

1 **Title:**

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2 **APPROVED SUMMARY OF TSG-S MEETING**  
3 for 15-18 April 2002 in Alexandria, VA.

4 **Source:**

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14 **Abstract:**

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15 This document is a summary of the 3GPP2 TSG-S meetings that were held during the period  
16 15-18 April 2002 in Alexandria, VA.

17 **Recommendation:**

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18 For review and approval.

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20 **Notice:**

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1 During the period of 15-18 April 2002, 3GPP2 TSG-S meetings were held at the Radisson Hotel Old  
2 Town Alexandria in Alexandria, VA. This document is intended to summarize those proceedings.

### 3 OPENING PLENARY

4 1. CALL TO ORDER AND OPENING REMARKS: The meeting was called to order on  
5 15 April 2002 at 1:25 PM local time by TSG-S Chair, Rich Robinson (Sprint PCS).

6 The Chair welcomed everyone to Alexandria, VA. The meeting attendees introduced  
7 themselves and their affiliations.

8 2. ATTENDANCE REGISTRATION AND ROLL CALL: A roll call of TSG-S active  
9 companies indicated 20 companies in attendance out of 23 active companies (87%  
10 participation). Thus, meeting quorum was achieved. Sign-in of individual attendees was  
11 accomplished via a sign-in sheet.

12 3. DISTRIBUTION AND NUMBERING OF CONTRIBUTIONS: Contributions were  
13 documented in S00-20020415-000R1. All contributions were distributed as soft copy only  
14 and were made available from the server.

15 4. ADOPTION OF AGENDA: The proposed agenda (S00-20020415-001R2) was presented.  
16 **DECISION: The agenda was approved without objection as submitted.**

17 5. REVIEW AND APPROVAL OF PREVIOUS MEETING SUMMARY: The meeting notes  
18 for January 2002 in Kobe, Japan (S00-20020415-002) were presented. **DECISION: This**  
19 **meeting summary was approved without objection as submitted.**

20 6. CORRESPONDENCE AND LIAISON REPORTS

21 • 3GPP2 SC/OP: Contributions (S00-20020415-003) related to the SC and OP  
22 meetings that were held in Maui, HI during the period of 18-19 March 2002. The  
23 action remanded to TSG-S was indicated as follows: "TSG-S is requested to take  
24 appropriate steps to bring the required parties (i.e. specifications/standards formulating  
25 groups and UIM ID manufacturing code customers) together for discussion and  
26 resolution regarding whether the UIM ID Administrator's report should associate UIM  
27 ID manufacturing codes with manufacturers." **DECISION: The Chair directed the**  
28 **following:**

- 29 • The UIM AdHoc is being reactivated.
- 30 • The TSG-S UIM AdHoc should hold a teleconference to discuss the issues of  
31 concern during the week of 29 April 2002. Invitees should include:
  - 32 • UIM vendors (i.e., Gemplus, SchlumbergerSema, etc.)
  - 33 • TSG-N representatives
  - 34 • Handset vendors
- 35 • A volunteer is being solicited to Chair this adhoc for this limited activity. Mike  
36 Dolan (Lucent) subsequently was appointed to this role.

1 The potential 3GPP2 2003 meeting schedule (S00-20020415-003D) was reviewed  
2 and issues associated with the number of TSG-S meetings per year were discussed.

3 E-mail correspondence dated 11 April 2002 regarding the new contribution cover sheet  
4 (S00-20020415-010) was presented from the 3GPP2 Secretariat. This  
5 correspondence noted that the use of this cover sheet is mandated after 1 June 2002 or  
6 the contribution will be rejected. This contribution was noted as FYI.

7 E-mail correspondence dated 11 April 2002 regarding the new 3GPP2 WPD (S00-  
8 20020415-009) was presented from the 3GPP2 Secretariat. This contribution was  
9 noted as FYI.

10 The TSG-C Publication Policy (S00-20020415-023) was presented as remanded by  
11 the SC for review and comment by the TSG. **ACTION: This contribution was**  
12 **remanded to WG3 for review and action as appropriate.**

- 13 • 3GPP2 SECRETARIAT: The following contributions were received from the 3GPP2  
14 Secretariat:

- 15 • E-mail correspondence regarding the publication of S.R0060-0 v1.0 and  
16 S.S0028-0 v3.0 (S00-20020415-005)

- 17 • E-mail correspondence regarding the publication of S.S0053-0 v1.0,  
18 S.S0054-0 v1.0, and S.S0055-0 v1.0 (S00-20020415-006)

19 These contributions were noted as FYI.

- 20 • OHG HARMONIZATION - IP CN WORKSHOP: Mark Lipford (Sprint PCS), as  
21 Co-Chair of the 3GPP/3GPP2 IP Core Network Harmonization Workshop that was  
22 held in Toronto during the period of 3-4 April 2002, gave an overview of the  
23 workshop. The e-mail correspondence (S00-20020415-004) from the 3GPP2  
24 Secretariat request comments regarding the workshop outputs by 29 April 2002.

25 A proposal for 3GPP2 MMD and 3GPP IMS Convergence (S00-20020415-024)  
26 was presented by Nokia.

27 **ACTION: Contributions related to the Harmonization Workshop**  
28 **(S00-20020415 004) and the Nokia proposal (S00-20020415-024) were**  
29 **remanded to all WGs for review and comment.**

30 **DECISION: An interim TSG-S Plenary will be held on Thursday 18 April 2002**  
31 **at 8:00 AM to review the status of WGs in their review of the IP CN**  
32 **Harmonization information.**

- 33 • TSG-C: The following correspondence was received from TSG-C:
  - 34 • Correspondence dated 13 March 2002 regarding the TSG-C requirements  
35 review (S00-20020415-029) was presented. **ACTION: This contribution**  
36 **was remanded to WG1 for review and action as appropriate.**

- 1           •       Correspondence dated 27 March 2002 regarding the update on the TSG-C  
2 requirements review (S00-20020415-008) was presented. **ACTION: This**  
3 **contribution was remanded to WG1 for review and action as**  
4 **appropriate.**
- 5           •       1xEV-DV Integrated Data and Voice Requirements Report (S00-20020415-  
6 030) was presented. **ACTION: This contribution was remanded to WG1**  
7 **for review and action as appropriate.**
- 8           •       TSG-A: The following correspondences were received from TSG-A:
- 9           •       Correspondence dated 15 March 2002 regarding QoS support in the IOS  
10 (S00-20020415-011) was presented. **ACTION: This contribution was**  
11 **remanded to WG1 for review and action as appropriate. WG1 is**  
12 **intended to develop a gameplan for the QoS MMD Stage 1 and also to**  
13 **develop a preliminary response to TSG-A.**
- 14           •       Correspondence dated 11 March 2002 regarding proposed NAM changes  
15 (S00-20020415-012) was presented. **ACTION: This contribution was**  
16 **remanded to WG2 for review and action as appropriate.**
- 17           •       Correspondence dated 11 March 2002 regarding Stage 1s (S00-20020415-  
18 013) was presented. **ACTION: This contribution was remanded to WG3**  
19 **for review and action as appropriate.**
- 20           •       TSG-N: The following documents were received from TSG-N:
- 21           •       Correspondence dated 14 March 2002 regarding MMD system requirements  
22 (S00-20020415-015) was presented from TSG-N. **ACTION: This**  
23 **contribution was remanded to WG1 for review and action as**  
24 **appropriate.**
- 25           •       Correspondence dated 14 March 2002 regarding protocol alignment  
26 (S00-20020415-016) was presented from TSG-N. There was no consensus  
27 in the Plenary that the level of technical detail requested that the responsibility  
28 that TSG-N requested that TSG-S assume could be supported by TSG-S.  
29 **ACTION: This contribution was remanded to WG3 for review and**  
30 **action as appropriate.**
- 31           •       Correspondence dated 14 March 2002 regarding UIM Administration Report  
32 (S00-20020415-017) was presented from TSG-N. **ACTION: This**  
33 **contribution was remanded to the UIM ID AdHoc for consideration in**  
34 **conjunction with the planned JEM teleconference.**

- 1 • TSG-P: Correspondence dated 11 March 2002 regarding TSG-N NAM Liaison  
2 (S00-20020415-014) was presented from TSG-P. **ACTION: This contribution**  
3 **was remanded to WG2 for review and action as appropriate.**
- 4 • TR45: Undated correspondence regarding potential TSB-100A update (S00-  
5 20020415-018) was presented from the TR45 NAG. **ACTION: This contribution**  
6 **was remanded to WG2 for review and response as appropriate.**
- 7 • ITU: E-mail correspondence dated 14 April 2002 regarding coordination of workplans  
8 (S00-20020415-022) was presented from the ITU-T SSG. This correspondence  
9 requested a copy of the latest 3GPP2 workplan. **ACTION: This contribution was**  
10 **remanded to WG3 for review and response as appropriate. It was also**  
11 **remanded to the Vision AdHoc as FYI.**
- 12 • TR45 AHAG: No report.
- 13 • 3GPP-SA5 and T1M1: No report.
- 14 • CDG: A work item worksheet (S00-20020415-020) and a draft Stage 1 (S00-  
15 20020415-021) for wireless application management was presented from CDG. The  
16 discussion noted some similarity with IOTA and determined that the distinction between  
17 the two (2) should be discussed. **ACTION: The work item worksheet**  
18 **(S00-20020415-020) was remanded to WG3 for review and response as**  
19 **appropriate. The draft Stage 1 (S00-20020415-021) was remanded to WG1,**  
20 **WG3, WG4, and WG5 for review and action as appropriate.**
- 21 • MWIF: No report.
- 22 • WAP FORUM: Liaison to 3GPP and 3GPP2 regarding instant messaging (S00-  
23 20020415-027) was presented from the WAP Forum. **ACTION: This contribution**  
24 **was remanded to WG1 for review and response as appropriate.**
- 25 • GGRF: Correspondence with SDOs on C-PDS in Foreign Mode dated 26 March  
26 2002 (S00-20020415-019) was presented from the GSM Global Roaming Forum.  
27 **ACTION: This contribution was remanded to WG3 for review and response as**  
28 **appropriate.**
- 29 7. NEW/OLD BUSINESS:
- 30 • A contribution on Phase-2 Step-1 Enhancements for Evolution Plan Rev-1.0.5 (S00-  
31 20020415-019) was presented from NEC, SPCS, and Motorola. **ACTION: This**  
32 **contribution was remanded to WG3 for review and response as appropriate.**

## 1 8. WG BUSINESS:

2 • WG1 ISSUES: A contribution on MMD Stage 1 requirements (S00-20020415-019)  
3 was presented from Sprint PCS. **ACTION: This contribution was remanded to**  
4 **WG1 for review and response as appropriate.**

5 • WG2 ISSUES: No issues were noted.

6 • PMT ISSUES: No issues were noted.

7 • WG4 ISSUES: No issues were noted.

8 • WG5 ISSUES: No additional issues were noted.

9 • VISION ISSUES: No issues were noted.

10 • EQUIPMENT NUMBERING ISSUES: E-mail correspondence dated 27 March  
11 2002 to all TSGs regarding Numbering JEM Support (S00-20020415-007) was  
12 presented by the Chair as FYI.

13 An MEID Proposal (S00-20020415-026) was presented from KDDI. **ACTION:**  
14 **This contribution was remanded to the Equipment Numbering AdHoc for review**  
15 **and response as appropriate.**

16 • UIM ISSUES: No additional issues were noted.

17 The Plenary was recessed at on 15 April 2002 at 5:35 PM local time.

18

19 **INTERIM PLENARY**

20 The Plenary was reconvened on 18 April 2002 at 8:20 AM local time by TSG-S Chair, Rich Robinson  
21 (Sprint PCS). Quorum had been established at the opening Plenary and was not challenged at this  
22 session. One (1) additional member company was noted in attendance.

23 The Chair noted the objective of this interim Plenary to be review of WG discussions related to IP Core  
24 Network Harmonization.

25 7. NEW/OLD BUSINESS:

26 • Regarding WG discussions on IP Core Network Harmonization:

27 • WG1 Chair, Nick Mazzerella (Lucent), noted that a WG1 focus group to  
28 review this topic during the interim between now and the next meeting. George  
29 Fry (Nokia) was named to Chair this FG. The group will hold conference calls  
30 to discuss this topic on 22, 24, and 26 April 2002 during the period of 5-7 PM  
31 US central time. The call-in info will be broadcast at a later date.

- 1 • WG2 Chair, Mark Lipford (Sprint PCS), noted that WG2 has indicated general  
2 consensus in support of the proposed harmonization activities. The group has  
3 also noted a relationship in the objectives of WG1/3GPP SA1 and WG2/3GPP  
4 SA2.
- 5 • Mike Dolan (Lucent), in the absence of the WG3 Chair, Eileen Hadwen  
6 (NEC), noted that there should be a close link between the PMT and 3GPP  
7 MCC (Mobile Competence Centre) to insure common project management  
8 activities.
- 9 • WG4 Chair, Frank Quick (QUALCOMM), noted the following statement from  
10 WG4: “The members of WG4 favor the concept of harmonization between  
11 3GPP IMS and 3GPP2 MMD. However, WG4 believes that there are  
12 significant security issues that must be addressed in order to achieve  
13 harmonization.” The group also noted similar responsibilities between WG4  
14 and 3GPP SA3.
- 15 • The TSG-S Chair noted that a discussion between TSG-N and TSG-S  
16 leadership had been held to discuss this issues and that the 3GPP2 Secretariat  
17 had been presented at that meeting. Ericsson noted their objection to that  
18 meeting as being a closed session at which such technical issues should not have  
19 been conducted. Based on that objection, the Chair agreed that all references  
20 to those discussions should be restricted to that portion of the discussions  
21 related to administrative and procedural issues. Those issues included the  
22 following:
- 23 • Copyright issues
  - 24 • Rules on joint activities
  - 25 • Rules governing the submission of contributions
  - 26 • Rules governing joint meeting
  - 27 • Legal framework between entities
- 28 • Proposed correspondence to the 3GPP2 SC Chair (S00-20020415-050) was  
29 presented and reviewed. **DECISION: This contribution was approved**  
30 **without objection for transmission as modified by the discussion (S00-**  
31 **20020415-050R2).**
- 32 • Frank Quick (QUALCOMM) also noted the following additional concerns:
- 33 • 3GPP2 should not allow its work to be delayed or deferred while  
34 seeking a relationship with 3GPP.
  - 35 • 3GPP2 should not accept any relationship in which it relinquishes  
36 control of requirements to 3GPP.
  - 37 • 3GPP2 should not accept any requirements that degrade the  
38 performance of cdma2000 systems relative to UMTS.

- 1           •       Correspondence dated 18 April 2002 to 3GPP2 SC Chair regarding ESN  
2                   (S00-20020415-051) was presented and reviewed. **ACTION: This contribution**  
3                   **was remanded to the Equipment Numbering AdHoc for review and action as**  
4                   **appropriate.**

5   The Plenary was recessed at on 17 April 2002 at 9:45 PM local time.

6

7   **CLOSING PLENARY**

8   The Plenary was reconvened on 18 April 2002 at 1:12 PM local time by TSG-S Chair, Rich Robinson  
9   (Sprint PCS). Quorum had been established at the opening Plenary and was not challenged at this  
10   session.

11   9.   **WORKING GROUP REPORTS:**

- 12           •       WG1 Report (S00-20020415-101) was presented by WG1 Chair, Nick Mazzarella  
13                   (Lucent), as FYI.
- 14           •       Reviewed issues related to IP Core Network Harmonization. Initiated a focus  
15                   group to discuss these issues between now and the next meeting. George Fry  
16                   (Nokia) was named as the Focus Group Chair.
- 17           •       Reviewed TSG-C analysis of 1xEV-DV projected performance vs TSG-S  
18                   requirements. Generated response to TSG-C.
- 19           •       Continued work on the following requirements documents:
- 20                   •       Broadcast/Multicast
- 21                   •       Multimedia Messaging Services (MMS)
- 22                   •       Multimedia Domain (MMD) System Requirements
- 23                   •       Multimedia Streaming
- 24                   •       Packet Data Intercept-IP
- 25                   •       Packet Data Intercept-Legacy
- 26                   •       FT File Format

27           **DECISION: S.P0021 Multimedia Streaming v1.9 (S00-20020415-108AR2) was**  
28           **approved without objection for publication. Cover correspondence will not be**  
29           **transmitted.**

30           **DECISION: Legacy System Packet Data Surveillance Requirements v0.2**  
31           **(S00-20020415-109A) was approved without objection for publication as**  
32           **S.R0071. Cover correspondence will not be transmitted.**



1           **DECISION: IP System Packet Data Surveillance Requirements v0.2**  
2           **(S00-20020415-110A) was approved without objection for publication as**  
3           **S.R0072. Cover correspondence will not be transmitted.**

4           **DECISION: S.P0067 Enhanced Call Recovery Stage 1 v0.2**  
5           **(S00-20020415-111A) was approved without objection for publication as**  
6           **S.R0067.**

7           **DECISION: Proposed correspondence to TSG-C in response to their**  
8           **requirements review process (S00-20020415-112) was approved without**  
9           **objection for transmission as modified by the discussion (S00-20020415-**  
10           **112R1).**

11           **DECISION: Proposed correspondence to TSG-N regarding MMD**  
12           **requirements in response to their liaison (S00-20020415-113) was approved**  
13           **without objection for transmission as modified by the discussion (S00-**  
14           **20020415-113R1).**

15           **DECISION: Proposed correspondence to TSG-C regarding 1xEV-DV**  
16           **requirements analysis in response to their requirements review process**  
17           **(S00-20020415-114) was approved without objection for transmission as**  
18           **modified by the discussion (S00-20020415-114R1).**

19           **DECISION: Proposed correspondence to TSG-C regarding MMS Stage 1**  
20           **(S00-20020415-115) was approved without objection for transmission as**  
21           **modified by the discussion (S00-20020415-115R1).**

22           **DECISION: Proposed correspondence to TSG-C regarding Multimedia**  
23           **Streaming Stage 1 (S00-20020415-116) was approved without objection for**  
24           **transmission as modified by the discussion (S00-20020415-116R1).**

25           **DECISION: Proposed correspondence to TSG-A regarding end-to-end QoS**  
26           **support (S00-20020415-117) was approved without objection for transmission as**  
27           **modified by the discussion (S00-20020415-117R1).**

28           **DECISION: Proposed correspondence to TSG-P regarding S.R0030**  
29           **Broadcast/Multicast Stage 1` (S00-20020415-119) was approved without**  
30           **objection for transmission as modified by the discussion (S00-20020415-**  
31           **119R1).**

32           **DECISION: Proposed correspondence to all TSGs regarding final approval of**  
33           **the IOTA Stage 1 (S00-20020415-120) was approved without objection for**  
34           **transmission as modified by the discussion (S00-20020415-120R1). S.P0073**  
35           **was requested and approved for this document.**

1           **DECISION: Proposed correspondence to all TSGs regarding review of**  
2           **S.P0065 Fast Call Setup Stage 1 (S00-20020415-121R1) was approved without**  
3           **objection for transmission. NOTE: Response is requested by 3 May 2002 in**  
4           **order not to delay the publication of cdma2000 Release C.**

- 5           •     WG2 Report (S00-20020415-102R1) was presented by the WG2 Chair, Mark  
6           Lipford (Sprint PCS) as FYI.
  - 7                 •     Reviewed correspondence from TR45 NAG regarding the desirability to  
8                 update TSB100-A with the All IP NAM info and prepared a response.
  - 9                 •     Began review of harmonization issues and noted general agreement in principle  
10                 but further review is required..
  - 11                 •     Received new Evolution Document. Will continue review at the next meeting.

12           **DECISION: Proposed correspondence to TR45 NAG regarding the addition of**  
13           **the NAM to TSB100-A (S00-20020415-125) was approved without objection for**  
14           **transmission.**

15           **DECISION: Proposed correspondence to all TSGs distributing the URL of the**  
16           **new version of the NAM (S00-20020415-123AR1) was approved without**  
17           **objection for transmission.**

18           **DECISION: Proposed correspondence to TSG-P regarding their requests for**  
19           **NAM changes (S00-20020415-118R1) was approved without objection for**  
20           **transmission.**

- 21           •     WG3 PMT Report (S00-20020415-103R3) was presented by PMT Chair, Eileen  
22           Hadwen (NEC), as FYI.
  - 23                 •     Approved the following new work items for review by the TSGs
    - 24                         •     Wireless Application Management
    - 25                         •     1xEV-DV
    - 26                         •     LMDS-1, revised
  - 27                 •     Approved the following new work items for final review by the SC
    - 28                         •     Enhanced Call Recovery
    - 29                         •     Legacy System Packet Surveillance
    - 30                         •     All-IP System Packet Surveillance
    - 31                         •     IP Service Architecture
    - 32                         •     Common Security Algorithms
    - 33                         •     File and media Format for Multimedia Services
    - 34                         •     N.S00026-B DMH

1 Work items will be distributed by the PMT Coordinator to both the TSGs and  
2 the SC.

3 **DECISION: Proposed correspondence to all TSGs regarding S.P0070 3GPP2**  
4 **Work Item, Stage 1, System Requirements Process Guidelines (S00-20020415-**  
5 **128R1) was approved without objection for transmission.**

6 **DECISION: Proposed correspondence to all TSGs regarding Teleconference**  
7 **Review of the 3GPP2 System Release Guide (S00-20020415-126) was**  
8 **approved without objection for transmission.**

9 **DECISION: Proposed correspondence to TSG-A regarding their 11 March**  
10 **2002 liaison on Stage 1s (S00-20020415-127R1) was approved without objection**  
11 **for transmission.**

- 12 • WG4 Report (S00-20020415- 104) was presented by WG4 Chair, Frank Quick  
13 (QUALCOMM), as FYI.
  - 14 • Reviewed IP Core Network Harmonization issues and generated the following  
15 position statement: “The members of WG4 favor the concept of harmonization  
16 of the 3GPP2 MMD and 3GPP IP Multimedia Subsystem (IMS). However,  
17 WG4 believes that there are significant security issues that must be addressed in  
18 order to achieve harmonization.”
  - 19 • Action on Push Services will be terminated since that feature will be merged  
20 into MMS.
  - 21 • Continued work on security aspects of other Stage 1 documents in  
22 development.
  - 23 • Approved input to the upcoming ITU-T Security Workshop.
  - 24 • Determined that WG4 will not meeting in Newport Beach, CA next month.

25 WG4 comments on S00-20020311-041 (N.P0039) (S00-20020415-132) were  
26 presented and no other WG indicated any interest in providing additional comment.

27 **DECISION: Proposed correspondence to TSG-N regarding N.P0039**  
28 **(S00-20020415-132A) was approved without objection for transmission.**

- 29 • WG5 did not meet..
- 30 • Vision AdHoc Report (S00-20020415- 106) was presented by the Vision AdHoc  
31 Chair, Scott Migaldi (Motorola), as FYI.
  - 32 • Decided to commence development of the 3GPP2 Vision Document.
  - 33 • Decided to hold a Vision JEM to solicit inputs for the development of the Vision  
34 Document

1           **DECISION: Proposed correspondence to a variety of industry leaders**  
2           **regarding the announcement of a Joint Experts Meeting for 3GPP2 Vision**  
3           **during the period of 12-13 July 2002 after the San Diego super**  
4           **meeting (S00-20020415-106A) was approved without objection for transmission**  
5           **as modified by the discussion (S00-20020415-106AR1).**

- 6           • Mobile Equipment Numbering AdHoc Report (S00-20020415-107) was presented by  
7           the Numbering AdHoc Chair, Alex Gogic (QUALCOMM), as FYI:
  - 8                 • Held joint meeting with TSG-C and TSG-N to review Equipment Numbering  
9                 JEM output. Summary of that meeting (S00-20020415-122) was noted as  
10                FYI.
  - 11               • Continued planning activities associated with the next Equipment Numbering  
12                JEM in Brussels during the period of 23-24 April 2002.

13           **DECISION: Proposed correspondence to a variety of industry leaders**  
14           **regarding Equipment Identifiers JEM Report and Conclusion (S00-**  
15           **20020415-134R1) was approved without objection for transmission.**

- 16           • UIM AdHoc Report was presented verbally by the UIM ID AdHoc Chair, Mike Dolan  
17           (Lucent):

18           The UIM ID AdHoc Chair noted that the 3GPP2 Secretariat would be meeting in the  
19           very near future with TSG-N regarding the issue of the UIM ID Administrator's Report.  
20           As such, the proposed related correspondence (S00-20020415-127) was withdrawn.

21           Mike Dolan agreed to continue as the UIM ID AdHoc Chair for the period required to  
22           resolve the concerns related to the UIM ID Administrator's Report.

23   10.   NEW BUSINESS (continued):

- 24           • The Chair noted issues of the 2002 schedule changes and numbers of meetings in 2003  
25           as follows:
  - 26                 • Based on the fact the TSG-S can no longer operate on a 3-day schedule, the  
27                 3GPP2 Meeting Planner has investigated alternative meeting sites/dates to the  
28                 SC/OP collocated schedules for the remainder of the year. The Chair has  
29                 suggested the following TSG-S meeting schedule modifications:
    - 30                         • The August meeting, originally scheduled for collocation in China, was  
31                         modified to collocate with the other TSGs in Portland earlier that same  
32                         month.
    - 33                         • The October meeting, originally scheduled for collocation in Japan, was  
34                         modified to collocate with the other TSGs in Quebec City the week  
35                         before.

1                   **DECISION: The TSG agreed without objection on the following**  
2                   **priorities with respect to these meetings and agreed to allow the meeting**  
3                   **planners to determine the revised meeting schedule for these meetings**  
4                   **based on these priorities:**

- 5                   •       **The group preferred to maintain the existing venues and extend**  
6                   **the schedules to overlap the SC/OP meeting.**
- 7                   •       **If that cannot be accomplished, the schedule changes proposed**  
8                   **by the Chair would be the second priority.**

- 9                   •       **DECISION: Regarding the schedule for 2003, the TSG endorsed without**  
10                   **objection a plan to have 12 meetings.**

- 11                   •       **DECISION: Regarding the potential addition of a meeting in November 2002,**  
12                   **the TSG declined without objection the addition of a November 2002 meeting.**

- 13                   •       The TSG-C Liaison reported the following:

- 14                   •       In compliance with the intent of an SC remanded, TSG-C will implement the  
15                   following plan:

- 16                   •       An addendum to cdma2000 Release A to incorporate the Sync  
17                   Channel fix as defined in the SC remand will be prepared by 17 May  
18                   2002 (instead of 19 April 2002).
- 19                   •       If a standards change is warranted, based on the report expected from  
20                   the Sync Channel AdHoc by 13 May 2002, the Release A point  
21                   release will be released for SDO review and comment on 17 May  
22                   2002.

- 23                   •       cdma2000 Release B ballot resolution text will be released for publication on  
24                   19 April 2002.

- 25                   •       cdma2000 Release C ballot resolution will begin next month. An interim  
26                   Plenary will be held on 28 May 2002 to approve Release C for publication in  
27                   time to meet the 31 May 2002.

- 28                   •       Correspondence from the 3GPP2 Secretariat regarding a request from the ITU  
29                   IMT-2000 Program Manager for 3GPP2 system release scheduling information  
30                   (So00-20020415-133) was presented as liaised from TSG-C.

31                   Correspondence from TSG-C detailed requested TSG-S action will be  
32                   distributed by e-mail once it is approved by TSG-C. **ACTION: This**  
33                   **contribution was remanded to WG3 for review and action by the closing**  
34                   **Plenary in May 2002 and to the Vision AdHoc as FYI.**

35   11.    OLD BUSINESS (continued):

- 36                   •       E-mail correspondence dated 6 April 2002 from the 3GPP2 Secretariat noting the  
37                   release of S.R0069-0 v1.0 HSG for 15-day review for publication (S00-20020415-  
38                   129) was noted as FYI.

1           •           Contribution S00-20020415-131 was noted as a duplicate of S00-20020415-051.

2 12.       ASSIGNMENTS: No action items beyond the remand of contributions was noted..

3 13.       ADMINISTRATION AND OTHER BUSINESS: None.

4 14.       REVIEW OF FUTURE MEETINGS:

|                 |   |
|-----------------|---|
| 13-17 May 2002  | Radisson Newport Beach in Newport Beach, CA   |
| 10-14 June 2002 | Shenzhen Wuzhou Guesthouse in Shenzhen, China |
| 8-12 July 2002  | Hyatt La Jolla in San Diego, CA               |

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6 15.       ADJOURNMENT: This meeting was adjourned on 18 April 2002 at 6:25 PM local time.

1 A listing of the contributions for this meeting is itemized below:

| NUMBER                                       | SUBJECT  | SOURCE                             |
|--|--|------------------------------------|
| <b>OPENING PLENARY - 3GPP2-S00-20020415-</b> |  |                                    |
| 000  | CONTRIBUTION REGISTER  | SECRETARY                          |
| 001  | AGENDA   | CHAIR                              |
| 002  | Meeting Summary - March 2002 - Kobe, Japan   | SECRETARY                          |
| 003  | Issues from March 2002 SC and OP meetings  | 3GPP2 SECRETARIAT<br>AND SECRETARY |
| 004  | 3GPP/3GPP2 IP Core Network Harmonization Workshop  | 3GPP2 SECRETARIAT                  |
| 005  | Notice regarding publication of S.R0060-0 v1.0 and S.S0028-0 v3.0                          | 3GPP2 SECRETARIAT                  |
| 006  | Notice regarding 15-day review of S.S0053-0 v1.0, S.S0054-0 v1.0,<br>and S.S0055-0 v1.0    | 3GPP2 SECRETARIAT                  |
| 007  | E-mail correspondence dated 27 March 2002 regarding<br>Numbering JEM Support               | CHAIR                              |
| 008  | Correspondence dated 27 March 2002 regarding updated TSG-C<br>requirements review activity | TSG-C                              |
| 009  | E-mail dated 8 April 2002 regarding the new version of WPD<br>available                    | 3GPP2 SECRETARIAT                  |
| 010  | E-mail dated 11 April 2002 regarding the new contribution cover<br>sheet                   | 3GPP2 SECRETARIAT                  |
| 011  | Correspondence dated 15 March 2002 regarding QoS support in<br>the IOS                     | TSG-A                              |
| 012  | Correspondence dated 11 March 2002 regarding proposed NAM<br>changes                       | TSG-A                              |
| 013  | Correspondence dated 11 March 2002 regarding Stage 1s                                      | TSG-A                              |
| 014  | Correspondence dated 11 March 2002 regarding TSG-N NAM<br>Liaison                          | TSG-P                              |
| 015  | Correspondence dated 14 March 2002 regarding MMD system<br>requirements                    | TSG-N                              |
| 016  | Correspondence dated 14 March 2002 regarding protocol<br>alignment                         | TSG-N                              |
| 017  | Correspondence dated 14 March 2002 regarding UIM<br>Administration Report                  | TSG-N                              |
| 018  | Undated correspondence regarding potential TSB-100A update                                 | TIA TR45 NAG                       |
| 019  | Correspondence with SDOs on C-PDS in Foreign Mode dated 26<br>March 2002                   | GSM GLOBAL ROAMING<br>FORUM G95    |
| 020  | Work Item Worksheet for Wireless Applications Management                                   | CDG                                |
| 021  | Standards Requirements Document for Wireless Applications<br>Management                    | CDG                                |
| 022  | E-mail correspondence dated 14 April 2002 regarding<br>coordination of workplans           | ITU-T SSG                          |
| 023  | TSG-C Publication Policy   | 3GPP2 SC                           |
| 024  | Proposal for 3GPP2 MMD and 3GPP IMS Convergence  | NOKIA                              |

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|  |  |                         |
|--|--|-------------------------|
| 025  | MMD Stage 1 requirements   | SPCS                    |
| 026  | MEID Proposal  | KDDI                    |
| 027  | Liaison to 3GPP and 3GPP2 regarding instant messaging  | WAP FORUM LIAISON       |
| 028  | Phase-2 Step-1 Enhancements for Evolution Plan Rev-1.0.5   | NEC, SPCS, AND MOTOROLA |
| 029  | Correspondence dated 13 March 2002 regarding TSG-C requirements review activity                            | TSG-C                   |
| 030  | 1xEV-DV Integrated Data and Voice Requirements Report  | TSG-C                   |
| <b>INTERIM PLENARY - 3GPP2-S00-20020415-</b>                   |  |                         |
| 050  | Correspondence regarding TSG-S on harmonization  | EDITOR                  |
| 051  | Correspondence dated 18 April 2002 to 3GPP2 SC Chair regarding ESN   | TR45                    |
| <b>WG1: FEATURE/SERVICE REQUIREMENTS - 3GPP2-S10-20020415-</b> |  |                         |
| 000  | CONTRIBUTION REGISTER  | SECRETARY               |
| 001  | AGENDA   | CHAIR                   |
| 002  | TSG-S Working Group 1 Summary from March 2002 meeting  | CHAIR                   |
| 003  | Multimedia Domain System Requirements updates  | EDITOR                  |
| 004  | Session Mobility   | LUCENT AND SPCS         |
| 005  | Local Services   | LUCENT                  |
| 006  | Multimedia Services Stage 1  | LUCENT                  |
| 007  | IP Based Service Architecture  | LUCENT                  |
| 008  | Push Stage 1 Status and Recommendation   | NOKIA                   |
| 009  | Comments to S.P0064, MMS   | NOKIA                   |
| 010  | Applicability of PN-4747 Stage 1 to IP-Based Location Services   | QUALCOMM                |
| 011  | Comments on MMS Stage 1  | ERICSSON                |
| 012  | Comments on File Format for Multimedia Service Stage 1 and Multimedia Streaming Service and Recommendation | NOKIA                   |
| 013  | Answer to TSG-P questions on BCMC Service Requirements   | QUALCOMM                |
| 014  | WG-4 Correspondence on MMS Security  | CHAIR                   |
| 015  | Response to TSG-P questions in BCMC Correspondence   | EDITOR                  |
| 016  | MMS Ad Hoc Meeting Notes   | MMS AD HOC              |
| 017  | IOTA Stage 1 Update  | EDITOR                  |
| 018  | Correspondence to TSG-C for their MMS review comments  | EDITOR                  |
| 019  | Correspondence to TSG-C for their Multimedia Streaming review comments                                     | EDITOR                  |
| 020  | IMS_vs_MMD   | QUALCOMM                |
| 021  | Fast Call Setup System Requirements  | EDITOR                  |
| 022  | Fast Call Setup Comments   | EDITOR                  |
| 023  | TSG-S WG-1 HAG Agenda  | AD HOC CONVENER         |
| 024  | Draft correspondence to TSG-C Re:1xEV-DV   | EDITOR                  |
| 025  | WG-4 Fast Call Setup Requirements-Security Modifications   | CHAIR                   |



| <b>WG2: SYSTEM ARCHITECTURE - 3GPP2-S20-20020415-</b>     |   |                            |
|---|---|----------------------------|
| 001   | Meeting Agenda  | CHAIR                      |
| 002   | Previous Meeting Notes  | CHAIR                      |
| 003   | NAM 1.2.0   | CHAIR                      |
| 004   | Remand of S00-20020415-004/A/B/C  | TSG-S CHAIR                |
| 005   | Remand of S00-20020415-024 (Nokia)  | TSG-S CHAIR                |
| 006   | Remand of S00-20020415-012  | TSG-A                      |
| 007   | Remand of S00-20020415-014  | TSG-P                      |
| 008   | Remand of S00-20020415-018  | TR45 NRM ADHOC             |
| 009   | Remand of S00-20020415-028  | NEC/SPRINT<br>PCS/MOTOROLA |
| 010   | Remand of S10-20020415-014  | TSG-S WG4                  |
| 011   | Service Architecture  | LUCENT                     |
| 012   | NAM Changes for Location/Position Services                                      | LUCENT                     |
| 013   | NAM Updates   | ERICSSON                   |
| <b>WG3: PROJECT MANAGEMENT TEAM - 3GPP2-S30-20020415-</b> |   |                            |
| 001   | Agenda  | CHAIR                      |
| 002   | January Meeting Summary   | CHAIR                      |
| 003   | Correspondence to TSG-S.PMT and TSG-S re: Legacy MS Call Feature Stage-1 Status | CHAIR                      |
| 004   | 3GPP2 Workplan Gantt Chart  | CHAIR & PMT<br>COORDINATOR |
| 005   | 3GPP2 Stage 1 Development Prior to PMT Approval                                 | CHAIR, TSG-S.1             |
| 006   | 3GPP2-00032 - Legacy System Packet Surveillance Work Item Worksheet             | SPONSORS                   |
| 007   | 3GPP2-00033 - IP System Packet Surveillance Work Item Worksheet                 | SPONSORS                   |
| 008   | Enhanced Call recovery (ECR) Work Item Worksheet                                | SPONSORS                   |
| 009   | Process Document  | EDITOR                     |
| 010   | Revised LMSD Worksheet  | LUCENT                     |
| 011   | January Meeting Summary   | CHAIR                      |
| <b>SWG3.1: PROCESS MANAGEMENT - 3GPP2-S31-20020415-</b>   |   |                            |
|   |   |                            |
|   |   |                            |
| <b>SWG3.2: RELEASE PLANNING - 3GPP2-S32-20020415-</b>     |   |                            |
| 001   | Agenda  | CHAIR                      |
| 002   | Meeting Notes - Kobe - March 2002   | CHAIR                      |
| 003   | System Release Guide (SRG) v0.0.9   | EDITOR                     |
| <b>WG4: SECURITY - 3GPP2-S40-20020415-</b>                |   |                            |
| 001   | Agenda  | CHAIR                      |

|  |  |                  |
|--|--|------------------|
| 002  | Meeting Summary, Kobe, Japan, March 2002   | CHAIR            |
| 003  | WG4 Correspondence   | CHAIR            |
| 004  | Revised Stage 1 Requirements for FCS   | QUALCOMM         |
| 005  | ITU-T Presentation Cover   | QUALCOMM         |
| 006  | Network Firewall Protection in the MMD User Plane  | QUALCOMM         |
| 007  | cdma2000 Packet Data Security Assessment   | VERIZON WIRELESS |
| 008  | 3GPP network hiding requirements   | LUCENT           |
| 009  | Accounting and Auditing Security   | QUALCOMM         |
| 010  | 3GPP Specifications of relevance to 3GPP2  | ERICSSON         |
| 011  | Proposed correspondence to TSG-C SWG1.4  | QUALCOMM         |
| <b>WG5: OAM&amp;P - 3GPP2-S50-20020415-</b>  |  |                  |
|  |  |                  |
|  |  |                  |
| <b>CLOSING PLENARY - 3GPP2-S00-20010415-</b> |  |                  |
| 101  | WG1 Report   | WG1              |
| 102  | WG2 Report   | WG2              |
| 103  | PMT Report   | PMT              |
| 104  | WG4 Report   | WG4              |
| 105  | WG5 Report   | WG5              |
| 106  | Vision AdHoc Report  | VISION ADHOC     |
| 107  | Numbering AdHoc Report   | NUMBERING ADHOC  |
| 108  | Proposed correspondence to all TSGs regarding Multimedia Streaming Stage 1   | WG1              |
| 109  | Packet Data Surveillance - Legacy Stage 1 proposed publication version   | WG1              |
| 110  | Proposed correspondence to all TSGs regarding Packet Data Surveillance - IP Stage 1 proposed publication version   | WG1              |
| 111  | Proposed correspondence to all TSGs regarding Enhanced Call Recovery - Legacy Stage 1 proposed publication version | WG1              |
| 112  | Proposed correspondence to TSG-C regarding Stage 1 reviews   | WG1              |
| 113  | Proposed correspondence to TSG-N regarding MMD requirements  | WG1              |
| 114  | Proposed correspondence to TSG-C regarding 1xEV-DV requirements  | WG1              |
| 115  | Proposed correspondence to TSG-C regarding MMS review  | WG1              |
| 116  | Proposed correspondence to TSG-C regarding Multimedia Streaming review   | WG1              |
| 117  | Proposed correspondence to TSG-A regarding QoS   | WG1              |
| 118  | Proposed correspondence to TSG-P regarding NAM inquiries   | WG2              |
| 119  | Proposed correspondence to TSG-P regarding Broadcast/Multicast Stage 1   | WG1              |

|     |   |                    |
|-----|---|--------------------|
| 120 | Proposed correspondence to all TSGs regarding IOTA Stage 1  | WG1                |
| 121 | Proposed correspondence to all TSGs regarding Fast Call Setup System Requirements                           | WG1                |
| 122 | Summary of joint meeting on Equipment Numbering ID  | NUM ADHOC          |
| 123 | Proposed correspondence to all TSGs regarding NAM issues  | WG2                |
| 124 | Proposed correspondence to the 3GPP2 Secretariat and TSG-N regarding the UIM ID Administrator's Report      | EDITOR             |
| 125 | Proposed correspondence to TR45 NAG regarding TSB100-A  | WG2                |
| 126 | Proposed correspondence to all TSGs regarding teleconference review of the 3GPP2 System Release Guide       | WG3                |
| 127 | Proposed correspondence to TSG-A regarding Stage 1  | WG3                |
| 128 | S.P0070 3GPP2 Work Item, Stage 1, System Requirements Process   | WG3                |
| 129 | Notice regarding publication of S.R0069-0 v1.0  | 3GPP2 SECRETARIAT  |
| 130 | Correspondence dated 12 April 2002 regarding TR-45 UIM/ESN Ad Hoc Group Comments on ME Numbering JEM Report | TR45 UIM/ESN ADHOC |
| 131 | TR45 Meeting Summary - March 2002   | TIA                |
| 132 | WG4 comments on S00-20020311-041/N.P0039  | WG4                |
| 133 | ITU correspondence regarding future release schedule  | TSG-C              |
| 134 | Proposed correspondence to SDO leaders from SC Chair regarding Equipment ID JEM                             | NUM ADHOC          |
| 135 | Proposed correspondence to TSG-C regarding 1xEV-DV requirements   | ERICSSON           |

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| STATUS OF APPROVED TSG-S SPECIFICATIONS AND REPORTS |   |
|---|---|
| NUMBER  | TITLE   |
| S.R0003-0   | 3GPP2 System Capability Guide   |
| S.R0003-A   | 3GPP2 System Capability Guide   |
| S.R0004-0   | 3GPP2 Service Implementation Guide  |
| S.R0005-A   | 3GPP2 Network Reference Model (Rev. A)  |
| S.R0005-B   | 3GPP2 Network Reference Model (Rev. B)  |
| S.R0006-0   | Cellular Features Description (TIA/EIA-664-A Rev A)   |
| S.R0007-0   | User Selective Call Forwarding (Stage 1) v2.1   |
| S.R0008-0   | Answer Hold (Stage 1) v2.0  |
| S.R0009-0   | User Identity Module (Stage 1) (PN-4582)  |
| S.R0010-0   | Preferred Language Enhancement (Stage 1) (PN-4289) (Note 1)                                     |
| S.R0011-0   | Advice of Charge (Stage 1) (PN-4289)  |
| S.R0012-0   | Rejection of Undesired Annoying Calls (Stage 1) (PN-4289)                                       |
| S.R0013-0   | Global Emergency Call Origination (Stage 1) (Note 2)  |
| S.R0014-0   | Tandem Free Operation (Stage 1)   |
| S.R0015-0   | ISDN Interworking (Stage 1)   |
| S.R0016-0   | Automatic Code Gapping (Stage 1) v2.0   |
| S.R0017-0   | 3G Wireless Network Management System High Level Requirements (Stage 1) (Note 4)                |
| S.R0018-0   | Prepaid Services (Stage 1) (PN-4287) (Note 4)   |
| S.R0019-0   | Location Based System Services (LBSS) Stage 1 v1.0  |
| S.R0021-0   | Video Streaming Stage 1 v1.0  |
| S.R0022-0   | Video Conferencing Stage 1 v1.0   |
| S.R0023-0   | High Speed Data Enhancements for cdma2000 1x Stage 1 - Data Only v2.0                           |
| S.R0024-0   | WLL Stage 1 v1.0  |
| S.R0025-0   | WPP Stage 1 v1.0  |
| S.R0026-0   | High Speed Data Enhancements for cdma2000 1x Stage 1 - Integrated Data and Voice (1xEV-DV) v1.0 |
| S.R0027-0   | Personal Mobility Stage 1 v1.0  |
| S.S0028-0   | OAM&P Specification v1.0  |
| S.S0028-0   | OAM&P Specification v2.0  |
| S.S0028-0   | OAM&P Specification v3.0  |
| S.S0028-A   | OAM&P Specification v1.0  |
| S.R0029-0   | Access control based on call type Stage 1 v1.0  |
| S.R0030-0   | Multicast/Broadcast Stage 1 v1.0  |
| S.R0032-0   | ESA and ESP Stage 1 v1.0  |
| S.P0033-0   | Realm Configured Packet Data Session Dormancy Timer Stage 1                                     |
| S.R0034-0   | UIM ID Assignment Guidelines  |
| S.R0035-0   | QoS Stage 1   |
| S.R0045-0   | Stage 1 template- User Features   |
| S.R0046-0   | Stage 1 template- System Requirements   |
| S.R0047-0   | Stage 1 template- Short Form  |
| S.R0048-0   | MEID Stage 1 v1.0   |
| S.R0050-0   | EMS Stage 1 v1.0  |
| S.R0051-0   | 3GPP2 Stage 1 Development Process   |
| S.S0053-0   | Common Cryptographic Algorithms   |
| S.S0054-0   | Interface Specification for Common Cryptographic Algorithms                                     |
| S.S0055-0   | Enhanced Cryptographic Algorithms   |
| S.R0060-0   | Removable User Identity Module (R-UIM) Mobile Equipment (ME) Interface Testing                  |
| S.R0067   | Enhanced Call Recovery Stage 1  |
| S.R0069-0   | Header Stripping and Generation Stage 1   |

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| STATUS OF APPROVED TSG-S SPECIFICATIONS AND REPORTS |   |
|---|---|
| NUMBER  | TITLE   |
| S.R0071   | Legacy System Packet Data Surveillance Requirements |
| S.R0072   | IP System Packet Data Surveillance Requirements     |

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| STATUS OF TSG-S PROJECTS IN DEVELOPMENT |  |                |
|---|--|----------------|
| NUMBER                                  | TITLE  | STATUS         |
| S.P0020                                 | Location Information Restriction (LIR) Stage 1   | In development |
| S.P0036                                 | All IP System Capability Guide   | In development |
| S.P0037                                 | All IP NAM   | In development |
| S.P0038                                 | All IP Evolution Guide   | In development |
| S.P0039                                 | All IP Message Flows   | In development |
| S.P0040                                 | Public and Private User Identities   | In development |
| S.P0041                                 | UIM Support in All IP Networks   | In development |
| S.P0042                                 | IP Multimedia Domain Registration for Multimedia Services  | In development |
| S.P0043                                 | IP Multimedia Domain Authorization   | In development |
| S.P0044                                 | Rescue Channel Stage 1   | In development |
| S.P0049                                 | Requirements for a 3G Network Based on Internet Protocol ("All-IP") with Support for TIA/EIA-41 Interoperability | In development |
| S.P0052                                 | 3GPP2 System Release Guide   | In development |
| S.P0057                                 | IP Based Service Architecture System Requirements  | In development |
| S.P0058                                 | IP Multimedia Domain System Requirements   | In development |
| S.P0059                                 | LMSD Step-1 System Requirements  | In development |
| S.P0061                                 | Instant Messaging  | In development |
| S.P0062                                 | Presence Service   | In development |
| S.P0063                                 | Subscribed Data Rate   | In development |
| S.P0064                                 | Multimedia Messaging Stage 1   | In development |
| S.P0065                                 | Fast Call Setup Stage 1  | In development |
| S.P0066                                 | IP Based Location Services Stage 1   | In development |
| S.P0068                                 | LLA ROHC Stage 1   | In development |
| S.P0070                                 | Work Item, Stage 1, System Requirements Process  | In development |
| S.P0073                                 | Internet Over-the-Air Handset Configuration Management   | In development |

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**3GPP2 QUORUM ROLL CALL**  
**TSG-S (Systems and Services Aspects)**  
 April 18, 2002

| <b>INDIVIDUAL MEMBER COMPANY</b> | <b>Attendance<br/>04/15/2002</b> | <b>Attendance<br/>4/18/2002 AM</b> | <b>Attendance<br/>4/18/2002 PM</b> | <b>Consecutive<br/>Mtgs Missed</b> | <b>Quorum Status<br/>at Mtg Start</b> |
|----------------------------------|----------------------------------|------------------------------------|------------------------------------|------------------------------------|---------------------------------------|
| AGILENT TECHNOLOGIES             |                                  |                                    |                                    | 3                                  | 0                                     |
| ALLTEL                           | 1                                |                                    |                                    | 0                                  | 1                                     |
| BELL MOBILITY                    | 1                                |                                    |                                    | 1                                  | 0                                     |
| CISCO                            |                                  |                                    |                                    | 1                                  | 0                                     |
| COMVERSE                         | 1                                |                                    |                                    | 0                                  | 1                                     |
| DOCOMO US LABORATORIES           | 1                                |                                    |                                    | 0                                  | 1                                     |
| ERICSSON                         | 1                                |                                    |                                    | 0                                  | 1                                     |
| ETRI                             |                                  |                                    |                                    | 1                                  | 0                                     |
| FRANCE TELECOM                   |                                  |                                    |                                    | 0                                  | 0                                     |
| FUJITSU                          | 1                                |                                    |                                    | 0                                  | 1                                     |
| HITACHI                          |                                  |                                    |                                    | 1                                  | 1                                     |
| HYUNDAI                          | 1                                |                                    |                                    | 0                                  | 1                                     |
| KDDI                             | 1                                |                                    |                                    | 0                                  | 1                                     |
| KT FREETEL                       | 1                                |                                    |                                    | 0                                  | 1                                     |
| LG ELECTRONICS                   | 1                                |                                    |                                    | 0                                  | 1                                     |
| LG TELECOM                       | 1                                |                                    |                                    | 0                                  | 1                                     |
| LUCENT                           | 1                                |                                    |                                    | 0                                  | 1                                     |
| MOTOROLA                         | 1                                |                                    |                                    | 0                                  | 1                                     |
| NEC                              | 1                                |                                    |                                    | 0                                  | 1                                     |
| NOKIA                            | 1                                |                                    |                                    | 0                                  | 1                                     |
| NORTEL NETWORKS                  | 1                                |                                    |                                    | 0                                  | 1                                     |
| OPENWAVE SYSTEMS                 | 1                                |                                    |                                    | 0                                  | 1                                     |
| QUALCOMM                         | 1                                |                                    |                                    | 0                                  | 1                                     |
| RESEARCH IN MOTION               | 1                                |                                    |                                    | 0                                  | 1                                     |
| SAMSUNG                          |                                  | 1                                  |                                    | 0                                  | 1                                     |
| SEROME TECHNOLOGY                |                                  |                                    |                                    | 3                                  | 0                                     |
| SK TELECOM                       | 1                                |                                    |                                    | 3                                  | 0                                     |
| SPRINT PCS                       | 1                                |                                    |                                    | 0                                  | 1                                     |
| TANTIVY COMMUNICATIONS           | 1                                |                                    |                                    | 0                                  | 1                                     |
| TEXAS INSTRUMENTS                |                                  |                                    |                                    | 3                                  | 0                                     |
| VERIZON WIRELESS                 |                                  |                                    |                                    | 0                                  | 1                                     |
| <b>TOTALS</b>                    | <b>20</b>                        | <b>1</b>                           | <b>0</b>                           |                                    | <b>23</b>                             |
| <b>QUORUM CALCULATION</b>        | <b>87%</b>                       | <b>4%</b>                          | <b>0%</b>                          |                                    |                                       |
| <b>ADDITIONS</b>                 |                                  |                                    |                                    |                                    |                                       |
| TELECOMMUNICATIONS SYSTEMS       | 1                                |                                    |                                    |                                    | 0                                     |
|                                  |                                  |                                    |                                    |                                    | 0                                     |
|                                  |                                  |                                    |                                    |                                    | 0                                     |
|                                  |                                  |                                    |                                    |                                    | 0                                     |
| <b>OBSERVERS AND GUESTS</b>      |                                  |                                    |                                    |                                    |                                       |
| ARIB                             | 1                                |                                    |                                    |                                    |                                       |
| TELCORDIA                        |                                  |                                    | 1                                  |                                    |                                       |

**QUORUM STATUS NOTES:**

- HIGHLIGHTED ZERO = Must attend 2 consecutive mtgs to be added to quorum list
- NON-HIGHLIGHTED ZERO = Will be added to quorum list next mtg if they attend
- P = Letter of Proxy in effect