-050893	Draft Voice Call Continuity between CS and IMS TR	Lucent Technologies	7.7	[TR]	Revised in S2-050966
S2-050894	Service Continuity – Basic Assumption	Motorola, Cingular, SBC, LG Electronics, Lucent	7.7	[P-CR]	Included in S2-050920

TD number	Title	Source	Agenda	Document for	Status / Comment
S2-050895	Service Continuity – Scope	Motorola, Cingular, SBC, LG Electronics, Nortel, Lucent	7.7	[P-CR]	Approved for inclusion in the draft TR.
S2-050896	Service Continuity – Overall Requirements	Motorola, Cingular, SBC, LG Electronics, Nortel, Lucent	7.7	[P-CR]	Approved for inclusion in the draft TR.
S2-050897	Core Network nodes overload prevention	LG Electronics	6.6	DISCUSSION	Noted. Off-line discussion invited.
S2-050898	Service Continuity – Architectural Requirements	Motorola, Cingular, SBC, LG Electronics, Nortel, Lucent	7.7	[P-CR]	Revised in S2-050924
S2-050899	Security considerations	Siemens	7.4	[P-CR]	Approved for inclusion in the draft TR.
S2-050900	IMS Registration in the context of Emergency Calls	Siemens	7.4	[P-CR]	Approved for inclusion in the draft TR.
S2-050901	DRAFT Reply LS on Harmonization of SMS/MMS over generic IP access	SA WG2	4	[LS OUT]	Revised in S2-050950
S2-050902	Processing of MCEF	Huawei	7.2	[P-CR]	Approved for inclusion in the draft TR.
S2-050903	Handling of failure SMS-MT delivery	Huawei	7.2	[P-CR]	Approved for inclusion in the draft TR.
S2-050904	General corrections	Huawei	7.2	[P-CR]	Approved for inclusion in the draft TR.
S2-050905	DRAFT Reply to LS on MBMS Session Duration IE	SA WG2	4	[LS OUT]	Revised in S2-050946
S2-050906	Proposed CR to 23.246 on Estimated Session Duration	Telecom Italia	6.6	[CR]	Postponed to next meeting
S2-050907	Revised Agenda for SA WG2 #45 meeting	SA WG2 Chairman	2	AGENDA	Noted
S2-050908	DRAFT Reply LS to OMA-LOC	SA WG2	7.8	[LS OUT]	Revised in S2-050951
S2-050909	Proposed CR to 23.246 on corrections to inter SGSN routeing area update procedure	Alcatel-Shanghai Bell Co., Ltd.	6.6	[CR]	Revised in S2-050913
S2-050910	MBMS Join clarification	Ericsson	6.6	[CR]	Revised in S2-050914
S2-050911	Addition of GERAN to the scope section	Siemens	6	CR	Approved
S2-050912	Proposed CR 0142 to 23.246: Extension of the use of MBMS support indication from SGSN to UE	NEC Technologies	6.6	CR	Approved
S2-050913	Proposed CR to 23.246 on corrections to inter SGSN routeing area update procedure	Alcatel-Shanghai Bell Co., Ltd.	6.6	CR	Approved
S2-050914	MBMS Join clarification	Ericsson	6.6	[CR]	Revised in S2-050961
S2-050915	Architecture Baseline	Ericsson	7.5	[P-CR]	Revised in S2-050922
S2-050916		SA WG2	4	WITHDRAWN	
S2-050917	DRAFT Reply LS on Shared Public Identity	SA WG2	4	[LS OUT]	Revised in S2-050943
S2-050918	Alignment of Session-based Messaging flows with stage 3	RIM	6.1	CR	Approved
S2-050919	On AS forking	Siemens	6.1	CR	Approved
S2-050920	Service Continuity – Basic Assumption	Motorola, Cingular, SBC, LG Electronics, Lucent	7.7	[P-CR]	Revised in S2-050964
S2-050921	Requirements on the System Architecture Evolution		7.5	[P-CR]	Approved for inclusion in the draft TR.
S2-050922	Architecture Baseline	Ericsson	7.5	[P-CR]	Revised in S2-050962
S2-050923	Updated TR System Architecture Evolution	Editor	7.5	TR	Noted for checking and use for change proposals
S2-050924	Service Continuity – Architectural Requirements	Motorola, Cingular, SBC, LG Electronics, Nortel, Lucent	7.7	[P-CR]	Approved for inclusion in the draft TR.
S2-050925	Definition and description of operator control	China Mobile	7.7	[P-CR]	Revised in S2-050965
S2-050926	IP based UE	Ericsson	7.2	[P-CR]	Approved for inclusion in the draft TR.
S2-050927	Support of OTA Service	Siemens	7.2	[P-CR]	Approved for inclusion in the draft TR.
S2-050928	Support of interworking between networks	Siemens	7.2	[P-CR]	Approved for inclusion in the draft TR.
S2-050929	DRAFT LS reply on service based inter-system hand over	SA WG2	6	[LS OUT]	Revised in S2-050944
S2-050930	TPF behaviour in case of no charging rules for a bearer	Siemens	8.1	CR	Approved
S2-050931	DRAFT LS on Interconnection Models for IMS networks in an End-to-End QoS context	SA WG2	8.2	[LS OUT]	Revised in S2-050960

TD number	Title	Source	Agenda	Document for	Status / Comment
S2-050932	BCF discovery in off-path model for TR 23.802	Huawei, China Mobile	8.2	[P-CR]	Approved for inclusion in the draft TR.
S2-050933	Profile in the PDF and BCF for the path choosing	ZTE Corporation	8.2	[P-CR]	Approved for inclusion in the draft TR.
S2-050934	Complements on agreement between the UMTS and Backbone IP network	ZTE Corporation	8.2	[P-CR]	Approved for inclusion in the draft TR.
S2-050935	Procedures for the on-path model	Ericsson	8.2	[P-CR]	Approved for inclusion in the draft TR.
S2-050936	Draft TR 23.802 after update at SA2#45		8.2	TR	Approved
S2-050937	LS on exchange of radio capabilities in CSI	SA WG2	8.3	LS OUT	Approved
S2-050938	LS, Reply to CT1 LS reply on protocol aspects for CSI	SA WG2	8.3	[LS OUT]	Revised in S2-050954
S2-050939	Updated CSI TS 23.279	CSI Rapporteur	8.3	TS	Noted for checking and use for change proposals
S2-050940	DRAFT LS on GPRS P-CSCF discovery procedure	SA WG2	5	[LS OUT]	Revised in S2-050959
S2-050941	Reply LS on Control of simultaneous accesses for WLAN 3GPP IP access	SA WG2	4	LS OUT	Approved
S2-050942	LS on 3rd party registration and shared public user identities	SA WG2	4	[LS OUT]	Revised in S2-050953
S2-050943	Reply LS on Shared Public Identity	SA WG2	4	LS OUT	Approved
S2-050944	LS reply on service based inter-system hand over	SA WG2	6	LS OUT	Approved
S2-050945	Reply LS on Mandating functionality in WLAN ANs	SA WG2	6.5	LS OUT	Approved
S2-050946	Reply to LS on MBMS Session Duration IE	SA WG2	6.6	LS OUT	Approved
S2-050947	DRAFT LS on MBMS Bearer Capability use	SA WG2	6.6	[LS OUT]	Revised in S2-050968
S2-050948	Reply LS on MBMS User Service finalization from SA4	SA WG2	4	LS OUT	Approved
S2-050949	Reply LS on MBMS Session Repetition from SA4	SA WG2	6.6	LS OUT	Approved
S2-050950	Reply LS on Harmonization of SMS/MMS over generic IP access	SA WG2	4	LS OUT	Approved
S2-050951	Reply LS to OMA-LOC on support for velocity information in the OMA LOC protocols	SA WG2	7.8	LS OUT	Approved
S2-050952	DRAFT LS on DCC session handling	SA WG2	8.1	[LS OUT]	Revised in S2-050958
S2-050953	LS on 3rd party registration and shared public user identities	SA WG2	4	LS OUT	Approved
S2-050954	LS, Reply to CT1 LS reply on protocol aspects for CSI	SA WG2	8.3	LS OUT	Approved
S2-050955	Draft minutes of S2#44	MCC	3	REPORT	Approved
S2-050956	Future meetings	SA WG2 Chairman	11	[INFO]	Noted
S2-050957	Minutes of S2#44	MCC	3	REPORT	Approved
S2-050958	LS on DCC session handling	SA WG2	8.1	LS OUT	Approved
S2-050959	LS on GPRS P-CSCF discovery procedure	SA WG2	5	LS OUT	Approved
S2-050960	LS on Interconnection Models for IMS networks in an End-to-End QoS context	SA WG2	8.2	LS OUT	Approved
S2-050961	MBMS Join clarification	Ericsson	6.6	CR	Approved
S2-050962	Architecture Baseline	Ericsson	7.5	[P-CR]	Approved for inclusion in the draft TR
S2-050963	QoS enhancement for 3GPP-WLAN Interworking	T-Mobile, Cingular Wireless, Orange, LG Electronics, Huawei	7.6	[P-CR]	Approved for inclusion in the draft TR
S2-050964	Basic Assumptions for Voice call Continuity between CS and IMS (including I-WLAN)	Motorola, Cingular, SBC, LG Electronics, Lucent	7.7	[P-CR]	Approved for inclusion in the draft TR
S2-050965	Definition and description of operator control	China Mobile	7.7	[P-CR]	FOR E_MAIL APPROVAL. Revised in S2-050972
S2-050966	Draft Voice Call Continuity between CS and IMS TR	Lucent Technologies	7.7	TR	Approved
S2-050967	Draft TR "Selective Disabling" after inclusion of agreed changes at this meeting	Rapporteur	7.9	TR	Noted for checking and use for change proposals
S2-050968	LS on MBMS Bearer Capability use	SA WG2	6.6	LS OUT	Approved
S2-050969	Proposed Requirements	Ericsson	8.1	[P-CR]	Approved by e-mail 15/04/2005
S2-050970	Criteria for binding	Ericsson	8.1	[P-CR]	Approved by e-mail 15/04/2005

TD number	Title	Source	Agenda	Document for	Status / Comment
S2-050971	PCC: Limitations of the Authorization Token and TFT binding mechanisms	Nortel	8.1	[P-CR]	Approved by e-mail 15/04/2005
S2-050972	Definition and description of operator control	China Mobile	8.1	[P-CR]	Approved by e-mail 15/04/2005

Annex D: List of meeting participants and voting list

D.1 List of attendees

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D.2 SA WG2 Voting list

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BridgePort Networks	US	3GPPMEMBER	ETSI
BT Group Plc	GB	3GPPMEMBER	ETSI
China Academy of Telecommunications Technology	CN	3GPPMEMBER	CCSA
China Mobile Communications Corporation (CMCC)	CN	3GPPMEMBER	CCSA
Cingular Wireless LLC	US	3GPPMEMBER	ATIS
Cisco Systems Belgium	BE	3GPPMEMBER	ETSI
Convedia Corporation	CA	3GPPMEMBER	ETSI
DoCoMo Europe S.A.	FR	3GPPMEMBER	ETSI
Electronics & Telecommunications Research Institute	KR	3GPPMEMBER	TTA
Ericsson Incorporated	US	3GPPMEMBER	ATIS
Ericsson Korea	KR	3GPPMEMBER	TTA
FUJITSU Laboratories of Europe Limited	GB	3GPPMEMBER	ETSI
Fujitsu Limited	JP	3GPPMEMBER	ARIB
Fujitsu Limited	JP	3GPPMEMBER	TTC
Hewlett-Packard, Centre de Compétences France	FR	3GPPMEMBER	ETSI
HUAWEI TECHNOLOGIES Co. Ltd.	CN	3GPPMEMBER	ETSI
HuaWei Technologies Co., Ltd	CN	3GPPMEMBER	CCSA
Hutchison 3G UK Ltd (3)	GB	3GPPMEMBER	ETSI
INFINEON TECHNOLOGIES	DE	3GPPMEMBER	ETSI
INTEL CORPORATION SARL	FR	3GPPMEMBER	ETSI
INTERDIGITAL COMMUNICATIONS CORPORATION	US	3GPPMEMBER	ETSI
KDDI Corporation	JP	3GPPMEMBER	TTC
Koninklijke KPN N.V.	NL	3GPPMEMBER	ETSI
LG Electronics Inc.	KR	3GPPMEMBER	TTA
LG Electronics Mobilecomm France	FR	3GPPMEMBER	ETSI
Lucent Technologies	US	3GPPMEMBER	ATIS
Lucent Technologies Network Systems UK	GB	3GPPMEMBER	ETSI
MOTOROLA Ltd	GB	3GPPMEMBER	ETSI
NANJING ERICSSON PANDA COMMUNICATIONS LTD	CN	3GPPMEMBER	CCSA
NEC Corporation	JP	3GPPMEMBER	ARIB
NEC Corporation	JP	3GPPMEMBER	TTC
NEC EUROPE LTD	GB	3GPPMEMBER	ETSI
NEC Technologies (UK) Ltd	GB	3GPPMEMBER	ETSI
Nextreaming Corporation	KR	3GPPMEMBER	TTA
Nippon Ericsson K.K.	JP	3GPPMEMBER	ARIB
NOKIA Corporation	FI	3GPPMEMBER	ETSI
Nokia Japan Co, Ltd	JP	3GPPMEMBER	ARIB
Nokia Telecommunications Inc.	US	3GPPMEMBER	ATIS
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Nortel Networks (USA)	US	3GPPMEMBER	ATIS
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Northstream AB	SE	3GPPMEMBER	ETSI
NTT DoCoMo Inc	JP	3GPPMEMBER	TTC
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O2 plc	GB	3GPPMEMBER	ETSI
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QUALCOMM EUROPE S.A.R.L.	FR	3GPPMEMBER	ETSI
Research In Motion Limited	CA	3GPPMEMBER	ETSI
RITT	CN	3GPPMEMBER	CCSA
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Company	Country	Status	Partner Org
SHARP Corporation	JP	3GPPMEMBER	ARIB
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SIEMENS Mobile Communications S.p.A.	IT	3GPPMEMBER	ETSI
Siemens nv/sa	BE	3GPPMEMBER	ETSI
SiRF Technology Inc	US	3GPPMEMBER	ETSI
SK TELECOM	KR	3GPPMEMBER	TTA
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Telefon AB LM Ericsson	SE	3GPPMEMBER	ETSI
TELEFONICA S.A.	ES	3GPPMEMBER	ETSI
Telenor AS	NO	3GPPMEMBER	ETSI
TeliaSonera AB	SE	3GPPMEMBER	ETSI
T-Mobile AUSTRIA GmbH	AT	3GPPMEMBER	ETSI
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VODAFONE Group Plc	GB	3GPPMEMBER	ETSI
VODAFONE LTD	GB	3GPPMEMBER	ETSI
Zhongxing Telecom Ltd.	CN	3GPPMEMBER	CCSA

78 Voting Members

3GPP TSG SA WG2 Architecture — S2#46 **DRAFT REPORT**

9 - 13 May 2005

Athens, Greece

Source:	**Secretary of 3GPP TSG-SA WG2**
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The Acropolis, Athens

Contents

1 Opening of the meeting

The SA WG2 Chairman, Mr. M. Olsson opened the meeting which was hosted by the European Friends of 3GPP, in Athens, Greece. Mr. F. Mademann welcomed delegates to Beijing on behalf of the Hosts and provided general information on the meeting organisation.

A joint session with RAN WG2 and RAN WG3 was planned for Wednesday 11 May in the afternoon.

2 Approval of the agenda

TD S2-051016 (Revision of TD S2-050973). The Draft Agenda for the meeting was provided by the SA WG2 Chairman and was reviewed. It was reported that some meeting time on IuFlex with RAN WG3 delegates would be desirable and some time for this would be arranged if possible. Additional session were arranged for various early mornings and evenings.

It was noted that TD S2-051087 should be under agenda item 6.5 and the drat agenda was approved.

2.1 IPR Call Reminder

The chairman made the following call for IPRs, and asked ETSI members to check the latest version of ETSI's policy available on the web server:

> The attention of the delegates to the meeting of this Technical Specification Group was drawn to the fact that 3GPP Individual Members have the obligation under the IPR Policies of their respective Organizational Partners to inform their respective Organizational Partners of Essential IPRs they become aware of.
> The delegates were asked to take note that they were thereby invited:
> - to investigate whether their organization or any other organization owns IPRs which were, or were likely to become Essential in respect of the work of 3GPP.
> - to notify their respective Organizational Partners of all potential IPRs, e.g., for ETSI, by means of the IPR Statement and the Licensing declaration forms (http://webapp.etsi.org/Ipr/).

3 Meeting reports

TD S2-050974 Draft Report of SA WG2 meeting #45. Comments were provided during the meeting and the report revised in TD S2-051450 which was approved.

TD S2-051159 E-mail approval result of S2#45. This was introduced by the SA WG2 Vice Chairman and was approved.

TD S2-051293 Notes from last phone conference. This was approved.

4 Incoming Liaison Statements

TD S2-051307 Document Allocation and LS review. This was provided by the SA WG2 chairman and proposed the handling of the available LSs for the meeting.

TD S2-050982 LS from TISPAN WG1: Applicability of TISPAN PSTN ISDN simulation service. This was introduced by the SA WG2 Chairman. TISPAN provide TSG SA with the status of the work and to consider if the IMS-based Telephony service being defined by TISPAN is applicable also to mobile networks and their users. TISPAN would also appreciate feedback on the IMS based Telephony service to ensure that the service can also work in a mobile environment (Attached: 05bTD228a1r2 and 05bTD128r3). This LS was provided for information and was noted.

TD S2-051049 LS from CT WG1: I-WLAN as access technology for IMS. This was introduced by the SA WG2 Chairman. As a result of guidelines from the TSG CT plenary, CT WG1 has worked on a CR to introduce I-WLAN as a valid access technology for IMS. CT WG1 has agreed on a CR that introduce I-WLAN over IMS in Release 6. CT WG1 ask SA WG2 investigate whether changes are required to 23.228 as a result of these decisions. No changes to TS 23.228 were identified by delegates, but it was commented that TS 23.228 is access independent and changes in other TSs or TRs may be needed. The LS was noted and impacts of this should be reviewed by delegates.

TD S2-051055 Reply LS (from CT WG4) for clarification of SA WG2 requirement on Presence. This was introduced by the SA WG2 Chairman. CT WG4 has approved the contribution on the issue of collecting WLAN related presence information via Pr interface by Presence Network Agent. This contribution is in line with stage 2 requirements as stated in TS 23.141 and people saw no technical problems with those requirements by SA WG2. However, during the discussion, there was dispute on the issue that whether some requirements as stated in SA WG1 TS 22.141 (V6.4.0) are missing in SA WG2 TS 23.141 (V6.7.0). SA WG2 are asked to clarify the requirements of Presence in this respect so that further work can be achieved on the stage 3 relating to this respect within CT WG4. It was agreed that a response LS should be written explaining the intended working of Presence and this was provided in TD S2-051313 and reviewed. Some clarifications to the text were made and the LS was revised in TD S2-051447 which was approved.

TD S2-051057 LS (from CT WG4) on Detecting new RAT type GAN. This was introduced by Nokia. Generic Access to A/Gb interfaces (architecture described on 3GPP TS 43.318 v6.0.0) has been added into 3GPP Rel-6 content. CT WG4 ask for clarification from SA WG2 and TSG GERAN for how to identify the proposed RAT type GAN in SGSN? It was commented that it was not appropriate to have this type of GAN in the TS. It was discussed and agreed that it is not a simple case of adding this GAN to the TS but that the need for support on the packet-side for Home Zone type solutions needs discussion. A drafting group was set up for this and to draft a response LS. **The group decided to postpone the response to the LS and TD S2-051057 will be dealt with again at the next SA WG2 meeting**.

The following LSs were noted, according to the SA WG2 Chairman's recommendation in TD S2-051307:

TD S2-0500975 LS (from GERAN WG2) on service based inter-system hand over.

TD S2-050978 Reply (from RAN WG2) to LS on AMR multi-rate operation of VoIMS.

TD S2-050980 LS reply (from SA WG1) on service based inter-system hand over.

TD S2-050981 LS from SA WG1: Mandatory functionality in W-LAN.

TD S2-050983 Reply LS (from RAN WG2) on Number of Idle mode UEs.

TD S2-050996 Reply LS (from GERAN WG2) on AS–NAS interaction on MBMS service priorities.

TD S2-050997 Reply LS (from GERAN WG2) on Session Repetition.

TD S2-050998 Response LS (from GERAN WG2) on the PS Handover Work.

TD S2-050999 Response LS (from GERAN WG2) on the PS Handover Work.

TD S2-051047 Reply LS (from CT WG1) on Application Charging ID (ACID) for PoC.

TD S2-051050 Reply LS (from CT WG1) on Service Based Inter-System Handover.

TD S2-051053 LS (from CT WG3) on IMS support of TISPAN NGN supplementary services.

TD S2-051054 Reply LS (from CT WG4) on Shared Public identity.

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TD S2-051152 23271-CR0302: Clarifications on the use of non-dialable call-back number. This was introduced by Ericsson. Summary of change: Three new definitions are given, one for non-dialable call-back numbers, one for the SIM-less emergency call and another for the non-registered (U)SIM emergency call, which is a case that is missing from the TS. Some editorial changes are also needed, due to those definitions. It was commented that the term "*SOS calls only*" mode should not be used if it is not already defined and the terminology of the Stage 3 should be adopted instead. It was agreed that this should be removed from the text to avoid confusion. Some editorial errors were also noted. The need for this change in Rel-5 was questioned as the consequences if not approved did not cause serious implementation or interoperability problems. This CR was therefore noted (rejected) for Rel-5 and the comments should be taken into account in the Rel-6 and Rel-7 mirror CRs.

Mirror CRs were provided in TD S2-051153 (Rel-6) and TD S2-051154 (Rel-7). The Rel-6 CR was revised in TD S2-051334 and reviewed. An editorial correction was made (making a word bold text) and the CR revised in TD S2-051409 which was approved. TD S2-051154 was revised to make the same editorial correction and to make it Category "A" in TD S2-051410 which was approved.

TD S2-051060 Discussion of adding delay variation to UMTS bearer attributes in TS23.107. This was introduced by China Mobile. In this contribution, it is discussed that the attribute of time delay is very important for conversational and streaming classes. It is suggested to add it in UMTS bearer attributes in TS 23.107. The corresponding change proposals were provided in TD S2-051061.

TD S2-051061 23107-CR0157: Adding delay variation (Jitter) to UMTS bearer attributes in TS 23.107. This was introduced by China Mobile. It was clarified that "1 - 10-3" intended to be "1 - 10^{-3}". It was questioned whether SA WG5 had included this attribute in their specifications and asked SA WG2 to include it. It was commented that no significant benefits or requirement for this attribute had been found, as reported in TD S2-042945 and this should not now be added. It was reported that the ITU work may mean that if 3GPP Networks do not transfer this attribute over network boundaries, then only "Best Effort" service may be allocated by the foreign network. No significant benefit or requirement for this attribute was identified and the documents TD S2-051060 and TD S2-051061 were noted.

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TD S2-051170 24141-CR0077. Modification about reference link in 24.141. This was introduced by Huawei. Summary of change: Delete Invalid reference link about Pr ref. point in section 4.3.12. It was suggested that the sentence in 4.3.12 should be corrected rather than removed. It was also commented that as the functionality of DIAMETER will be used instead of the Pr reference point (as proposed by CT WG4), then the reference should be made to 29.234. The CR was revised accordingly as a Category F CR in TD S2-051318 which was reviewed and approved.

TD S2-051180 23141-CR0072: Alignment with Stage 3. This was introduced by Orange. Summary of change: Text added in section 5.1 that the Presence Server shall be able to process partial publications if received from Presence User Agents. This CR was approved.

TD S2-051181 23141-CR0073: Update of references. This was introduced by Orange. It was commented that editorial clarifications should be made for the references in the text and the CR was revised in TD S2-051319 which was reviewed and approved.

TD S2-051182 23141-CR0074: Location of Presence entities. This was introduced by Orange. Summary of change: It is clarified - in section 4.3.2 that the Pen interface is intra operator; - in section 4.3.7 that the Px interface is intra operator; - in section 4.3.15 that the Pwp interface is intra operator; - in section 5.2.1 that the Network based Presence User Agent is in the Presentity's home network; - in section 5.2.2 that the Presence Network Agent is in the Presentity's home network. Section 5.2.2 was corrected to include a new heading "5.2.2.0 General" in TD S2-051320 which was approved.

TD S2-051183 23141-CR0075: Locating the Presence Server. This was introduced by Orange. The access to the presence server from the watcher is corrected in section 5.3.2: Summary of change: When a Watcher application intends to access some presence information of a presentity, it first needs to contact its Watcher Presence Proxy which will contact the Presentity Presence Proxy to find the Presence Server containing this information. This CR was approved.

TD S2-051184 23141-CR0076: UE based PUA/Network based PUA. This was introduced by Orange. Summary of change: In section 5.2.1 figures 5.2.1-1 and 5.2.1-2, the PUA is interfaced with the Presentity Presence Proxy via Pep and with the PS via Peu. A figure 5.2.1-3 is added to show the PUA in IMS architecture. In section 5.3.4 figure 5.3.4-1, the P-CSCF is added in the Presentity Presence Proxy as well as its Pep=Gm interface with the UE based PUA, its Pep interface with the Network based PUA. The change bars for inserted figures were not shown so this was corrected in TD S2-051321 which was approved.

TD S2-051274 23060-CR0527 R2: Activation of secondary PDP context without TFT. This was introduced by Siemens. Revision of previously approved CR (S2-050800). Summary of change: The text describing the relation of PDP contexts and TFTs is modified to clarify that a TFT is not always associated with a PDP context during a secondary PDP context activation. Some sentences are rephrased or moved to improve the understanding of the functionality related to the TFT. This CR was approved. It was noted that this replaces the Revision 1 of the CR which was approved at SA WG2 meeting #45.

TD S2-051275 23207-CR0087: Update of binding information handling. This was introduced by Siemens. Summary of change: A sentence about the limitation is deleted. Instead, it is clarified in the relevant sections that one or more sets of the binding information may have to be handled for the same PDP context. The reference to the stage 3 specification for the Gq interface is updated. This CR was discussed and approved.

TD S2-051276 23002-CR0156: Addition of Flow Based Charging architecture. This was introduced by Siemens. Summary of change: Descriptions of the charging rules function and of the related reference points are added. The description of the application function and the figure 1 is also updated accordingly. References to relevant stage 2 specifications are added for flow based charging and service based local policy. It was commented that AF should be included in the figure There was some discussion on the terminology used in and it was agreed to elaborate the CR off-line. The CR was revised in TD S2-051332 (modifications had been made to 4A.14). The Cr was reviewed and approved.

Iu-flex related contributions were introduced briefly in turn for a general discussion afterwards:

TD S2-051293 Brief notes of teleconference: 3rd SA 2 teleconference on 'load balancing with Iu/A/Gb flex'. This was introduced by the phone conference convener (Vodafone). This was reviewed and approved.

TD S2-051176 Scenarios and requirements for Iu/Gb/A-flex Re-distribution. This was introduced by Ericsson. This contribution tries to unify a view of User scenarios and key requirements for how the Iu-flex re-distribution feature will be used by operators. Alcatel commented that Scenarios 1 and 2 may be useful, as the re-balancing of load after removing a node from service could be done automatically. Ericsson responded that removing a node in an overload situation may trigger overload situations on many other nodes.

TD S2-051002 A/Gb/Iu Flexibility RAN load-sharing-centric solutions. This was introduced by Alcatel. This contribution proposes a solution for the case of smooth removal of a CN node in case of Iu Flex, where the trigger point to move the UE is in CN but the load-sharing algorithm is in the RAN.

TD S2-051134 Load re-balancing in A/Gb/Iu Flexibility. This was introduced by Nortel Networks. This document studies what is the information triggering RAN to routes the UE message to a new CN node (with impact of Gs interface) and how the new SGSN determines the old SGSN address in order to retrieve MM and PMM UE contexts. It was commented that the impact on the RAN should also be included for the 2 solutions, in order to make a fair comparison between the solutions. This was then left to review other contributions.

TD S2-051135 Location of load balancing algorithm. This was introduced by Nortel Networks. This document studies where is located the load balancing algorithm: which network node selects the new CN node to attach the UE to. This was discussed concerning the automation of the solutions after the human decision to remove a node from service and then left to review other contributions.

TD S2-051137 Load re-balancing for long lived PS sessions. This was introduced by Nortel Networks. Study of a solution to re-balance load for CONNECTED mode UEs. This was reviewed with other contributions.

TD S2-051294 Issues with current proposed Iu/A/Gb Flex Load Balancing solutions. This was introduced by Vodafone. This document looks at some of the solutions proposed by existing SA WG2 documents (S2-050643; S2-050677; S2-050678; S2-050715) and identifies some potential solutions for problems. This was reviewed with other contributions.

TD S2-051249 Iu-flex Comparison Table - updated. This was introduced by Lucent. Updated version of comparison table presented at the last SA WG2 meeting, updated as a result of comments received. This was reviewed with other contributions.

TD S2-051295 Comparison and proposed conclusion. This was introduced by Vodafone. Since the SA WG2 meeting in Budapest in Jan '05 there has been considerable technical analysis and useful technical debate on the different mechanisms for the load redistribution requirements raised by S2-050212. It is now time to make a decision on which route to adopt. This document provides some crude analysis to aid a conclusion. Other companies may provide more sophisticated analysis. This was reviewed with other contributions.

General discussion: A discussion and drafting group met over drafting sessions and provided TD S2-051339, based on TD S2-051249 which was elaborated and revised into a discussion document in TD S2-051399 and TD S2-051400:

TD S2-051400 Revision of TD S2-051339 (revision of TD S2-051249): Comparison of proposed Iu/A/Gb Flex Load Balancing solutions - clean. This was introduced by Lucent Technologies on behalf of the Drafting Group. This is a tidied up version of TD S2-051399. Revision marks show any non editorial changes from TD S2-051399. Discussion on load balancing and node reset with Iu-flex on the Teleconference agreed to look at specific parts of the proposal instead of the whole solution. The different topics that were identified were:

1) The trigger for the re-distribution - where and how
No decision could be made by SA WG2, so the options are to continue contribution on this and inform TSG SA of this, or to inform TSG SA of the current split in opinions and ask them to make a decision on this. It was agreed that TSG SA should be informed that SA WG2 wish to progress on this and ask it's Members to make sure the relevant experts get involved in this work and express their opinions in SA WG2 in order to provide a clear majority opinion in SA WG2 (straw poll gave 3 votes for the RNC placing option and 4 votes for the CN placing option, out of some 40 Member companies at the meeting).

2) The selection of the new node – where does it happen
It was decided that in order to make some initial progress that the selection of the new node is done in the RAN.

3) (P-)TMSI address space limitation
(No discussion).

4) Gs interface
(No discussion).

It was decided that a phone conference will be held to discuss these issues. This was set for Thursday 9 June morning. Details will be distributed by C. Pudney, Vodafone.

TD S2-051296 23236-CR006 R1: Load re-distribution with A/Gb/Iu flex. This was introduced by Vodafone. Revision of CR in S2-050212. This was withdrawn after off-line discussions.

TD S2-051136 23246-CR0019: Load re-distribution with A/Gb/Iu flex. This was introduced by Nortel Networks. CR associated for IDLE mode UEs. This was discussed with other Iu-flex contributions and was noted.

TD S2-051138 23246-CR0020: Load re-distribution for long-lived PS session. This was introduced by Nortel Networks. CR associated for CONNECTED mode UEs. This was discussed with other Iu-flex contributions and was noted.

TD S2-051408 23236 CR0020: Load re-distribution with A/Gb/Iu flex. This was introduced by Vodafone and was noted.

6.1 IMS Phase 2 [IMS2]

TD S2-051187 23228-CR0495: Support of Topology Hiding and Access Network NAT traversal. This was introduced by Ericsson. Summary of change: Two new clauses introducing the technical requirements for the support of network topology hiding from the User equipment, and the requirement for NAT detection and traversal in the user equipment. There was some concern over the inclusion of the fixed telephony requirements at this early stage. It was suggested to produce a TR to collect the requirements and solutions before updating the main specification set. It was argued that requirements do exist in TISPAN and that 3GPP should not duplicate their work. It was finally considered appropriate to include TISPAN requirements in a normative annex, rather than in the main body text of the specification. It was also agreed that the correct way to make changes to IMS architecture are to provide CRs to SA WG2 and not to take them to TISPAN in order to have them inserted through this route. The CR was revised to include the aspects of 4.13 and the other comments included in TD S2-051360 which was reviewed. The cover sheet contained some errors and a new CR number was needed as the scope of the CR had changed. The CR in TD S2-051360 was withdrawn and a new CR0498 was provided in TD S2-051419 and was **left for email approval due to lack of time.**

TD S2-051089 NAT traversal for IMS. This was introduced by Nokia. In current access networks NAT devices performing address and port translation are widely deployed, while the current IMS specifications do not provide any solution to use IMS behind NAT devices. This paper highlights some problems of NAT traversal and presents some possible ways to resolve them. This contribution was noted.

TD S2-051052 Reply LS (from CT WG1) on GPRS P-CSCF discovery procedure. This was introduced by the SA WG2 Chairman. CT WG1 thanks SA WG2 for the LS. The subject was thoroughly discussed in CT WG1 #38 and conclusions were reached. CT WG1 ask SA WG2 to take the reply from CT WG1 into account and possibly guide CT WG1 further on the subject. It was not considered necessary to update any SA WG2 specifications. The LS was noted.

TD S2-051056 LS (from CT WG4) on clarification for Public Service Identity. This was introduced by France Telecom. CT WG4 is working on the introduction of the Public Service Identity (PSI) handling in Cx/Sh interfaces with the assumption that those identities should be handled as much as possible in a similar way that the IMS subscriber identities (public user identity and private user identity) are handled in the HSS and CSCF and have identified some open issue for the case of "Request originated by the AS hosting the PSI". CT WG4 provide 5 actions for SA WG2. A response to these questions was provided in TD S2-051361 which was reviewed. **It was decided to send this for e-mail approval.**

TD S2-051068 23228-CR0492: Send Terminating User terminal's currently available capabilities. This was introduced by LG Electronics. For Incoming sessions, If the terminating user has none of the proposed parameters available, the UE may send its currently available capabilities rather than reject the incoming session. It was argued that mandating this in IMS required a stronger argument in order to show that this is needed, in particular for Rel-6. The CR was therefore noted, as the intention of this CR is already supported in existing documents. **LG were invited to bring a strong argument to the next meeting if they do not agree that it is already covered**.

TD S2-050988 23228-CR0491: Corrections to wildcarded PSIs. This was introduced by Vodafone. Corrections to wildcarded PSIs as to align with 23.003-CR0100 (as per discussions at the recent CT4 #27). Summary of change: PSIs will be defined twice in the 3GPP specification set. This is bad as it will inevitably at some point in the future diverge and 3GPP will have conflicting definitions which lead to non-interoperability of equipment. It was noted that the TSG CT CR would need to be aligned with this change if it were agreed. The CR was approved and a LS to TSG CT asking them to align the CR in TD S2-051363 which was revised to Capitalise TEL URI and remove draft from the title in TD S2-051411 which was approved.

TD S2-051166 23228-CR0493: Correction to the IMS session flows. This was introduced by Huawei. Summary of change: Correction to the PSTN-O procedure and the S-S procedures. Huawei reported that the flows had been studied and this proposal was the simplest way of correcting the procedures. It was commented that this did not solve the complete issue and further study is needed. The CR was noted. It was also noted that there were some errors in the CR which occurred when joining the flows together and delegates were asked to try to find a good solution. If a correct solution cannot be found, then a note may be added to inform implementers of the method needed to join flows together, advising caution on the implementation of joined flows.

TD S2-051167 23228-CR0494: Clarification to the routing of SIP signalling within the IMS network. This was introduced by Huawei. Summary of change: Clarify how SIP signalling using TEL-URI is routed in the IMS network. Huawei clarified that this proposal does not change the functionality of the HSS. It was stated that section 4.3.3.3 is for routing of SIP signalling and this proposal appears to be showing how to get to the CSCF and start routing. This

was further discussed off line and the CR revised in TD S2-051364 which was reviewed. A new formulation to clarify the intention of the CR was suggested and the CR was revised again in TD S2-051412 and reviewed. In step 3 TEL URL should be TEL URI and an editorial change to the first sentence and the CR was revised in TD S2-051451 which was approved.

TD S2-051282 23228-CR0497: Correction to ENUM resolution for Infrastructure ENUM. This was introduced by Vodafone. Summary of change: Alignment with IETF on ENUM implementations for E.164 addressing. This CR was approved. It was noted that the references in the original text are wrong and the editor was asked to check the specification for such errors.

6.2 3GPP enablers to support PoC [PoC]

TD S2-051078 23228-CR0496: Session setup with media set to inactive. This was introduced by Ericsson. Summary of change: The use of inactive/active is added as a valid option when setting up an IMS session. There were comments made on sections 5.7a.2 and 5.7a.3 and the CR was revised in TD S2-051359 which was approved.

6.3 LCS [LCS2]

TD S2-050100 LS (from OMA-LOC) to 3GPP TSG SA WG2 on MLP & RLP compliance. This was introduced by the SA WG2 Chairman. OMA is about to finalize the protocol specifications, MLP (Mobile Location Protocol) and RLP (Roaming Location Protocol). The compliance of MLP and RLP to 3GPP LCS specification, TS 23.271, has been analyzed. SA WG2 is kindly asked to review and to inform OMA LOC WG if any incorrectness is found in the compliance analysis made in the attached documents. This was postponed to the next meeting and delegates were asked to contribute towards a response to this LS.

6.4 Network Sharing [NTShar]

TD S2-051177 23251-CR0012: Clarification of PS and CS domain registration coordination. This was introduced by Ericsson. Domain coordination may be done in different ways. The standard only mentions how this is done in Gs enabled networks. It also needs to be specified how to handle this in networks not using the Gs interface. Domain coordination in RNC is described. In 4.2.5 it was clarified that the CN Node can indicate either cause value to the RNC, but the RNC may send it back to the same CN and this should be avoided. It was commented that the IMSI-based co-ordination is not obvious and mapping-based coordination would require large mapping tables. It was responded that one method would be to split IMSI ranges between CN Nodes. It was reminded that this is only for the handling of non-supporting UEs. The CR was discussed and revised off-line in TD S2-051391 which was reviewed. There was objection to the wording of the text which was clarified off-line and the CR revised again in TD S2-051413 which was revised again in TD S2-051437 which was **left for e-mail approval due to lack of time at the meeting**.

6.5 I-WLAN [WLAN]

TD S2-051046 LS from SA WG3: Detecting the start of a WLAN Direct IP Access session based on Wa/Wd Accounting Messages. This was introduced by Nokia. SA WG3 thanks SA WG2 for the liaison on Mandating functionality in WLAN ANs and has made necessary changes in SA3's specification. (see S3-050312). SA WG3 also inform SA WG2 that SA WG3 has studied the mechanism of detecting the start of a WLAN Direct IP Access session based on Wa/Wd Accounting Messages. SA WG3 ask SA WG2 to take notice that SA WG3 has made necessary changes in SA WG3's specification on "immediate purging of a user from WLAN AN" and to consider the mechanism described in S3-050181 and S3-050312, and introduce the corresponding changes in respective technical specifications if needed. A CR to TS 23.234 in response to this was provided by Nokia in TD S2-051087, which was reviewed:

TD S2-051087 23234-CR0126: Detecting the start of a WLAN Direct IP Access session based on Wa/Wd Accounting Messages. This was introduced by Nokia. In SA WG3 it has been agreed (S3-050181) that the Diameter/RADIUS accounting start message can be used to detect that a WLAN Direct IP Access session is created. This CR proposes to implement this change in TS 23.234 as well. It was agreed to replace "authentication" by "authenticated" in step 9 and to clarify the reason for change on the CR cover sheet. The CR was revised in TD S2-051353 which was approved.

A response LS to SA WG3 was provided in TD S2-051354 which was reviewed and revised to remove draft, add SA5 in copy and correct the header of the document in TD S2-051414 which was approved, attaching the CR in TD S2-051353.

TD S2-051006 23234-CR0124: User authentication for tunnel establishment. This was introduced by NEC. Summary of change: Add possible alternative option for user authentication and authorisation other than the EAP AKA/ EAP-SIM procedure in the section 7.9. There was some concern expressed over the scenario 3 requirements. It was clarified that this had been included in the Stage 1 and SA WG1 had sent a liaison about the non-authenticated access under scenario 3. It was clarified that it is up to the operator policy whether a check is made to validate the user authentication. The CR was revised in TD S2-051355 which was reviewed. There were concerns about direct access to the Home PDG through the internet. This was thought of need of clarification and the issue was discussed off-line and the CR revised in TD S2-051415 which was **left for e-mail approval due to lack of time at the meeting**.

.TD S2-051015 Proposed CR to 23.234 - 0123: Adding SBLP to Abbreviations. This was introduced by T-Mobile. Summary of change: Adding SBLP to abbreviations. (Resubmission of S2-050795,not handled in SA2#45). It was considered more complete to include this reference in TS 21.905 so it can be referenced in all the specifications. This was agreed and the CR was noted. T-Mobile undertook to create a CR to TS 21.905 to cover this.

TD S2-051086 23234-CR0125: Mandating Immediate Purging. This was introduced by Nokia, on behalf of Nokia and T-Mobile. During SA WG2#45 meeting it was agreed that the immediate purging of a user from the WLAN AN is a mandatory function that shall be supported by all WLAN ANs. This view of SA WG2 is inline with the requirement received from SA WG1 in S2-050981. This CR makes the immediate purging of a user from the WLAN AN a mandatory function of the WLAN ANs. This CR was approved.

TD S2-051281 DISC on Analysis of current Scenario 3 specification of inter- PLMN IP network. This was introduced by Vodafone. This discussion paper is based in the most part on that presented at CT WG4 #27 in TD C4-050585. In the current WLAN stage 2 documentation, Vodafone believe there lacks clarification in how DNS resolution is realised for the connection of a WLAN UE to a PDG. It should be noted that just like GGSNs in GPRS, the PDG may be located in the VPLMN or the HPLMN but, unlike GPRS, it is up to the WLAN UE and not the network to decide to which to connect (and hence perform the DNS resolution). It was stated that there was an operators' security requirement to use the GRX in order to keep DNS requests within the operators' networks. An off-line discussion was held over the lunch break and no conclusion could be drawn, so it was decided to note the contribution at this time. **Discussion and contribution was encouraged in order to review the issues at the next meeting**.

6.6 MBMS [MBMS]

TD S2-050976 Reply LS (from RAN WG2) on MBMS Session Repetition. This was introduced by the SA WG2 Chairman. RAN WG2 thank SA WG4 for their LS on MBMS Session Repetition and answer to the questions from a RAN WG2 perspective and ask SA WG4, SA WG2 and GERAN WG2 to consider the answers. This LS was noted.

TD S2-050977 LS (from RAN WG2) on 'release' of non-prioritised non-MBMS PS services. This was introduced by Samsung. RAN WG2 have further discussed the issue of service prioritisation in case of MBMS and would like to inform other groups about the resulting RAN WG2 assumptions regarding the 'release' of non-prioritised non-MBMS PS services. RAN WG2 requests CN WG1 and SA WG2 to take note of the RAN WG2 assumptions and to inform RAN WG2 if the assumptions are not considered acceptable. In case CN WG1 or SA WG2 have a different understanding of the existing prioritisation mechanism, RAN WG2 would like to be informed also. A related LS from CT WG1 in TD S2-051051 was considered with this LS.

TD S2-051051 LS (from CT WG1) on NAS actions in support of MBMS Reception. This was introduced by Samsung. CT WG1 thank RAN WG2 for their LS (R2-051109/C1-050503). CT WG1 has discussed this and agrees that IMS Signalling should be allowed to continue during MBMS reception. With respect to that, CT WG1 would like RAN WG2 to note that whilst the expectations are that IMS Signalling will be supported through a PDP Context established for IMS Signalling, it is possible that some users do set up a general purpose PDP Context for IMS Signalling. CT WG1 request SA WG2 to address this problem and provide a way forward for all the appropriate Stage 3 Specifications. It was commented that the UE should be able to perform the prioritisation. It was reported that the UE cannot send priority demands as there is no mechanism in the RAN to reserve resources. A discussion paper on this subject was provided in TD S2-051301 which was also considered.

TD S2-051301 NAS initiated actions prior to MBMS reception. This was introduced by Samsung. In continuing discussions in 3GPP_TSG_RAN_WG2, RAN WG2 has identified that for MBMS reception to be successful, the UE and the RNC and the CN must have the knowledge that the mobile has chosen to perform MBMS reception over other PS Services which it considers to be less important than the MBMS reception. These PS services which are of lower priority would typically have PDP Contexts with the characteristics of being Non-Real-time and non-GBR (Guaranteed Bit Rate). This contribution proposes a solution to add text in TS 23.246 (see TD S2-051032 for the proposed CR). It was commented that the use of an automatic release procedure would provide the required functionality without the large numbers of deactivation procedures proposed in this contribution. There was a request to avoid the use of GSM SUSPEND/RESUME due to concerns over this procedure in GSM. It was verified that this will not be triggered in the GERAN (and it does not exist in the UTRAN).

These issues were discussed further off-line and a response LS to CT WG1 and RAN WG2 was provided in TD S2-051341 and was reviewed. Some changes were suggested and the LS was revised in TD S2-051394 and reviewed. After some discussion to clarify the reasoning presented in the LS for SA WG2's preferences, the LS was revised to remove draft from the title in TD S2-051448 which was approved.

TD S2-051302 23246-CR0156: MBMS Service prioritization. This was provided by Samsung and was noted as the response to LS exchange on the subject needs to be awaited.

TD S2-050979 Reply LS (from RAN WG2) on stream bundling for MBMS. RAN WG2 thanks SA WG4 for their liaison on stream bundling. RAN WG2 generally sees no problem on RAN WG2 specifications if several streams of (potentially different user services) are bundled in the same bearer service. It is RAN WG2 assumption that that this is transparent to the access stratum which will just provide transmission and notification for one bearer service. RAN WG2 asks SA WG4, SA WG1, SA WG2 and SA WG3 to note the understanding and the background information for their further progress on MBMS. This LS was noted.

TD S2-050989 23246-CR0150: Corrections to Inter SGSN Routeing Area Update procedure. This was introduced by Alcatel Shanghai Bell. Summary of change:

1. Adding description of the handling of MBMS bearer service when an MBMS UE performs a RAU procedure based on the section 6.9.2.1 instead of 6.9.1.2.2 specified in TS 23.060.
2. Specifying that the old SGSN initiates the MBMS Multicast Deactivation procedure from step 9), i.e. the MBMS UE Context in the UE side remains.
3. When the UE moves from a MBMS not capable SGSN to a SGSN supporting MBMS, the UE shall initiate the MBMS Multicast Service Activation procedure in order for the SGSN to retrieve the MBMS Bearer Service.

It was reported that there was an error in the figure 14 which would need correcting if the CR is acceptable. It was noted that this made changes already agreed in the previous meeting in TD S2-050913 and these would need to be combined. A related proposal was provided in TD S2-051004 which was also reviewed. This CR was then noted and some details included in the revision of TD S2-051004 in TD S2-051362.

TD S2-051004 23246-CR0152: UE needs to join again for MBMS bearer service it has locally deactivated. This was introduced by NEC. Summary of change: Text is added to clarify that the UE has to join again if it wants to activate the MBMS bearer services which have been deactivated following an MBMS UE context synchronisation procedure. Alcatel Bell commented that they had another contribution which clarified that the user needed to join the service again and run the normal activation procedure (TD S2-050990). This was then revised in TD S2-051362 including some parts of TD S2-050989.

TD S2-050990 23246-CR0151: Corrections to MBMS Multicast Service Activation procedure. This was introduced by Alcatel Shanghai Bell. Summary of change: It is specified that the UE shall trigger a MBMS Multicast Service Activation procedure after a successful GPRS Attach procedure. There was an objection to requiring the UE to trigger the re-attach procedure. This CR was therefore noted.

It was decided to combine CRs in TD S2-051004 and TD S2-050989 in TD S2-051352 which was further revised, because a draft had been submitted in error, in TD S2-051362. This was discussed and it was noted that the changes to 8.9 and 8.10 would entail modifications to previously agreed CRs which changes the same text. This was reviewed off-line and a revision including all necessary changes was provided in TD S2-051396 which was reviewed. The changes were acceptable, but they had been made on top of CR0142r2, approved at the previous meeting. To resolve this problem, CR0142r2 will be revised which does not make changes to section 8.9. as these changes are included in CR0151r2. CR0151r2 was revised again in TD S2-051417 and CR142r2 (TD S2-050912) was revised in TD S2-051418 and these two CRs were approved.

TD S2-051058 23246-CR0153: On Estimated Session Duration. This was introduced by Telecom Italia. In section 8.3, it is clarified that MBMS Session Duration IE is mandatory in the MBMS SESSION START REQUEST. It was clarified that GERAN had agreed that the parameter will be provided as it is needed for the MS. RAN WGs will have to decide whether they forward this parameter or not. The CR was updated to add a reference to the Stage 3 CR in the comments section in TD S2-051392 which was approved.

TD S2-051240 23246-CR0143 R2: Modifications for MBMS tracing. This was introduced by Vodafone. Revision of previously approved MBMS Trace CR (S2-050887) to correct MBMS specific trace information to be passed to the BMSC. Also adds standalone Trace Activation as a result of Routeing Area Update. This CR was approved. **It was noted that this CR will only be submitted for TSG SA approval if CR0154 (TD S2-051241) is rejected by TSG SA.**

TD S2-051241 23246-CR0154: Combined CR on MBMS Trace and Charging Information. This was introduced by Vodafone. Summary of change: Adds text similar to TS 23.060 for PDP context activation procedure relating to Trace to the MBMS multicast service activation at GPRS level, and adds additional MBMS specific tracing information for use at the BM-SC including standalone messaging to activate BM-SC trace as a result of Routeing Area Updates. Adds parameter transfer of IMEI-SV, RAT Type, User Location Information, MS Time Zone from SGSN to GGSN, and subsequently to the BM-SC where possible along the same principles as those implemented for TS 23.060. IMEI-SV is expected to be used for accounting purposes only. This CR was approved. **It was noted that this CR replaces CR0143 (TD S2-051240) and CR0145 (TD S2-050888 from meeting #45) which will only be submitted to TSG SA if this CR0154 is rejected by TSG SA.**

TD S2-051297 23246-CR0155: Corrections to MBMS. This was introduced by Vodafone. Summary of change:

1) in section 4.2 and 5.7, OSA SCS is removed.
2) in section 6.3 an undefined term is replaced.
3) in 8.1.1 an abbreviation is replaced.
4) in step 1 in section 8.2, text wrongly implies that IMS signalling PDP context can be used for MBMS IP signalling. In step 2 there is reference to a "join" message that does not exist in these RFCs. Step 4b is clarified to apply to the SGSN, not the UE. Text in step 6 and 15 is made mandatory.
5) text in section 8.3 is clarified and BSC behaviour made more exact.
6) a reference to Gmb is added to step 4 of section 8.4.
7) in section 8.5, (because 8.3 permits the SGSN to signal to a BSC even if it has no users) the BSC must acknowledge release when it has no context.
8) in section 8.7 step 9, an incorrect example is corrected.
9) requirements in section 8.8 are clarified.

There was some discussion over the proposed changes and some modifications were needed. The figure change was not shown with revision marks and contained some spurious lines which will need to be removed. The CR was revised to take comments into account in TD S2-051393 which was reviewed. The change bars on the first figure deletion was corrected in TD S2-051416 which was approved.

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TD S2-050993 Progressing work on the Service Identifiers. This was introduced by Ericsson. In SA WG2#45 the contribution S2-050668 "Support of service identifiers" was presented and discussed. The discussion encouraged the progression of work in this topic. An accompanying contribution contains a work-item description for the progression of this work. This contribution attempts to progress the technical work in preparation of the approval of the work item. This was discussed and noted.

TD S2-050994 Discussion on the grouping of public user identities. This was introduced by Ericsson. 3GPP Release 5 and 3GPP Release 6 describes that a number of Public User Identities with the same service profile data can be grouped within the same service profile "Each service profile is associated with one or more public user Identities", however with the current specifications only the HSS and S-CSCF are aware of which public user identities are in the same service profile. This contribution addresses the need of identifying the public user identities associated with the same service profile. This was discussed and it was considered that more off-line discussion should be held and further contributions on the subject brought to the next meeting. This contribution was then noted.

7.1 Access Class Barring and Overload Protection [ACBOP]

There were no specific contributions under this agenda item.

7.2 SMS and MMS over Generic 3GPP IP Access [SMSIP]

TD S2-051160 TR 23.804-110 Support of SMS and MMS over generic 3GPP IP access. This was introduced by the Rapporteur (Huawei). This was approved for use as a basis for further updates of the draft TR.

TD S2-051079 Some conclusions for TR 23.804. This was introduced by Ericsson. A possible solution in TR 23.804 is to use IMS based messaging for SMS and MMS over a generic IP access, which was basically proposed in the Nokia paper TD S2-050644.This paper discusses the proposed Nokia conclusion, some additional interworking aspects between SMS/MMS and IMS based messaging, and also proposes some conclusions on the need for additional IMS based messaging enabler capabilities. It was questioned whether there were any end-to-end impacts on MMS delivery. It was questioned whether this had been considered by SA WG1 and decided against including this. It was clarified that SA WG1 removed it from Rel-6 as there was not time for completion, this is now proposed for Rel-7. Some changes to the terminology were suggested and the proposal was re-drafted in TD S2-051401 which was reviewed and approved.

TD S2-051088 Conclusion. This was provided by Nokia. This contribution attempts to formulate a conclusion and recommendation regarding the mechanism to be used for SMS and MMS over IP. This was covered by discussions on TD S2-051079 and was noted.

There was a discussion on whether the TR is complete enough and whether it should be sent to TSG SA for approval and placing under CR change control. It was clarified that this is a feasibility study TR and does not preclude more features being considered in future work. **It was agreed that the updated TR 23.804 should be sent to TSG SA for approval.**

TD S2-051161 Service authentication in IP-Message-GW. This was introduced by Huawei. The service authentication issue was rose in the last meeting. This discuss paper introduces the service authentication is performed by the IP-Message-GW. It was discussed that the barring method in 8.3 is currently left open and no procedure had been agreed, so it would be best to leave this open for the moment pending further discussions. It was considered better to change authentication to authorisation to overcome this problem. The document was revised in TD S2-051404 which was **left for e-mail approval due to lack of time at the meeting**.

TD S2-051162 Interworking handling in SIP/IMS based Messaging. This was introduced by Huawei. It was discussed the SMSIP is intend to provide an interworking mechanism between SMS/MMS service in the CS/PS domain and the SIP/IMS based Messaging. However, for the UE originating message case, it is unclear when the message shall be handled totally in IMS domain or it shall be forwarded to the traditional CS/PS domain. After some discussion it was decided that more study on these issues were needed and Huawei were asked to elaborate this and bring an updated proposal to the next SA WG2 meeting. The document was noted.

TD S2-051402 Cover Sheet for TR 23.804 V 2.0.0. This was introduced by the SMSIP WI Rapporteur. Because the updated version of the TR (TD S2-051403) was not available, **it was decided to leave this cover sheet and the updated TR for e-mail approval.** (Approved by e-mail 25/05/2005)

7.3 System Enhancements for Fixed Broadband Access to IMS [FBI]

There were no specific contributions under this agenda item. FBI related CRs were dealt with under agenda items related to the specifications they affected.

7.4 IMS and PS Domain Impacts of IMS Emergency Calls

TD S2-051267 TR 23.867 v0.9.0. This was introduced by the Rapporteur (Siemens). This was approved for use for further updates of the TR.

TD S2-050991 Approaches to the handling of location information for emergency services over a fixed broadband access. This was introduced by Ericsson. Discusses the handling of location in the case of an emergency service over fixed broadband access, and proposes one solution. There was an off-line and was revised in TD S2-051365 and again in TD S2-051405 which was reviewed. It was agreed to add an editors note about the format of the location info being for further study and the contribution was revised in TD S2-051420 which was approved.

TD S2-051308 IMS Emergency Sessions: UICC-less procedures (revision of TD S2-051090, source corrected). This was introduced by Nokia. This contribution contains a proposal for the UICC-less procedure for the GPRS access. There were some editorial terminology errors noted. It was commented that the Emergency call attach should be clarified. After some discussions it was decided to revise the document with an off-line drafting session. This was provided in TD S2-051366 and was reviewed. It was agreed to add an editors note about the method for emergency APN being for further study and the contribution was revised in TD S2-051421 which was approved.

TD S2-051309 IMS Emergency Sessions: PDP context modification, deactivation and preservation (revision of TD S2-051091, source corrected). This was introduced by Nokia. This contribution contains a proposal for the missing contents in subchapter PDP Context Modification, PDP Context Deactivation Preservation Functions. This was approved for inclusion in the draft TR.

TD S2-051310 IMS Emergency Sessions: Setting of Follow-on-Request Pending parameter.(revision of TD S2-051092, source corrected). This was introduced by Nokia. This contribution contains a proposal to set Follow-on-Request Pending parameter by the UE to avoid unnecessary delay to emergency session setup. This was approved for inclusion in the draft TR.

TD S2-051094 23271-CR0301: Emergency location information in SGSN. This was introduced by Nokia. Summary of change: The network induced location procedure is enhanced for the PS domain, following the same approach as in the CS domain. It was commented that Step 7 has emergency session release, but there is not emergency session set up - it was asked if this is somewhere else in the protocol. this was not part of the CR and was not known. It was commented that this normative text did not belong in 9.1.7. Such text should be included in the TR. The CR was revised off-line in TD S2-051367 as a Pseudo-CR to draft TR 23.867. There were some issues to solve, which was done off-line and the Pseudo-CR was revised in TD S2-051422 which was **left for e-mail approval due to lack of time at the meeting**.

TD S2-051268 Coversheet for TR 23.867. This was introduced by the Rapporteur (Siemens). It was agreed that the TR will be sent to TSG SA for information and this presentation cover sheet provides an overview of the work and status of the draft. This cover sheet was approved.

7.5 3GPP System Architecture Evolution

TD S2-051244 TR 23.882 v0.1.1. 3GPP System Architecture Evolution. This was introduced by the Rapporteur (Vodafone) which included changes since the last meeting. It was noted the change comments page had not been updated in this version. The draft TR was approved for use as a basis for further updates.

TD S2-050984 Proposal for the Principles of the 3GPP System Architecture Evolution. This was introduced by Orange SA. This document elaborates the considerations and the principles for the design for the evolved 3GPP system architecture for the packet domain and makes a proposal for baseline architecture. The functional requirements for mobile terminals are not covered in this document due to the possible extra complications for the discussion. The details will be provided in a separate contribution. This contribution does not intend to address the detailed functional split between the different network elements which are the subject for future studies. Orange SA proposed that the general principles and the high-level architecture be considered and included in Section 7 "Key Issues" and high-level architecture be included in Section 5 "Requirements on the Architecture" of the draft TR. The new "Packet Service Control Subsystem" in the diagram was questioned for it's intended functionality. It was clarified that the primary idea is for selection and re-selection of access networks. It was further clarified that the "Access Part" is in order for the operator to control the access, including the non-3GPP access. It was believed that this could also be used in the roaming case with appropriate communication between the home and visited networks.

TD S2-051013 Proposed high level architecture. This was introduced by NTT DoCoMo. This contribution proposes high level architecture for 3GPP system architecture evolution, which includes AIPN and Evolved UTRAN. It was clarified that the idea is to have the access interfaces optimised for UTRAN access, but that they should be designed to allow easy access to other (currently unknown) access systems. It was recognised that IMS is excluded from this contribution and it should be made clearer.

TD S2-051093 Baseline Architecture for 3GPP System Evolution Work. This was introduced by Nokia. This paper proposes a high-level target architecture to be used as a base-line in the future. This type of high-level architecture is needed to clarify the tasks for this work item. Moreover it is useful in defining the scope of contributions on this work item. The proposed architecture is high-level and general enough not to preclude any technical solution. It was suggested that the IP-based Services bubble should be split into IP-mobility services and other IP-based services layers.

TD S2-051142 High Level Target Architecture. This was introduced by Ericsson. This contribution proposes a high level architecture diagram to be included to the TR. It was questioned if the intention was to need to redevelop work, such as the work for I-WLAN, for each new non-3GPP access system. It was clarified that this was not the intention. Roaming between GSN+ and new XX accesses was questioned, i.e. how will that be managed by the 3GPP PCRF*? It was commented that this proposal did not seem to be very long-term, and the Work Item scope is for the next 10 years and beyond time frame. Mobility between different accesses was questioned - is it intended to develop new interfaces for each new access? It was clarified that the intention was to cover generic mobility, but the technical implementation was not constrained by this architecture.

TD S2-051188 Directions for 3GPP System Architecture Evolution. This was introduced by Nortel. Proposes guidelines on how to proceed with the overall architecture evolution work. Specifically, this paper proposes:

1) that the work on the Evolved Access System can be done independently from the work on the AIPN concept;
2) that the generic solution for inter-system mobility in the AIPN stratum should be based on Mobile IP;
3) that the generic AIPN inter-system mobility mechanism may serve as a solution to 3GPP WLAN Scenarios 4 and 5.

It was asked how visited and home network distinction is handles in the proposal. It was clarified that the system was separated into several strata and roaming would need to be defined within each stratum (the All-IP stratum is the current architecture, so the roaming functions exist for this). It was commented that Scenario 1 is similar to the Nokia approach and Scenario 2 is similar to the Ericsson approach. Nortel responded that the detail of the proposal was not developed and couldn't easily be compared to the other contributions at this stage. It was questioned how "states" (e.g. session keys) would be moved between the accesses for session continuation. Nortel responded that this would have to be developed in the control part of the system for each access.

TD S2-051260 Considerations for System Architecture Evolution. This was introduced by Nokia. This document discusses some key issues and design principles to be taken into account for System Architecture Evolution work and proposes a simple architecture that fulfil these design principles. It is proposed that the Joint RAN WG2, RAN WG3 & SA WG2 meeting discusses the principles presented in this contribution, and takes the issues into account for the Network Evolution. Furthermore, it is proposed that SA WG2 discusses the key issues listed in section 3 of this contribution, and includes them in section 5 of TR 23.882. There was a concern expressed over the migration possibilities for this proposal, as existing operators will want a migration path to follow to implement the evolved system over some time. It was clarified that in figure 1, although it looked like a roaming case, the whole architecture could be owned by the same operator. It was also clarified that the "Serving Node" is part of the Access Network. It was commented that "Access Network" should be referred to as "Access System" in contributions.

TD S2-051273 Discussion on Architecture Evolution Scenarios. This was introduced by Siemens. This paper describes potential evolution scenarios for 3GPP System Architecture Evolution. The Iu interface and especially Iu-Flexibility introduced mechanisms that allow for full Iu mobility between network entities, at least within a PLMN. Full mobility is also available with Gn mobility. The considerations of evolution scenarios starts with a decomposition of Rel-6 Architecture. The control plane functions are shown as boxes in the figures. The User Plane Functions (UPF) are listed in a table below the UPF-boxes. Revision marks in the tables show how User Plane Functions (UPF) are moved from one entity to another for the different scenarios. The paper describes the possible scenarios that allocate functional blocks to other entities. Protocols are show in the figure merely to identify functionality provided at the reference points. It is not necessarily a proposed protocol selection. However, there might be advantages in reusing existing protocols. The different options of combining existing network entity's functions described in this paper do not consider further potential optimizations by modifying or removing Rel-6 functions, for example. The paper describes advantages and disadvantages and proposes an target architecture for 3GPP system architecture evolution. It was commented that although the contribution was of high quality and detailed, it did not cover issues such as Multi Access and if was questioned whether this had been considered. Also the issues with the New Evolved UTRAN and whether it is envisaged to evolve existing protocols for these new interfaces. Siemens responded that the functionality is shown to be there and the number of entities can be reduced, but the detailed protocol analyses were still needed. It was generally commented that the actual evolution of this proposal was not clear and which evolution requirements were satisfied by the re-grouping of existing functionality was not obvious.

TD S2-051289 Concept for Evolved 3GPP Architecture. This was introduced by Vodafone. Presentation and proposed changes to TR 23.882. Summary of presentation:

Advantages: Migration is easy when it is used for new frequency bands; Provides for existing commercial and regulatory models and does not preclude other business models; Interfaces are, or can be made, simple; Reuses many existing protocols; New Ix interface should be able to be made to be simple.

Potential Issues: Bandwidth efficiency on last mile transmission may need IP header compression; The RRM efficiency of an RNC in every site needs to addressed by the RAN WGs.

It was questioned whether legacy equipment and new evolved architecture could be put on any potential new frequencies. It was explained that either architecture could be used on that and the operator would need to decide which system to use on each frequency available, but the systems should not be mixed on the same frequency. It was clarified that the encryption would terminate in the VPLMN Proxy for the roaming architecture diagram. Vodafone stated also that there was at the moment a real need for SMS support for configuration of UEs and this would be the case until an alternative efficient and convenient method for UE configuration can be demonstrated.

TD S2-051338 Identification of key issues and architectural requirements for 3GPP system evolution (revision of TD S2-051024, TD S2-051311). This was introduced by ETRI. Before discussing the detail impacts of overall architecture about evolution on the basis of "logical baseline architecture for 3GPP" as depicted in a figure in the TR, it is needed to come to an agreement on architectural outline from three standpoints (first: RAN LTE Study Items, second: the work in SA WG1 on an AIPN, third :Supporting mobility between heterogeneous networks). Therefore, this paper describes key issues in current 3GPP architecture and finds out some solutions of them and lists the possible evolution scenarios based on solutions in order to discuss the architectural scope that can be dealt with in TR as well as architectural requirements within the scope. In addition, the architectural requirements related to session and mobility management are proposed. It was commented that this was a very detailed proposal and it would need time for study in order to fully understand the issues involved in the proposal. It was commented that the introduction of new terminology in the text proposal would need to be defined to ensure that the meaning is clear to readers of the proposal.

The SA WG2 Chairman summed up that the contributions had been presented and briefly discussed, and that some of the contributions were very detailed proposals and would need further consideration by Members before agreeing to include them in the draft TR. TD S2-051093 from Nokia could be used as a basis of the level of the appropriate overview, to draft a summary of the discussions and issues raised by the two different architecture proposals which should be considered in the different operators' network deployment scenarios and strategies. The SA WG2 Chairman proposed that some drafting is done off-line. It was argued that the Nortel contribution (TD S2-051188)could also be used as a basis for this drafting and that the level should be a little more detailed than the Nokia contribution. It was considered a useful start to put down 2 extremes of architecture possibilities and to record the issues raised by each architecture for Members to consider for further contribution to meetings. It was also requested that the Mobility Management should be kept separate from the IMS services. A drafting group was formed to create a high level first draft.

Drafting group results:

TD S2-051356 System architecture evolution: Drafting group output from 10 May. This was introduced by the drafting group chairman and contained the results of the drafting group to produce 2 different high-level architecture possibilities representing the spectrum of company input to this meeting.

- Company inputs have been summarized into 2 separate high level architecture figures.
- Key differences between the figures have been identified
- Key issues for further consideration and contributions have been listed
- These results are proposed to be used as input to the SA2-RAN joint session
- No decision whether / how to document this in the TR

It was commented that figure 2 should be made the same level of detail as figure 1 by removing the detailed sub-bullets, except for the sub-bullet under bullet 2, which could be made into a note. It was clarified that QoS was not included because nothing specific had been identified, it was recognised that QoS would need to be considered in the work. These revisions were made and the presentation was revised in TD S2-051357 which was approved for use in the joint meeting on Evolution with RAN WGs. It was agreed that this contribution should be included in the draft TR. The Editor agreed to do this and provided the updated TR in TD S2-051358 which was **left for e-mail approval due to lack of time at the meeting**.

7.6 I-WLAN

TD S2-051288 TR 23.836 v0.1.0. This was introduced by the Rapporteur (Samsung). This was approved as the latest version of the TR to be used for further updates.

TD S2-050986 LCS for I-WLAN. This was introduced by LG Electronics. This contribution studies what kind of impacts are impinged on current LCS architecture to realize OMA SUPL in current LCS architecture and propose a feasible a way to provide location services for subscribers attached to a WLAN. There was currently no work item to cover these aspects so the contribution was noted. LG Electronics were asked to bring a Work Item to SA WG2 if they wish to pursue this proposal.

TD S2-051389 QoS Architecture for 3GPP-WLAN Interworking. This was introduced by ETRI. This contribution describes the framework for End-to-End Quality of Service (QoS) architecture within 3GPP-WLAN Interworking. Some clarification to the terminology used in 5.2.1 was proposed. The figure in 4.2 required correction to clarify an element is for 3GPP IP Access. The contribution was revised in TD S2-051406 which was **left for e-mail approval due to lack of time at the meeting**.

TD S2-051014 IP QoS mechanisms for 3GPP-WLAN Interworking. This was introduced by T-Mobile. The contribution proposes IP QoS mechanisms for 3GPP-WLAN Interworking to be included into TR 23.836. It was commented that this attempts to define QoS mechanisms which go beyond the understood intention of the WI, which should be to investigate what can be done for QoS over WLAN. This proposal looks at the QoS on the whole IP layer. It was also commented that 3GPP Operators will want to differentiate QoS for customers depending on their subscriptions and a mechanism is needed to interface with the IEEE mechanisms. The contribution was revised off-line to incorporate comments in TD S2-051407 which was later withdrawn.

7.7 LCS

TD S2-050987 23271-CR0299: Notification based on current location of target UE. This was introduced by LG Electronics. Summary of change: The notification based on current location of target UE is introduced. The introduction of text for Presence was questioned for it's accuracy on the proposed requirements and the need for it as it will not be supported in the SGSN. After discussion it was agreed that the requirements are correct, but some clarification on the text and also the mechanisms to use to fulfil the requirements needed more study. It was also commented that the proposal will have an impact on the MAP specification. LG Electronics were asked to discuss this off-line and provide a new proposal to the next meeting. The CR was then noted and Members were asked to provide contribution to LG electronics.

TD S2-051025 23271-CR0300: Introducing A-GNSS concept to extend A-GPS to include GALILEO. This was introduced by Orange SA. Summary of change: When mentioned other than as an example of location method, GPS is replaced by GNSS, stating that GNSS can be GPS or GALILEO. It was clarified that the SA WG1 CR cited in this CR, 22.071-CR0071, had been postponed by TSG SA awaiting clarification and public availability of GALILEO specifications. It was reported that RAN WGs intended to keep the GPS-only method for backward compatibility and use of GALILEO would be considered when the corresponding requirements are available. This CR was therefore noted and Orange SA were asked to take comments into account when re-submitting the CR at a future meeting.

TD S2-051155 23271-CR0305: Non-dialable call-back number definition for EU. This was introduced by Ericsson. Summary of change: The format of the non-dialable call-back number in case of emergency call in Europe is defined to be 112 plus the seven last digits of IMEI, when this is transferred via MAP parameter MSISDN, or 112 plus the full IMEI, when this is transferred via ISUP calling party number parameter in IAM message. The use of "Europe", or "EU" was questioned and the scope of the requirements should be verified. The risk of the "non-dialable call-back number" being interpreted as a USA number by equipment and the use of last 7-digits of the IMEI, which may be common for many manufacturers IMEI numbering schemes should be analysed. This CR was noted at this time for off-line discussion and elaboration.

TD S2-051156 23271-CR0306: MT-LR without HLR query - appropriate clarifications for EU. This was introduced by Ericsson. Summary of change: According to ETSI Special Report SR 002 180, all networks should transmit their network identification to the emergency control centre in a standardized way. This CR gives clarifications regarding the correlation information that PSAP uses to identify the serving node are needed. That kind of information is already there for the North America 911 calls, but is missing for the EU 112 case. It was clarified that either the MSC or SGSN identity would be passed in the mechanism (not both). It was also reported that the use of the MSISDN number is a string of digits and this could have an impact on ETSI TISPAN work. It was suggested that the "/SGSN" in the parenthesis in 9.1.3 should be removed to eliminate the confusion oand use only the MSC number. The CR was revised in TD S2-051335 which was **left for e-mail approval due to lack of time at the meeting**.

TD S2-051157 23271-CR0307: NI-LR - appropriate clarifications for EU. This was introduced by Ericsson. Summary of change: The existing signalling with MAP Subscriber Location Report is used, where lcsClientExternalID carries the identity of the Emergency LCS Client that is connected through the emergency call in Europe. This CR also gives clarifications regarding the correlation information that PSAP uses to identify the serving node. "/SGSN" should again be removed from the change in 9.1.5.1, step 3, in line with comments to TD S2-051156. It was commented that the change in step 3 was out of scope of the CR Reason for change. The reason for change was updated to include this. It was also proposed to remove the change in 7.1.2 as it was not relevant for this reporting. This was agreed and the CR was revised in TD S2-051336 which was **left for e-mail approval due to lack of time at the meeting**.

TD S2-051242 23271-CR0308: Missing definition of the abbreviation for RTT. This was introduced by the Rapporteur of TS 23.271 (Vodafone). Summary of change: The expansion of RTT is added. This CR was approved.

7.8 Selective Disabling

TD S2-051245 TR 23.805 v0.1.0. Selective Disabling of UE Capabilities. This was introduced by the Rapporteur (Vodafone) and provided the latest version of the draft TR. This was approved for use for further updates.

TD S2-051146 OMA DM and 3GPP Selective Disabling co-ordination. This was introduced by RIM. This contribution promotes the use of OMA DM and coordination of the Selective Disabling feature with OMA DM. It was suggested that the message could be included in the de-registration message (LLM layer), rather than a separate

SMS in case there are a large number of mobiles which need to be disabled (e.g. due to a virus causing erroneous operation and network disruption). A mechanism which cannot be deliberately or inadvertently bypassed by a downloaded application needs also to be developed. The issues of different elements re-enabling disabled features also needs further study to prevent this undesirable effect. This subject should be considered further by members and contributions and proposals can be brought to the next SA WG2 meeting. The contribution was then noted.

TD S2-051147 Selective Disabling Scaling Requirement. This was introduced by RIM. The Selective Disabling feature must be able to scale to handle 100,000s of simultaneously misbehaving UEs. It was asked whether any detection mechanism had been considered to determine misbehaving UEs. It was clarified that there had been some study on this but no mechanisms are yet agreed. After some discussion it was agreed to consider this off line and to revise the contribution in TD S2-051333 which was reviewed. The placement of the text was questioned, the shall should be replaced with should and the additional "to" should be removed. This was done in TD S2-051395 which was **left for e-mail approval due to lack of time at the meeting**.

8 Drafting groups during the week

8.1 Evolution of Policy Control and Charging [PCC]/IP Flow Based Bearer Level Charging [CH-FBC]

TD S2-051380 REPORT, PCC and FBC Drafting Session. This was introduced by the PCC Rapporteur (Balazs Bertenyi). The drafting group was chaired by Balazs Bertenyi (Nokia) and has been held on Thursday morning. The drafting group was attended by 18 participants (See Annex A). The drafting group reviewed all input contributions on Rel-6 Flow-Based Charging and Rel-7 Policy Control and Charging. Regarding PCC, taken into account the progress made on TR 23.803, the drafting group agreed to propose sending the TR for information to the upcoming TSG SA.

Agreed documents to be approved by SA WG2:

TD S2-051375 Authorization Token based binding (Siemens). This was agreed in the PCC and FBC Drafting Session and was approved by SA WG2.

TD S2-051376 TFT based binding for uplink IP flows (Siemens). This was agreed in the PCC and FBC Drafting Session and was approved by SA WG2.

TD S2-051378 Update to UE IP Address and TFT based binding mechanism (Vodafone). This was agreed in the PCC and FBC Drafting Session and was approved by SA WG2.

TD S2-051373 Signalling Flows for Bearer Service Establishment, Modification and Termination (Nokia). This was agreed in the PCC and FBC Drafting Session. Some typographical errors and Capitalisation problems were noted and the document was corrected in TD S2-051424 which was approved by SA WG2.

TD S2-051374 SPR (Nokia). This was agreed in the PCC and FBC Drafting Session. It was noted that TR number should be 23.803 and the document was approved by SA WG2.

Open documents to be handled by SA WG2:

TD S2-051369 23125 CR0129 R1: OCS initiated bearer removal. This was introduced by Siemens. Summary of change: A new section is added describing the dependencies between the FBC functionality and the related bearer service. The statement about a dependency on the termination actions is deleted. Instead, it is clarified that the OCS shall be able to initiate a bearer removal. Finally, a new message flow for a TPF initiated bearer removal is added. This CR was approved.

TD S2-051370 Draft LS on Credit Management. This was introduced by Ericsson. SA WG2 asks SA WG5 group to give feedback to SA WG2 on including the option "It shall be possible for the TPF to support credit management on a per IP network connection basis" in TS 23.125. The first sentence was changed and host information added for the future meetings, draft was removed and the LS revised in TD S2-051423 which was approved.

TD S2-051371 Charging and policy control requirements. This was introduced by Ericsson. This contribution discusses and proposes some requirements tailored for the PCRF and the GW. This was approved.

TD S2-051372 PCRF description. This was introduced by Ericsson. This contribution proposes to expand the description of the PCRF functional element regarding handling of QoS policy in the interface with the AF and in the interface with the GW. This was approved.

TD S2-051377 TFT filter based binding. This was introduced by Ericsson. It is proposed to include changes in the TR 23.803. This was approved.

TD S2-051381 Cover sheet for TR 23.803 to TSG SA for information. This was approved to send with the latest version of the TR to TSG SA for information.

TD S2-051379 TR 23.803 to TSG SA for information. It was agreed that **the updated TR will be approved by e-mail after the meeting**.

The PCC and FBC Drafting Session Rapporteur was thanked for his report and delegates for their hard work at the drafting session and the report in TD S2-051380 was approved.

8.2 E2E QoS [E2EQoS]

TD S2-051105 E2E QoS session report. This was introduced by the E2E Session Chairman. The report was approved.

The following documents were agreed by the drafting group and need to be approved by SA WG2 plenary:

TD S2-051027 Clarification of procedures for the on-path model (Ericsson). This was agreed by the drafting group and was approved by SA WG2.

TD S2-051029 Re-use of existing IP-CAN's QoS mechanisms (Ericsson). This was agreed by the drafting group and was approved by SA WG2.

TD S2-051032 E2E QoS Interworking (Cisco). This was agreed by the drafting group and was approved by SA WG2.

TD S2-051107 Cleanup of references - updated (Huawei). This was agreed by the drafting group and was approved by SA WG2.

TD S2-051117 Core Admission Control (Cisco). This was agreed by the drafting group and was approved by SA WG2.

TD S2-051122 State of the Art (Cisco Systems). This was agreed by the drafting group and was approved by SA WG2.

The following revised documents were not reviewed by the drafting group and need to be reviewed by SA WG2 plenary or handled via the e-mail approval process:

TD S2-051108 E2E QoS: General Requirements. This was introduced by Nortel. This paper proposes changes to clause 4.2 of TR 23.802 to expand the general requirements of the feasibility study to cover the dynamic checking of and reaction to congestion/QoS status of IP backbone routes. It was clarified that the text states this is an example and not for all cases. The document was revised in TD S2-051426 which was approved

TD S2-051109 E2E QoS: IP networks without QoS signalling. This was introduced by Nortel. This paper proposes adds some text to the IP networks without QoS signalling connection model to include Diffserv service class based SLAs. This was reviewed and approved.

TD S2-051110 E2E QoS: Issues of connection models. This was introduced by Nortel Networks. This paper proposes to add text to the type of information to be exchanged section in order to cover the feedback based call admission control mechanisms. These mechanisms need to convey appropriate QoS information to describe the current network QoS condition along the bearer path. The bullet in 5.3.1 was moved to the end of the list and final sentence deleted from it. The contribution was revised in TD S2-051427 which was approved

TD S2-051111 Clarification of characteristics of feedback based solution. This was introduced by Ericsson on behalf of Ericsson and Nortel. Some modifications were needed so the contribution was revised in TD S2-051428 which will be sent **for e-mail approval after the meeting**.

TD S2-051115 Description on information in PDF after negotiation. This was introduced by ZTE. This contribution lists the information stored in the PDF after the bearer has established. The information may be adapted to different connection modes described in the draft. This was reviewed and approved.

TD S2-051116 Impact Analysis of the End-to-End QoS Solutions. This was withdrawn by Orange SA.

TD S2-051119 Conclusion for the TR23.802. This was introduced by Huawei on behalf of Huawei and NEC. There were concerns in the drafting group about drawing conclusions this early in the study and further discussion is needed before declaring what is feasible. The contribution was noted.

TD S2-051120 IMS complex in the E2E QoS interconnection models. This was introduced by Ericsson. The present study for E2E QoS is investigating possible solutions to enhance the end-to-end QoS architecture as specified in 3GPP TS 23.207 to achieve improved end-to-end QoS in the case of interworking with IP network domains or backbone networks that provide IP QoS mechanisms and enhanced interworking with other next generation networks. There was an objection to the figure showing the Signalling and Media going through the same Border GW. After some discussion it was decided that a note should be added to clarify this is not necessarily the case. The contribution was revised in TD S2-051430 **for e-mail approval after the meeting**.

TD S2-051121 Importance of QoS signalling. This was introduced by Siemens. This contribution proposes a new section to highlight the importance of QoS signalling for the provision of end-to-end QoS especially for a general connection model in which the backbone IP network is not owned or managed by the PLMN operators of the IP-CANs. There was an objection to the title of section 5.3.2 as "Importance" is inappropriate for some uses. Changes to the first paragraph for clarification were also requested. The contribution was revised in TD S2-051431 **for e-mail approval after the meeting**.

Other documents:

TD S2-051123 Draft cover sheet for presentation of TR 23.802 to TSG-SA "for information". This was introduced by the Rapporteur. This cover sheet was approved to be used for presentation of the draft TR to TSG SA for information.

TD S2-051124 This document number has been reserved for the next revision of TR 23.802 (v0.6.0). It will be made available once all E2EQoS contributions have been handled in SA WG2 plenary or via the e-mail approval process. This will be sent **for e-mail approval after the meeting**. (Approved by e-mail 25/05/2005)

8.3 Combining CS bearers with IMS [CSI]

TD S2-051322 CSI Meeting Agenda. This was provided by the CSI Chairman and had been agreed by the drafting group. It was noted by SA WG2.

TD S2-051331 CSI Draft session report. This was introduced by the CSI Chairman. Some errors were noted in document numbers, so the report was updated and revised in TD S2-051336 which was approved.

TD S2-051081 Usage of media set to 'inactive'. This was provided by Ericsson and was approved in the CSI drafting group session.

TD S2-051299 Correction to message flow diagram. This was provided by Vodafone and was approved in the CSI drafting group session.

TD S2-051327 Requirement to associate CS call with SIP requests that does not establish dialogs. This was provided by Ericsson and was approved in the CSI drafting group session.

TD S2-051329 General amendments. This was provided by Nokia and was approved in the CSI drafting group session.

TD S2-051343 Registering Terminal's CSI Capability. This was introduced by Motorola. TS 23.228 allows a mobile to indicate its User Agent Capabilities when it registers with the IMS core. A CSI capable mobile may register its CSI related UE capability to support CS video telephony and/or support CS voice during registration. In the case of multiple device registration for the same public identity, registering these capabilities, could help the core IMS network in selection of devices to fork INVITE and OPTION messages to if the caller has indicated preference for CSI capability in these messages. For example, if the OPTIONS request from UE-A contains CSI capability indication, the IMS core can sequentially fork the OPTIONS request first to that device of user B that has registered

its CSI capability. Huawei objected to this because they have concerns about the open issues on the assumptions and think this will not be helpful guidance to CT WG1. More study on the assumptions needs to be done before providing guidance to CT WG1. It was argued that registering the CS video and CS voice capabilities will not ensure the communication can be set up. **There was no other objections, so the contribution was approved and the Huawei objection was noted.**

TD S2-051345 This was withdrawn as it did not contain the latest version of the TR.

TD S2-051347 UE capability exchange. This was provided by Ericsson and was approved in the CSI drafting group session.

TD S2-051257 CSI: TR 23.899 v1.1.0. Latest draft of the TR. This was approved in the CSI drafting group session.

TD S2-051283 Use cases of CSI. This was provided by Samsung and was approved in the CSI drafting group session.

TD S2-051286 Correction for unimplemented text proposals of TR23.899. This was provided by Samsung and was approved in the CSI drafting group session.

TD S2-051330 Routing method for alternative C. This was provided by Samsung and was approved in the CSI drafting group session.

TD S2-051348 Clarification on alternative D. This was provided by Samsung and was approved in the CSI drafting group session.

TD S2-051326 CSI completion – Scope and Handling of Multiple Devices per customer (revision of TD S2-051298). This was introduced by Vodafone It was clarified that the proposal in 7.4 was to cover the common case of when the user has multiple terminals and regularly switches between terminals with the same USIM in order to provide network efficiency. After some discussion it was agreed to insert this under section 4 instead. The contribution was revised in TD S2-051432 which was approved.

TD S2-051342 Draft LS to SA WG4, copied to CT WG1 on Capability exchange. This was introduced by Ericsson. SA WG2 asks SA WG4 to describe a set of guidelines to be used for CSI in order to clarify that certain combinations of applications, media types and formats being used simultaneously is not required to be supported by the UE. The LS was reviewed and revised, to correct the action and to copy the LS to SA WG1, in TD S2-051433 which was **left for e-mail approval due to lack of time at the meeting**.

TD S2-051344 Cover Sheet for TS 23.279 V 1.2.0. This was introduced by the CSI Rapporteur. The present document provides architectural details to combine CS and IMS services for using them in parallel between the same two users. The document provides a description of how capabilities and identities are exchanged to enable the combination of CS and IMS services between the same two users. In the changes since last presentation section, the issue "Section 7.4: Multiple Device Issue in relation to cache information on a UE" had not been fully resolved, so it was moved into the open issues section. The cover sheet was revised in TD S2-051434 which was approved.

TD S2-051346 This should have been the draft TS, but only had a copy of the cover sheet, so the TS will be provided in TD S2-051435 and will be sent **for e-mail approval after the meeting**.

8.4 Service Continuity (IMS<->CS)

TD S2-051247 Service Continuity Drafting Meeting Report. This was introduced by the Service Continuity Chairman (Lucent). The drafting group met on Tuesday and Wednesday morning and also for a final two hours on Thursday night. There were early starts and late finishes and the time and effort put in by all delegates is very much appreciated. There were between 30 and 40 delegates attending. It was commented that the request for allocated time at the next SA WG2 meeting was optimistic, and a request was made to do whatever possible to avoid clashes with other parallel sessions. The SA WG2 Chairman agreed that it will not be realistic to allocate this amount of time, given that there are 3 half-day joint meetings with RAN WGs on Long Term Evolution at the next meeting. A possibility of holding an ad-hoc meeting was raised and this will be considered. It was also proposed to have an "official" e-mail discussion with a convenor to provide a summary document of discussions to the next meeting.

The draft TR was proposed by some Members to be sent to TSG SA for information. The Rapporteur agreed to create a TR presentation cover sheet which was allocated to TD S2-051441 **which will be sent for e-mail approval.** The updated draft TR will be sent to the SA WG2 e-mail list for review and a final version sent to the SA WG2 Chairman and Secretary for presentation to TSG SA for information.

The report of the meeting was revised with corrections noted during the review in TD S2-051442 which was approved.

The following 30 documents were agreed by the drafting group:

TD S2-051198 VCC Drafting Session Agenda (Lucent Technologies). This had been approved by the Service Continuity drafting group and was noted by SA WG2.

TD S2-051042 Anchored Call Control Model: 6.X.4 Origination. (Bridgeport Networks, LG Electronics, Motorola). This was approved by the Service Continuity drafting group.

TD S2-051073 CIVCS Dynamic CS Anchoring Using ECT (Nortel, Lucent, Nokia). This was approved by the Service Continuity drafting group.

TD S2-051129 TR 23.806 (Rapporteur, Lucent). This was approved by the Service Continuity drafting group.

TD S2-051130 Service Continuity TR Restructure (Motorola, Lucent, Nortel, Cingular, Nokia, Siemens, Bridgeport, Huawei, SBC, TeliaSonera). This was approved by the Service Continuity drafting group.

TD S2-051192 Voice Call Continuity – Operator Scenarios (Ericsson). This was approved by the Service Continuity drafting group.

TD S2-051193 Reference Architecture Model (Motorola). This was approved by the Service Continuity drafting group.

TD S2-051200 CIVCS - Supplementary Service Support (Nortel, Lucent, Huawei). This was approved by the Service Continuity drafting group.

TD S2-051201 CIVCS Static Anchoring for CS and IMS (Nortel, Lucent, Huawei). This was approved by the Service Continuity drafting group.

TD S2-051202 CIVCS Dynamic CS Anchoring Using a New CS Service (Nortel). This was approved by the Service Continuity drafting group.

TD S2-051204 Anchored Call Control Model: 6.x.1 General Description (Bridgeport Networks, LG Electronics, Motorola, Siemens). This was approved by the Service Continuity drafting group.

TD S2-051205 Anchored Call Control Model: Registration (Bridgeport Networks, LG Electronics, Motorola). This was approved by the Service Continuity drafting group.

TD S2-051206 Anchored Call Control Model: CS 2 IMS Handover. (Bridgeport Networks, LG Electronics, Motorola). This was approved by the Service Continuity drafting group.

TD S2-051207 Anchored Call Control Model: IMS 2 CS Handover (Bridgeport Networks, LG Electronics, Motorola). The editors notes under 6.x.6.4 were incorrect and needed changing. The changes were made in TD S2-051440 **and will be sent on e-mail approval.**

TD S2-051208 Architectural Alternatives for CS to IMS Voice Call Continuity, MS assisted using ECT (Ericsson, Nokia). This was approved by the Service Continuity drafting group.

TD S2-051209 Architectural Alternatives for IMS to CS Voice Call Continuity, Anchoring model (Ericsson, Nokia). It was commented that "SS" should be replaced by "Supplementary Services". This should be taken into account by the editor. This was then approved.

TD S2-051210 Architectural Alternatives for CS - IMS Voice Call Continuity based on Anchoring and Mobility Management Function (Nokia). This was approved.

TD S2-051211 Architecture, Registration and Roaming (Siemens, Bridgeport Networks). This was approved.

TD S2-051212 Terminating Calls (Siemens, Bridgeport Networks). This was approved.

TD S2-051213 GSM/UMTS to IMS Handover Scenario (Siemens, Bridgeport Networks). It was commented that the editors' note does not reflect the comment made at the drafting session. The editor responded that he thought the note took the comment into account. The note was updated and the document revised in TD S2-051439 which was approved.

TD S2-051215 Architectural Alternative for CS-IMS Voice Call Continuity Based on IMS Control (Nortel, Lucent, Huawei). This was approved.

TD S2-051216 IMS to GSM/UMTS Handover Scenario (Siemens, Bridgeport Networks). This was approved.

TD S2-051217 Service Continuity - Network Domain Selection (Ericsson). This was approved.

TD S2-051218 Not available so **will be sent for e-mail approval**.

TD S2-051219 Inter Domain Routing Control proposal for VCC (Huawei, China Mobile). This was approved.

TD S2-051220 Anchored Call Control Model: Termination (Bridgeport Networks, LG Electronics, Motorola). This was approved.

TD S2-051246 Service Continuity Drafting Meeting Agenda (Lucent). This was approved.

TD S2-051248 Move QoS Architectural Requirement into Basic Assumptions (Lucent). This was approved.

TD S2-051264 Originating Calls (Bridgeport Networks Siemens). This was approved.

The following revised contributions were not reviewed by the drafting group and need to be reviewed by SA WG2 plenary or handled via the e-mail approval process:

TD S2-051214 AS discovery for IMS based Handover. This was introduced by Huawei on behalf of Huawei and Nortel. At the last S2#44 meeting, new WID (S2-050495) for Voice Call Continuity between CS and IMS (including I-WLAN) was approved. This contribution proposes text to be included in section 6.x of the new TR. This contribution was reviewed and approved.

TD S2-051190 Rearrangement of the architectural Requirements. This was introduced by ZTE corporation. This contribution was reviewed and approved.

TD S2-051191 Discussion on Operator Control Requirements. This was introduced by China Mobile. Operator control requirements for service continuity shall be stated clearly in the TR. There was some objection to this and further development and justification of this idea was needed. The contribution was noted.

TD S2-051194 CS to IMS handover based on HOAS. This was introduced by ZTE Corporation. In document TD S2-051022 we introduce a new functionality HOAS (HandOver Application Server) to solve the voice continuity between the IMS and CS domain. This document proposes the handover procedure from CS domain to IMS based on the HOAS functionality. This contribution was reviewed and approved. TD S2-051022 was noted as a background discussion document to this contribution.

TD S2-051196 General description of IMS controlled Handover models. This was introduced by Huawei on behalf of Huawei, Nortel and China Mobile. This contribution was reviewed and approved.

TD S2-051203 Rearrangement of the architecture requirements. This was introduced by ZTE. At the last SA WG2#45 meeting, the architectural requirements of Service Continuity are agreed. This contribution proposes to rearrange the architectural requirements. This contribution was reviewed and approved.

The following contributions were not reviewed by the drafting group and were postponed to the next meeting Contributors should request new document numbers and submit their contributions to the next meeting:

TD S2-051031 E2E QoS State of the art (Cisco).

TD S2-051037 Criteria for evaluating voice call continuity architecture solution (Motorola, Nortel, Lucent, SBC, Cingular, LG Electronics, BridgePort).

TD S2-051063 IMS to CS handover based on HOAS (ZTE).

TD S2-051075 CS-IMS Voice Continuity ECT Evaluation (Nortel).

TD S2-051104 Anchored Call Control Model: Impact on Supplementary Services (Motorola).

TD S2-051195 This document was not provided to the SA WG2 meeting, but was marked as postponed on the drafting group report.

9 Project Planning and Management

9.1 New and revised Work Items

TD S2-050992 WID on IMS Communication Service Identifier. This was introduced by Ericsson. Proposed a work item for the service identifier work. The objective of this work item is to identify the architectural requirements and technical procedures as well as the administrative procedures for a communication service identifier. This includes at least the following aspects: A frame work description for the communication service identifier that describes the format of the identifier as well a means to transport it in various SIP methods; identifying the architectural requirements for a communication service identifier; and identify the administrative procedures for a communication service identifier. The administrative procedures should allow other standardisation bodies, as well as private organisations to be able to obtain an unique communication service identifier. An example of the use of this was given as Push To Talk. Some clarification on the scope and objectives of the proposal and separation of the SA WG2 work from other WG responsibilities was needed. Additional Supporting companies was also required. The WID was re-drafted in TD S2-051315 which was reviewed and it was noted that Telia should be corrected and the TR number corrected to 23.8yz. The timescales should also be shifted to allow one more TSG meeting cycle, in line with the related WID in TD S2-051316. The WID was revised in TD S2-051444 which was approved.

TD S2-051008 WID on MBMS Enhancements. This was introduced by China Mobile. The objective of this work item is to study necessary enhancements of MBMS architecture and procedures so that the MBMS functionality can work better. It was clarified that the QoS aspects extend beyond a bit-rate enhancement. It was recognised that the SA WG1 WID agreed by SA WG1 needs only to be approved by TSG SA and this would need to be reflected in the architecture with what was thought to be minor changes. It was suggested that the SA WG1 requirements should be awaited before starting SA WG2 work (e.g. 2 meeting cycles). China Mobile responded that some of the objectives could be started in SA WG2 in parallel with SA WG1 in order to speed up completion of the work. This was discussed off-line and China Mobile reported that there was no foreseen conflict with the SA WG1 requirements work if SA WG2 start work on this in parallel, particularly for the independent objectives, and for some of the common objectives. A compromise proposal was made in order to reduce the time spent discussing this proposal at SA WG2 meetings, for the supporting companies bring discussion papers on the subject to the meetings in order for other Members to better understand the need for such a Work Item in SA WG2 at the moment. China Mobile preferred to have a TR to collect company views and issues on MBMS enhancements. **SA WG2 agreed to allow discussion for MBMS under the Rel-7 agenda item to include discussion papers which clarify the problems and issues that are intended to be resolved.** This WID was then noted.

TD S2-051178 Interaction between voice call continuity and telephony service for IMS. This was introduced by Orange. At the last SA WG1 meeting, a new WID "Multimedia Telephony Capabilities for IMS with Wireless access" was agreed. The objective is to define the capabilities and supplementary services to offer a real Multimedia Telephony service in IMS. From Orange perspective, there is a clear interaction between this new Work Item and the "Voice Call Continuity between CS and IMS" Work Item that has just started in SA WG2. It was commented that the VCC WI does not intend to define Supplementary Services but looks at the impacts on Supplementary Services when activation VCC procedures. It was agreed that a link to the SA WG1 MM work should be inserted in the WID in TD S2-051179 in order to track the times, but that the timescales are not adjusted in the WID until the work in SA WG1 has been evaluated.

TD S2-051179 Change of WID completion dates. This was introduced by Orange. This work item studies and intends to implement the necessary enhancements to 3GPP systems so that real-time voice call can be offered seamlessly between the CS Domain and the WLAN interworking with IMS architecture. This will be accomplished through the development of a Technical Report (feasibility study) that will lead to the development of a Technical Specification that defines this functionality as a standard 3GPP feature. This was revised to add a link to the SA WG1 work item (but not modify the timescales at this time) in TD S2-051317 which was reviewed. There were some concerns about the note indicating that this was linked and dependant upon completion of the SA WG1 Work Item on defining requirements for Multimedia Telephony Capabilities for IMS. It was agreed to remove the modifications in section 10 and the temporary text in section 13. The TR number and title for VCC needed correcting. The timescales were reviewed and it was reported that these dates were expected, depending on what happens for consensus on options at the future meetings. There were some objections that the timescales were not realistic and there was a request to make a more accurate estimate for completion. It was decided to remove the dates for the TS. These changes were included in an update to the WID in TD S2-051446 which was approved.

TD S2-051139 WID on radio bearer optimisation for VoIMS over dedicated channel. This was introduced by Alcatel on behalf of Nortel Networks, Samsung and Alcatel. WI proposal to study radio bearer optimisation for VoIMS over dedicated channels. Two radio optimization methods have been identified to provide radio optimisation for VoIMS bearer transfer over dedicated channel with an overall architecture impact: Unequal Error Protection (UEP) and Header Removal (HR). With the information currently available in RNC, RNC cannot use these optimisation methods, more study is then needed to describe which additional information are needed by RNC and how these information can be provided to RNC. The objective of the Work Item is to describe architecture impact of introduction of these two methods in order to determine impacts in the current specifications. It was commented that this should be clarified to be a feasibility study and any output a TR in the 8xx-series and, as such, will have no impact on the specifications. The use of shared channels should also be included in the study so dedicated channel optimisation and the optimisation using shared channels should be studied. The WI was elaborated off-line to include the comments in TD S2-051316 which was reviewed. NEC asked to be added to the list of supporting Members. The timescales to be ready for information in September 2005 and approval in December 2005 were questioned. Alcatel responded that they thought this was realistic, based on the previous related Work Item progress. It was suggested that both this and the previous related Work Item (TD S2-051315) should be extended by a TSG Meeting cycle and there was some support for this, in order to provide a more achievable completion date. It was also agreed that the title of the TR deliverable should be changed to "TR 23.8xx, FS of enhancement of radio performance for VoIMS". RAN WG2 was removed from the secondary responsibility. The WID was revised to take these comments into account in TD S2-051445 which was approved.

9.2 Review of the 3GPP Work Plan

TD S2-051443 Proposed updates to the SA WG2 Work Plan. This was elaborated in an evening Work Planning session by the SA WG2 Chairman, Secretary and Rapporteurs. Due to the lack of network at the meeting, this could not be handled easily, so it was agreed that it will be distributed over e-mail by Chairman for comments.

10 Outgoing LSs

TD S2-051398 Draft LS on enhancement of radio for VoIMS. This was introduced by Alcatel. SA WG2 inform RAN WG2 and RAN WG3 that a new Release 7 WID has been agreed in SA WG2 for the study of architecture impacts to allow provision to RNC of information needed to support Unequal Error Protection (UEP) and Header Removal (HR) radio optimisation methods for VoIMS service. Some editorial corrections to the Release, meeting dates and a WID attachment (TD S2-051445) included in s2 included in TD S2-051449 which was approved.

TD S2-051438 Draft LS on handling of non-dialable call back number. There was an objection to asking TISPAN to insert text in their specification when there is no European mandate to do this at the moment. The LS was therefore noted at this time.

11 AOB and Postponed Issues

11.1 Review of Future Meetings

TD S2-051368 Proposed meeting schedule for 2005. This was introduced by the SA WG2 Chairman. The following meetings are planned:

SA2#47 27 June-1 July, NA (Joint Sessions with RAN WG3). Joint meeting with ETSI AT-F, 11 July (pm), Sophia Antipolis. (SMS/MMS over IP) Joint Meeting with TISPAN and CT WG1, 12-13 July, Sophia Antipolis. (Fixed BB Access contributions on 3GPP specifications). Joint Meeting with CT WG1, 14 July, Sophia Antipolis. (CSI and any outstanding FBI CRs to be discussed/edited)

Joint meeting with RAN WGs, 1- 2 September, London SA2#48 5-9 September, Sophia Antipolis Joint meeting with RAN WGs 19 - 20 September, Tallinn SA2#49 7-11 November, Asia NOTE 1: SA WG2 delegates are encouraged to participate in the RAN LTE JM 30-31 May but it is not an official JM including SA WG2.

It was clarified that there is only 3GPP document and CR approval possible on 11 July with ETSI AT-F. With TISPAN, 12 and 13 July, TS 23.228 CRs can be agreed (and probably 24.229 CT WG1 CRs). No SA WG2 modifications will be made at 14 July meeting with CT WG1, any identified changes will be input to the SA WG2#48 meeting.

This list of meetings was noted.

It was reported, that for the RAN ITU-R documents submission, no comments had been received over the e-mail reflector from SA WG2 Members, so it was considered that the intended submission from TSG RAN on behalf of 3GPP was endorsed by SA WG3.

12 Close of the Meeting

Chairman thanked the hosts, the European friends of 3GPP for the meeting arrangements, the delegates for their hard work and the convenors of the drafting sessions and their attendees for their co-operation and hard work in demanding early morning and late night sessions. He thanked the Secretary, Mr. M. Pope, MCC, for taking the minutes of this meeting and of the joint session with RAN WGs. He then closed the meeting.

E-MAIL DEADLINES:
CRs and LSs: Friday 20 May 2005, (approved or rejected, depending on comments).
TSs and TRs: Distribution of all documents by Friday 20 May 2005. Comments to be received by Wednesday 25 May 2005.

Annex A: Summary of Output

A.1 Approved Work Items

TD number	Title	Supporting Members
S2-051444	WID on IMS Communication Service Identifier	1) Ericsson 2) Nokia 3) Cingular 4) Samsung 5) TeliaSonera
S2-051445	WID on Feasibility study of enhancement of radio performance for VoIMS	1) Nortel Networks 2) Orange 3) Samsung 4) Alcatel 5) Lucent Technologies 6) NEC
S2-051452	WID on Voice call continuity between CS and IMS (incl. I-WLAN)	1) Cingular Wireless 2) SBC Communications 3) Lucent 4) Nokia 5) Siemens 6) Ericsson 7) Motorola 8) Nortel 9) Huawei 10) Azaire Networks 11) Samsung 12) China Mobile 13) ZTE 14) NEC 15) TeliaSonera 16) LG Electronics

A.2 Liaison Statements

The following LSs were approved by SA WG2 and sent to the corresponding groups by MCC.

TD number	Title	Attachments	TO	CC
S2-051411	LS on Definition of Public Service Identities.	S2-050988	**TSG CT, CT WG4**	**-**
S2-051414	Reply LS of Detecting the start of a WLAN Direct IP Access session based on Wa/Wd Accounting Messages	S2-051353	**SA WG3**	**SA WG5**
S2-051423	LS on Credit Management	-	**SA WG5**	**-**
S2-051447	Reply LS (to C4-050879) for clarification of SA2 requirement on Presence	-	**CT WG4**	**TSG CT, SA WG1**
S2-051448	LS reply on NAS actions in support of MBMS Reception	-	**RAN WG2, CT WG1**	**SA WG1, RAN WG3, GERAN WG2**
S2-051449	LS on enhancement of radio for VoIMS	S2-051445	**RAN WG2, RAN WG3**	**-**

The following LSs were for e-mail approval by SA WG2 after the meeting:

TD number	Title	Attachments	TO	CC
S2-051361 -> not approved	Draft Reply LS on clarification for Public Service Identity (not approved)	-	**CT WG4, CT WG1**	**-**
S2-051433 approved -> S2-051460	Draft LS to SA WG4, copied to CT WG1, SA WG1 on Capability exchange	S2-051435 (CSI TS 23.279)	**SA WG4**	**CT WG1, SA WG1**

A.3 TRs / TSs

TO BE ADDED AFTER TS/TR E-MAIL APPROVAL DEADLINE

The following updated draft TSs and TRs were provided to the meeting. The latest versions should be used as a basis for further changes:

TD No	Description	TS/TR	Vers.	Rel	Comment

A.4 Change Requests

The following CRs were dealt with at meetings #45 and #46 (or by e-mail approval after the meetings):

Spec	CR#	Rev	Rel	Subject	Cat	Vers	Source	Mtg #	Doc-2nd-Level	Status-2nd-Level	WI
23.002	0154	-	Rel-6	Missing MBMS Architecture entities	F	6.7.0	Vodafone	45	S2-050588	agreed	MBMS
23.002	0155	-	Rel-7	Naming of the IP multimedia functionality of the HSS	F	6.7.0	Orange	45	S2-050688	postponed	FBI
23.002	0156	-	Rel-6	Addition of Flow Based Charging architecture	F	6.7.0	Siemens	46	S2-051276	revised	CH-FBC
23.002	0156	1	Rel-6	Addition of Flow Based Charging architecture	F	6.7.0	Siemens	46	S2-051332	agreed	CH-FBC
23.060	0527	-	Rel-6	Activation of secondary PDP context without TFT	F	6.8.0	Siemens	45	S2-050725	revised	TEI6
23.060	0527	1	Rel-6	Activation of secondary PDP context without TFT	F	6.8.0	Siemens	45	S2-050800	revised	TEI6
23.060	0527	2	Rel-6	Activation of secondary PDP context without TFT	F	6.8.0	Siemens	46	S2-051274	agreed	TEI6
23.107	0154	2	Rel-6	RAB Allocation/Retention Priority	F	6.2.0	Siemens	45	S2-050727	agreed	TEI6
23.107	0156	-	Rel-6	Addition of GERAN to the scope section	F	6.2.0	Siemens	45	S2-050726	revised	TEI6
23.107	0156	1	Rel-6	Addition of GERAN to the scope section	F	6.2.0	Siemens	45	S2-050911	agreed	TEI6
23.107	0157	-	Rel-6	Adding delay variation (Jitter) to UMTS bearer attributes in TS 23.107	F	6.2.0	China Mobile	46	S2-051061	rejected	TEI6
23.125	0126	-	Rel-6	TPF behaviour in case of no charging rules for a bearer	F	6.4.0	Siemens	45	S2-050728	revised	CH-FBC
23.125	0126	1	Rel-6	TPF behaviour in case of no charging rules for a bearer	F	6.4.0	Siemens	45	S2-050839	revised	CH-FBC
23.125	0126	2	Rel-6	TPF behaviour in case of no charging rules for a bearer	F	6.4.0	Siemens	45	S2-050930	agreed	CH-FBC
23.125	0127	-	Rel-6	FBC Terminology amendments	F	6.4.0	Ericsson	45	S2-050753	revised	CH-FBC
23.125	0127	1	Rel-6	FBC Terminology amendments	F	6.4.0	Ericsson	45	S2-050840	agreed	CH-FBC
23.125	0128	-	Rel-6	Alignment of Re-authorisation triggers	F	6.4.0	Vodafone	45	S2-050594	revised	CH-FBC
23.125	0128	1	Rel-6	Alignment of Re-authorisation triggers	F	6.4.0	Vodafone	45	S2-050838	agreed	CH-FBC
23.125	0129	-	Rel-6	OCS initiated bearer removal	F	6.4.0	Siemens	46	S2-051277	revised	CH-FBC
23.125	0129	1	Rel-6	OCS initiated bearer removal	F	6.4.0	Siemens	46	S2-051369	agreed	CH-FBC
23.125	0130	-	Rel-6	Credit management clarified	F	6.4.0	Ericsson	46	S2-051306	rejected	CH-FBC
23.141	0071	1	Rel-6	Correction of description of PNA indirect control of Presence Information flow	F	6.7.0	Lucent	45	S2-050667	revised	PRESNC
23.141	0071	2	Rel-6	Correction of description of PNA indirect control of Presence Information flow	F	6.7.0	Lucent	45	S2-050799	agreed	PRESNC
23.141	0072	-	Rel-6	Alignment with Stage 3	F	6.7.0	Orange	46	S2-051180	agreed	PRESNC
23.141	0073	-	Rel-6	Update of references	F	6.7.0	Orange	46	S2-051181	revised	PRESNC
23.141	0073	1	Rel-6	Update of references	F	6.7.0	Orange	46	S2-051319	agreed	PRESNC
23.141	0074	-	Rel-6	Location of Presence entities	F	6.7.0	Orange	46	S2-051182	revised	PRESNC
23.141	0074	1	Rel-6	Location of Presence entities	F	6.7.0	Orange	46	S2-051320	agreed	PRESNC
23.141	0075	-	Rel-6	Locating the Presence Server	F	6.7.0	Orange	46	S2-051183	agreed	PRESNC
23.141	0076	-	Rel-6	UE based PUA/Network based PUA	F	6.7.0	Orange	46	S2-051184	revised	PRESNC
23.141	0076	1	Rel-6	UE based PUA/Network based PUA	F	6.7.0	Orange	46	S2-051321	agreed	PRESNC
23.141	0077	-	Rel-6	Modification about reference link in 24.141	D	6.7.0	Huawei	46	S2-051170	revised	PRESNC
23.141	0077	1	Rel-6	Modification about reference link in 24.141	F	6.7.0	Huawei	46	S2-051318	agreed	PRESNC
23.207	0087	-	Rel-6	Update of binding information handling	F	6.4.0	Siemens	46	S2-051275	agreed	TEI-6
23.228	0477	2	Rel-7	Forward HSS name	B	6.9.0	Ericsson	45	S2-050669	postponed	TEI7
23.228	0483	-	Rel-6	Alignment of Session-based Messaging flows with stage 3	F	6.9.0	RIM	45	S2-050634	revised	IMS2
23.228	0483	1	Rel-6	Alignment of Session-based Messaging flows with stage 3	F	6.9.0	RIM	45	S2-050918	agreed	IMS2
23.228	0484	-	Rel-5	GPRS procedure for P-CSCF discovery	F	5.13.0	Ericsson	45	S2-050700	withdrawn	IMS
23.228	0485	-	Rel-6	GPRS procedure for P-CSCF discovery	A	6.9.0	Ericsson	45	S2-050701	rejected	IMS2
23.228	0486	-	Rel-6	Correction of the information flow for session based messaging with intermediate node	F	6.9.0	Ericsson	45	S2-050706	rejected	IMS2

Spec	CR#	Rev	Rel	Subject	Cat	Vers	Source	Mtg #	Doc-2nd-Level	Status-2nd-Level	WI
23.228	0487	-	Rel-6	Clarification to the S-S procedures	F	6.9.0	Huawei	45	S2-050616	withdrawn	IMS2
23.228	0488	-	Rel-6	Clarification to the usage of ENUM DNS translation function	F	6.9.0	Huawei	45	S2-050618	rejected	IMS2
23.228	0489	-	Rel-6	Clarification to the usage of E.164 format Public User Identities in the IMS network	F	6.9.0	Huawei	45	S2-050619	rejected	IMS2
23.228	0490	-	Rel-6	On AS forking	F	6.9.0	Siemens	45	S2-050739	revised	IMS2
23.228	0490	1	Rel-6	On AS forking	F	6.9.0	Siemens	45	S2-050919	agreed	IMS2
23.228	0491	-	Rel-6	Corrections to wildcarded PSIs	F	6.9.0	Vodafone, Nokia, HP	46	S2-050988	agreed	IMS2
23.228	0492	-	Rel-6	Send Terminating User terminal's currently available capabilities	C	6.9.0	LG Electronics	46	S2-051068	rejected	IMS2
23.228	0493	-	Rel-6	Correction to the IMS session flows	F	6.9.0	Huawei	46	S2-051166	rejected	IMS2
23.228	0494	-	Rel-6	Clarification to the routing of SIP signalling within the IMS network	F	6.9.0	Huawei	46	S2-051167	revised	IMS2
23.228	0494	1	Rel-6	Clarification to the routing of SIP signalling within the IMS network	F	6.9.0	Huawei	46	S2-051364	revised	IMS2
23.228	0494	2	Rel-6	Clarification to the routing of SIP signalling within the IMS network	F	6.9.0	Huawei	46	S2-051412	revised	IMS2
23.228	0494	3	Rel-6	Clarification to the routing of SIP signalling within the IMS network	F	6.9.0	Huawei	46	S2-051451	agreed	IMS2
23.228	0495	-	Rel-7	Support of Topology Hiding and Access Network NAT traversal	F	6.9.0	Ericsson	46	S2-051187	revised	FBI
23.228	0495	1	Rel-7	Support of Topology Hiding and Access Network NAT traversal	F	6.9.0	Ericsson	46	S2-051360	withdrawn	FBI
23.228	0496	-	Rel-6	Session setup with media set to inactive	F	6.9.0	Ericsson	46	S2-051178	revised	PoC
23.228	0496	1	Rel-6	Session setup with media set to inactive	F	6.9.0	Ericsson	46	S2-051359	agreed	PoC
23.228	0497	-	Rel-6	Correction to ENUM resolution for Infrastructure ENUM	F	6.9.0	Vodafone	46	S2-051282	agreed	IMS2
23.228	0498	-	Rel-7	Support of ~~Topology Hiding and~~ Access Network NAT traversal	F	6.9.0	Ericsson	46	S2-051419	agreed	FBI
23.234	0122	-	Rel-6	Correction to Wn Reference Point	F	6.4.0	Lucent Technologies	45	S2-050774	revised	WLAN
23.234	0122	1	Rel-6	Correction to Wn Reference Point	F	6.4.0	Lucent Technologies	45	S2-050859	agreed	WLAN
23.234	0123	-	Rel-6	Adding SBLP to Abbreviations list	D	6.4.0	T-Mobile	45	S2-050795	revised	WLAN
23.234	0123	1	Rel-6	Adding SBLP to Abbreviations list	D	6.4.0	T-Mobile	45	S2-051015	rejected	WLAN
23.234	0124	-	Rel-6	User authentication for tunnel establishement	F	6.4.0	NEC	46	S2-051006	revised	WLAN
23.234	0124	1	Rel-6	User authentication for tunnel establishement	F	6.4.0	NEC	46	S2-051355	revised	WLAN
23.234	0124	2	Rel-6	User authentication for tunnel establishement	F	6.4.0	NEC	46	S2-051415	agreed	WLAN
23.234	0125	-	Rel-6	Mandating Immediate Purging	F	6.4.0	Nokia, T-Mobile	46	S2-051086	agreed	WLAN
23.234	0126	-	Rel-6	Detecting the start of a WLAN Direct IP Access session based on Wa/Wd Accounting Messages	F	6.4.0	Nokia	46	S2-051087	revised	WLAN
23.234	0126	1	Rel-6	Detecting the start of a WLAN Direct IP Access session based on Wa/Wd Accounting Messages	F	6.4.0	Nokia	46	S2-051353	agreed	WLAN
23.236	0016	1	Rel-6	Load re-distribution with A/Gb/Iu flex.	F	6.0.0	Vodafone	46	S2-051296	withdrawn	TEI
23.236	0017	-	Rel-5	Clarification of IPv4 and IPv6 node addresses in an IuFlex architecture	F	5.3.0	Huawei, China Mobile	45	S2-050623	postponed	IU-Flex
23.236	0018	-	Rel-6	Clarification of IPv4 and IPv6 node addresses in an IuFlex architecture	A	6.0.0	Huawei, China Mobile	45	S2-050622	rejected	IU-Flex
23.236	0019	-	Rel-6	Load re-distribution with A/Gb/Iu flex	F	6.0.0	Nortel Networks	46	S2-051136	rejected	IU-Flex
23.236	0020	-	Rel-6	Load re-distribution with A/Gb/Iu flex	F	6.0.0	Drafting Group	46	S2-051408	rejected	IU-Flex
23.236	0021	-	Rel-6	Load re-distribution for long-lived PS session	F	6.0.0	Nortel Networks	46	S2-051138	rejected	IU-Flex

Spec	CR#	Rev	Rel	Subject	Cat	Vers	Source	Mtg #	Doc-2nd-Level	Status-2nd-Level	WI
23.246	0142	-	Rel-6	Extension of the use of MBMS support indication from SGSN to UE	F	6.6.0	NEC Technologies	45	S2-050584	revised	MBMS
23.246	0142	1	Rel-6	Extension of the use of MBMS support indication from SGSN to UE	F	6.6.0	NEC Technologies	45	S2-050886	revised	MBMS
23.246	0142	2	Rel-6	Extension of the use of MBMS support indication from SGSN to UE	F	6.6.0	NEC Technologies	45	S2-050912	revised	MBMS
23.246	0142	3	Rel-6	Extension of the use of MBMS support indication from SGSN to UE	F	6.6.0	NEC Technologies	46	S2-051418	agreed	MBMS
23.246	0143	-	Rel-6	Modifications for MBMS tracing	F	6.6.0	Vodafone	45	S2-050585	revised	OAM-TRACE
23.246	0143	1	Rel-6	Modifications for MBMS tracing	F	6.6.0	Vodafone	45	S2-050887	revised	OAM-TRACE
23.246	0143	2	Rel-6	Modifications for MBMS tracing	F	6.6.0	Vodafone	46	S2-051240	Agreed / included in CR0154	MBMS
23.246	0144	-	Rel-6	Clarification of the TMGI	F	6.6.0	Vodafone	45	S2-050586	~~agreed~~revised	MBMS
23.246	0144	1	Rel-6	Clarification of the TMGI	F	6.6.0	Vodafone	46	S2-051462	agreed	MBMS
23.246	0145	-	Rel-6	Correction to charging information for MBMS	F	6.6.0	Vodafone	45	S2-050587	revised	MBMS
23.246	0145	1	Rel-6	Correction to charging information for MBMS	F	6.6.0	Vodafone	45	S2-050888	Agreed / included in CR0154	MBMS
23.246	0146	-	Rel-6	Complement of Inter SGSN Routeing Area Update procedure	F	6.6.0	Alcatel Shanghai Bell	45	S2-050602	rejected	MBMS
23.246	0147	-	Rel-6	Corrections to Inter SGSN Routeing Area Update procedure	F	6.6.0	Alcatel Shanghai Bell	45	S2-050603	revised	MBMS
23.246	0147	1	Rel-6	Corrections to Inter SGSN Routeing Area Update procedure	F	6.6.0	Alcatel Shanghai Bell	45	S2-050909	revised	MBMS
23.246	0147	2	Rel-6	Corrections to Inter SGSN Routeing Area Update procedure	F	6.6.0	Alcatel Shanghai Bell	45	S2-050913	agreed	MBMS
23.246	0148	-	Rel-6	MBMS Join clarification	F	6.6.0	Ericsson	45	S2-050714	revised	TEI6
23.246	0148	1	Rel-6	MBMS Join clarification	F	6.6.0	Ericsson	45	S2-050910	revised	TEI6
23.246	0148	2	Rel-6	MBMS Join clarification	F	6.6.0	Ericsson	45	S2-050914	revised	TEI6
23.246	0148	3	Rel-6	MBMS Join clarification	F	6.6.0	Ericsson	45	S2-050961	agreed	TEI6
23.246	0149	-	Rel-6	On session duration	F	6.6.0	Telecom Italia	45	S2-050906	postponed	TEI6
23.246	0150	-	Rel-7	Corrections to Inter SGSN Routeing Area Update procedure	C	7.0.0	Alcatel	46	S2-050989	revised	MBMS
23.246	0150	1	Rel-7	Corrections to Inter SGSN Routeing Area Update procedure	C	7.0.0	Alcatel	46	S2-051340	withdrawn	MBMS
23.246	0151	-	Rel-6	Corrections to MBMS Multicast Service Activation procedure	F	6.6.0	Alcatel	46	S2-050990	rejected	TEI6
23.246	0152	-	Rel-6	UE needs to join again for MBMS bearer service it has locally deactivated	F	6.6.0	NEC	46	S2-051004	revised	TEI6
23.246	0152	1	Rel-6	UE needs to join again for MBMS bearer service it has locally deactivated	F	6.6.0	NEC	46	S2-051352	revised	TEI6
23.246	0152	2	Rel-6	UE needs to join again for MBMS bearer service it has locally deactivated	F	6.6.0	NEC	46	S2-051362	revised	TEI6
23.246	0152	3	Rel-6	UE needs to join again for MBMS bearer service it has locally deactivated	F	6.6.0	NEC	46	S2-051396	revised	TEI6
23.246	0152	4	Rel-6	UE needs to join again for MBMS bearer service it has locally deactivated	F	6.6.0	NEC	46	S2-051417	agreed	TEI6
23.246	0153	-	Rel-6	On Estimated Session Duration	F	6.6.0	Telecom Italia	46	S2-051058	revised	MBMS
23.246	0153	1	Rel-6	On Estimated Session Duration	F	6.6.0	Telecom Italia	46	S2-051392	agreed	MBMS

Spec	CR#	Rev	Rel	Subject	Cat	Vers	Source	Mtg #	Doc-2nd-Level	Status-2nd-Level	WI
23.246	0154	-	Rel-6	Combined CR on MBMS Trace and Charging Information	F	6.6.0	Vodafone	46	S2-051241	Agreed / alternatives in CR0143R2 and CR145R1	MBMS
23.246	0155	-	Rel-6	Corrections to MBMS	F	6.6.0	Vodafone	46	S2-051297	revised	MBMS
23.246	0155	1	Rel-6	Corrections to MBMS	F	6.6.0	Vodafone	46	S2-051393	revised	MBMS
23.246	0155	2	Rel-6	Corrections to MBMS	F	6.6.0	Vodafone	46	S2-051416	agreed	MBMS
23.246	0156	-	Rel-6	MBMS Service prioritisation	F	6.6.0	Samsung	46	S2-051302	withdrawn	MBMS
23.251	0012	-	Rel-6	Clarification of PS and CS domain registration coordination	F	6.3.0	Ericsson	46	S2-051177	revised	NTShar
23.251	0012	1	Rel-6	Clarification of PS and CS domain registration coordination	F	6.3.0	Ericsson	46	S2-051391	revised	NTShar
23.251	0012	2	Rel-6	Clarification of PS and CS domain registration coordination	F	6.3.0	Ericsson	46	S2-051413	revised	NTShar
23.251	0012	3	Rel-6	Clarification of PS and CS domain registration coordination	F	6.3.0	Ericsson	46	S2-051437	revised	NTShar
23.251	0012	4	Rel-6	Clarification of PS and CS domain registration coordination	F	6.3.0	Ericsson	46	S2-051453	agreed	NTShar
23.271	0299	-	Rel-7	Notification based on current location of target UE	C	7.0.0	LG Electronics	46	S2-050987	rejected	LCS3
23.271	0300	-	Rel-7	Introducing A-GNSS concept to extend A-GPS to include GALILEO	C	7.0.0	Orange SA	46	S2-051025	rejected	Galileo
23.271	0301	-	Rel-7	Emergency location information in SGSN	C	7.0.0	Nokia	46	S2-051094	withdrawn	LCS3
23.271	0302	-	Rel-5	Clarifications on the use of non-dialable callback number	F	5.13.0	Ericsson	46	S2-051152	rejected	LCS
23.271	0303	-	Rel-6	Clarifications on the use of non-dialable callback number	A	6.11.0	Ericsson	46	S2-051153	revised	LCS2
23.271	0303	1	Rel-6	Clarifications on the use of non-dialable callback number	F	6.11.0	Ericsson	46	S2-051334	revised	LCS2
23.271	0303	2	Rel-6	Clarifications on the use of non-dialable callback number	F	6.11.0	Ericsson	46	S2-051409	agreed	LCS2
23.271	0304	-	Rel-7	Clarifications on the use of non-dialable callback number	A	7.0.0	Ericsson	46	S2-051154	revised	LCS3
23.271	0304	1	Rel-7	Clarifications on the use of non-dialable callback number	A	7.0.0	Ericsson	46	S2-051410	agreed	LCS3
23.271	0305	-	Rel-7	Non-dialable callback number definition for EU	C	7.0.0	Ericsson	46	S2-051155	rejected	LCS3
23.271	0306	-	Rel-7	MT-LR without HLR query - appropriate clarifications for EU	C	7.0.0	Ericsson	46	S2-051156	revised	LCS3
23.271	0306	1	Rel-7	MT-LR without HLR query - appropriate clarifications for EU	C	7.0.0	Ericsson	46	S2-051335	agreed	LCS3
23.271	0307	-	Rel-7	NI-LR - appropriate clarifications for EU	C	7.0.0	Ericsson	46	S2-051157	revised	LCS3
23.271	0307	1	Rel-7	NI-LR - appropriate clarifications for EU	C	7.0.0	Ericsson	46	S2-051336	revised	LCS3
23.271	0307	2	Rel-7	NI-LR - appropriate clarifications for EU	C	7.0.0	Ericsson	46	S2-051454	~~agreed~~revised	LCS3
23.271	0307	3	Rel-7	NI-LR - appropriate clarifications for EU	C	7.0.0	Ericsson	46	S2-051461	agreed	LCS3
23.271	0308	-	Rel-7	Missing definition of the abbreviation for RTT	D	7.0.0	Vodafone	46	S2-051242	agreed	TEI-7
23.979	0004	-	Rel-6	Correction of OMA PoC references	F	6.1.0	RIM	45	S2-050635	revised	POC
23.979	0004	1	Rel-6	Correction of OMA PoC references	F	6.1.0	RIM	45	S2-050892	agreed	POC

(133~~21~~ CRs handled, of which 23.246 CR0043R2 and CR0045R1 are agreed as alternatives, in case CR0154 is not approved by TSG SA.)

NOTE: "Rejected" is the term used in the MCC CR database. "Noted", as used at the SA WG2 meetings, does not exist as an option.

List of agreed CRs to be sent to TSG SA for approval:

Spec	CR#	Rev	Rel	Subject	Cat	Vers	Source	Mtg #	Doc-2nd-Level	Status-2nd-Level	WI
23.002	0154	-	Rel-6	Missing MBMS Architecture entities	F	6.7.0	Vodafone	45	S2-050588	agreed	MBMS
23.002	0156	1	Rel-6	Addition of Flow Based Charging architecture	F	6.7.0	Siemens	46	S2-051332	agreed	CH-FBC
23.060	0527	2	Rel-6	Activation of secondary PDP context without TFT	F	6.8.0	Siemens	46	S2-051274	agreed	TEI6
23.107	0154	2	Rel-6	RAB Allocation/Retention Priority	F	6.2.0	Siemens	45	S2-050727	agreed	TEI6
23.107	0156	1	Rel-6	Addition of GERAN to the scope section	F	6.2.0	Siemens	45	S2-050911	agreed	TEI6
23.125	0126	2	Rel-6	TPF behaviour in case of no charging rules for a bearer	F	6.4.0	Siemens	45	S2-050930	agreed	CH-FBC
23.125	0127	1	Rel-6	FBC Terminology amendments	F	6.4.0	Ericsson	45	S2-050840	agreed	CH-FBC
23.125	0128	1	Rel-6	Alignment of Re-authorisation triggers	F	6.4.0	Vodafone	45	S2-050838	agreed	CH-FBC

Spec	CR#	Rev	Rel	Subject	Cat	Vers	Source	Mtg #	Doc-2nd-Level	Status-2nd-Level	WI
23.125	0129	1	Rel-6	OCS initiated bearer removal	F	6.4.0	Siemens	46	S2-051369	agreed	CH-FBC
23.141	0071	2	Rel-6	Correction of description of PNA indirect control of Presence Information flow	F	6.7.0	Lucent	45	S2-050799	agreed	PRESNC
23.141	0072	-	Rel-6	Alignment with Stage 3	F	6.7.0	Orange	46	S2-051180	agreed	PRESNC
23.141	0073	1	Rel-6	Update of references	F	6.7.0	Orange	46	S2-051319	agreed	PRESNC
23.141	0074	1	Rel-6	Location of Presence entities	F	6.7.0	Orange	46	S2-051320	agreed	PRESNC
23.141	0075	-	Rel-6	Locating the Presence Server	F	6.7.0	Orange	46	S2-051183	agreed	PRESNC
23.141	0076	1	Rel-6	UE based PUA/Network based PUA	F	6.7.0	Orange	46	S2-051321	agreed	PRESNC
23.141	0077	1	Rel-6	Modification about reference link in 24.141	F	6.7.0	Huawei	46	S2-051318	agreed	PRESNC
23.207	0087	-	Rel-6	Update of binding information handling	F	6.4.0	Siemens	46	S2-051275	agreed	TEI-6
23.228	0483	1	Rel-6	Alignment of Session-based Messaging flows with stage 3	F	6.9.0	RIM	45	S2-050918	agreed	IMS2
23.228	0490	1	Rel-6	On AS forking	F	6.9.0	Siemens	45	S2-050919	agreed	IMS2
23.228	0491	-	Rel-6	Corrections to wildcarded PSIs	F	6.9.0	Vodafone, Nokia, HP	46	S2-050988	agreed	IMS2
23.228	0494	3	Rel-6	Clarification to the routing of SIP signalling within the IMS network	F	6.9.0	Huawei	46	S2-051451	agreed	IMS2
23.228	0496	1	Rel-6	Session setup with media set to inactive	F	6.9.0	Ericsson	46	S2-051359	agreed	PoC
23.228	0497	-	Rel-6	Correction to ENUM resolution for Infrastructure ENUM	F	6.9.0	Vodafone	46	S2-051282	agreed	IMS2
23.228	0498	-	Rel-7	Support of ~~Topology Hiding and~~ Access Network NAT traversal	F	6.9.0	Ericsson	46	S2-051419	agreed	FBI
23.234	0122	1	Rel-6	Correction to Wn Reference Point	F	6.4.0	Lucent Technologies	45	S2-050859	agreed	WLAN
23.234	0124	2	Rel-6	User authentication for tunnel establishement	F	6.4.0	NEC	46	S2-051415	agreed	WLAN
23.234	0125	-	Rel-6	Mandating Immediate Purging	F	6.4.0	Nokia, T-Mobile	46	S2-051086	agreed	WLAN
23.234	0126	1	Rel-6	Detecting the start of a WLAN Direct IP Access session based on Wa/Wd Accounting Messages	F	6.4.0	Nokia	46	S2-051353	agreed	WLAN
23.246	0142	3	Rel-6	Extension of the use of MBMS support indication from SGSN to UE	F	6.6.0	NEC Technologies	46	S2-051418	agreed	MBMS
23.246	0143	2	Rel-6	Modifications for MBMS tracing	F	6.6.0	Vodafone	46	S2-051240	Agreed / included in CR0154	MBMS
23.246	0144	~~-~~1	Rel-6	Clarification of the TMGI	F	6.6.0	Vodafone	4~~5~~6	S2-0~~5058~~61462	agreed	MBMS
23.246	0145	1	Rel-6	Correction to charging information for MBMS	F	6.6.0	Vodafone	45	S2-050888	Agreed / included in CR0154	MBMS
23.246	0147	2	Rel-6	Corrections to Inter SGSN Routeing Area Update procedure	F	6.6.0	Alcatel Shanghai Bell	45	S2-050913	agreed	MBMS
23.246	0148	3	Rel-6	MBMS Join clarification	F	6.6.0	Ericsson	45	S2-050961	agreed	TEI6
23.246	0152	4	Rel-6	UE needs to join again for MBMS bearer service it has locally deactivated	F	6.6.0	NEC	46	S2-051417	agreed	TEI6
23.246	0153	1	Rel-6	On Estimated Session Duration	F	6.6.0	Telecom Italia	46	S2-051392	agreed	MBMS
23.246	0154	-	Rel-6	Combined CR on MBMS Trace and Charging Information	F	6.6.0	Vodafone	46	S2-051241	agreed / alternatives in CR0143R2 and CR145R1	MBMS
23.246	0155	2	Rel-6	Corrections to MBMS	F	6.6.0	Vodafone	46	S2-051416	agreed	MBMS
23.251	0012	4	Rel-6	Clarification of PS and CS domain registration coordination	F	6.3.0	Ericsson	46	S2-051453	agreed	NTShar
23.271	0303	2	Rel-6	Clarifications on the use of non-dialable callback number	F	6.11.0	Ericsson	46	S2-051409	agreed	LCS2
23.271	0304	1	Rel-7	Clarifications on the use of non-dialable callback number	A	7.0.0	Ericsson	46	S2-051410	agreed	LCS3

Spec	CR#	Rev	Rel	Subject	Cat	Vers	Source	Mtg #	Doc-2nd-Level	Status-2nd-Level	WI
23.271	0306	1	Rel-7	MT-LR without HLR query - appropriate clarifications for EU	C	7.0.0	Ericsson	46	S2-051335	agreed	LCS3
23.271	0307	~~2~~3	Rel-7	NI-LR - appropriate clarifications for EU	C	7.0.0	Ericsson	46	S2-0514~~54~~61	agreed	LCS3
23.271	0308	-	Rel-7	Missing definition of the abbreviation for RTT	D	7.0.0	Vodafone	46	S2-051242	agreed	TEI-7
23.979	0004	1	Rel-6	Correction of OMA PoC references	F	6.1.0	RIM	45	S2-050892	agreed	POC

(45 agreed CRs, of which 23.246 CR0043R2 and CR0045R1 are agreed as alternatives, in case CR0154 is not approved by TSG SA.)

OTHER ANNEXES TO BE ADDED