1 **Title:**

2   APPROVED SUMMARY OF ALL IP ADHOC MEETING
3   for the period of 3-5 October 2000 in Chicago. IL

4 **Source:**

5   Clifton J. Barber

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9 **Abstract:**

10 This document is a summary of the discussions from the 3GPP2 ALL IP AdHoc meetings held at the
11 Ambassador West (Wyndham) Hotel in Chicago, IL during the period of 3-5 October 2000.

12 **Recommendation:**

13 For review and approval.

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15 **Notice:**

1   During the period of 3-5 October 2000, a meeting of 3GPP2 All IP AdHoc was held at the
2   Ambassador West (Wyndham) Hotel in Chicago, IL. This report is intended to summarize those
3   discussions.

4   1.   CALL TO ORDER AND OPENING REMARKS: The meeting was called to order on
5   3 October 2000 at 9:15 AM local time by All IP AdHoc Co-Chairs Mark Lipford (Sprint
6   PCS) and Alberto Gutierezz (Motorola). The sign-in sheets indicate that approximately 36
7   persons were in attendance.

8   Mark noted the primary objective of this meeting was to achieve baseline text for the All IP
9   Requirements, NAM, and Workplan documents.

10   2.   IPR POLICY QUERY: The Chair referred the participants to the copyright statement on the
11   agenda and noted that submission of a contribution at this meeting would be assumed as
12   commitment to that copyright statement.

13   3.   ATTENDANCE REGISTRATION: An electronic sign-in sheet was distributed for the
14   registration of attendees.

15   4.   AGENDA REVIEW AND APPROVAL: The agenda was presented and approved without
16   objection as modified by the discussion (ALLIP-20001003-001R1).

17   5.   CONTRIBUTIONS: ASSIGNMENT TO AGENDA ITEMS: Contributions (ALLIP-
18   20001003-000R3) were assigned to agenda items - all in soft copy format only.

19   6.   MEETING SUMMARY APPROVAL: The meeting summary for the September 2000
20   meeting in Seoul, Korea (ALLIP-20001003-002) was presented and approved without
21   objection as submitted.

22   7.   CORRESPONDENCE: None.

23   8.   REPORTS:

24   a.   3GPP2: No report.

25   b.   MWIF: No report.

26   c.   CDG: No report.

27   d.   3GPP: No report.

28   e.   OTHERS: None.

29   9.   OLD BUSINESS

30   a.   STAGE 1 REQUIREMENTS

31   •   The Requirements document v0.6.3 (ALLIP-20001003-004) was presented
32   by Henrik Basilier (Ericsson). This document was marked with all of the
33   changes which were approved at the Seoul, Korea meeting. The changes were
34   approved without objection as presented.

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- Sprint PCS recommended changes to the Requirements document (ALLIP-20001003-008) were presented by Sprint PCS. The single technical change to section 6.1.4 was accepted without objection. The editorial changes were accepted subject to the Requirements Editor discretion. These changes were remanded to the acting Requirements Editor, Michel Houde (Ericsson), for inclusion into the Requirements document.

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- The group decided that the network evolution descriptions should not be duplicated in both the Requirements and NAM documents and the description should be focused in the Requirements document. The acting Requirements editor, the NAM Editor, and Betsy Kidwell (Lucent) were assigned the task of transferring the text from section 5 of the NAM document into section 5 of the Requirements document as appropriate.

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- The updated Requirements document v0.6.4 (ALLIP-20001003-004R2) was approved without objection as baseline text.

15   b.   NAM

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- The All IP NAM document v0.8.0 (ALLIP-20001003-003) was presented by the NAM Editor. The Editor noted minor editorial errors which needed to be addressed.

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NOTE: This portion of the meeting was conducted as a NAM FG meeting and was facilitated by NAM FG Chair, Mike Dolan (Lucent).

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Regarding contributions related to specific recommendations on the existing NAM document:

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- A Proposal to add an Authentication Function to the TIA/EIA-41 Support functions (ALLIP-20001003-006) was presented by Ericsson. The contribution proposed a solution to the problem that there is no entity defined to handle L2 authentication for the TIA/EIA-41 Domain (i.e., functionality provided by the Authentication Center in the current system deployments). The proposed solution is based on the assumption that there is a single subscription (i.e., a single, common database) between both the TIA/EIA-41 and IP Multimedia Domains even if two (2) separate authentication procedures are required.

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- A contribution entitled "ANSI-41 Domain Modifications" (ALLIP-20001003-019) was presented by Lucent. This contribution proposed modifications to support authentication and WIN capabilities and, as such, the authentication proportion was considered in conjunction with the changes proposed by the Ericsson document above.

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- During the review of both these contributions on authentication, there was some discussion on whether DIAMETER will be used on the specific interface associated with authentication especially considering the text in the NAM document on assumed protocols. The alternative was to use the TIA/EIA-41 authentication function for this purpose.

1 • As a part of these discussions on authentication, the NAM FG Chair noted that
2 the selected proposal would need to be included in the authentication and
3 authorization plane (ALLIP-20001003-023) from Motorola. In addition, the
4 group agreed to use this document to describe the authentication process
5 without committing to the specific proposals either from Ericsson (ALLIP-
6 20001003-006) or Lucent (ALLIP-20001003-019).

7 • A small group (i.e., the Over the Lunch FG) prepared a note to be added to
8 TIA/EIA-41 Domain Support section of the NAM document (ALLIP-
9 20001003-006R1) as a compromise in the positions noted in the previously
10 noted Ericsson and Lucent contributions. This text identified the issue of
11 concern and noted that it was for further study. This text was accepted without
12 objection.

13 • A contribution on proposed changes to MGW and MRF (ALLIP-20001003-
14 013) was presented by Ericsson. This contribution proposed that the MGW
15 handle resources for support of TIA/EIA-41 services including legacy
16 supplementary and WIN services (i.e., call waiting, conference bridge, tone
17 generation, announcement playback, etc.). The MRF would handle the similar
18 services for the IP Multimedia Domain. There was no consensus on this
19 approach but the AdHoc agreed that a note should be added to the NAM
20 document (similar to the note included in ALLIP-20001003-006R1) which
21 indicates that the issue is for further study. That revised text (ALLIP-
22 20001003-013R1) was approved without objection. One (1) other suggestion
23 that the MGW and MRF be combined into a single entity was not accepted
24 until such time as a specific contribution on this subject can be reviewed.

25 • A contribution entitled "Evolution: proposed new wording for air interface
26 description" (ALLIP-20001003-014) was presented by Ericsson. The NAM
27 FG Chair noted that this contribution referred to text in section 5 of the NAM
28 document which, as previously agreed, would be transferred to the
29 Requirements document. This text was accepted without objection as modified
30 by the discussion (ALLIP-20001003-014R3).

31 • A contribution proposing additional text to MM (ALLIP-20001003-015) was
32 presented by Ericsson. The modifications proposed by this contribution were
33 based on the analysis of the call flow on call termination to a dormant MMed
34 MS. Portions of the proposed text were accepted without objection based on
35 the discussion (ALLIP-20001003-015R1).

36 • A contribution entitled "MM entities functions" (ALLIP-20001003-017) was
37 presented by LGE. This contribution raised issues related to the MM which
38 were similar in nature to the issues raised by the previous Ericsson contribution
39 (ALLIP-20001003-015). LGE accepted the compromise which was agreed in
40 that previous discussion.

1   •   A contribution entitled "Network Capability Gateway" (ALLIP-20001003-
2   021) was presented by Lucent. This contribution was a revision to a
3   contribution presented in Seoul but with the subject entity renamed from
4   Services Gateway to Network Capability Gateway. There was substantial
5   discussion on whether or not the NCG should be merged with the SCM. There
6   was no consensus on that suggestion. With the NCG as a separate network
7   entity, this contribution was accepted without objection as modified by the
8   discussion (ALLIP-20001003-021R2). In addition, the contributor noted that
9   figure 3.1.6b also needs to be modified to include the NCG. The noted
10   modification to that figure was also approved for implementation by the NAM
11   Editor.

12   •   A proposal for changes to the All IP RAN (ALLIP-20001003-025) was
13   presented by Hyundai. This document proposed elaboration of the BSC into
14   two (2) sub-components: Radio Network Control System (RNCS) and Radio
15   Bearer Function (RBF). Since this elaboration provided no substantial benefit
16   to the activities of the AdHoc at this stage of the NAM development, the
17   contributor agreed to submit this contribution to TSG-A for their consideration
18   when further elaboration will be a primary consideration. The NAM FG Chair
19   did note that this contribution noted a recommendation for inclusion of a
20   signaling interface between the Access Gateway and the cdma2000 access
21   network. However, with the permission of Hyundai, discussion on that topic
22   was deferred to a subsequent contribution.

23   •   Proposed text changes to TIA/EIA-41 Domain, section 3.3 (ALLIP-
24   20001003-027) was presented by Ericsson. The proposed change specified
25   that TR45 NRM (TSB-100) functional entities (i.e., OTAF, etc.) are implicit
26   entities in the TAI/EIA-41 Domain even though they are not explicitly shown in
27   the All IP NAM diagrams. This text was accepted without objection as
28   modified (ALLIP-20001003-027R1).

29   •   Sprint PCS recommended changes to the NAM (ALLIP-20001003-007R1)
30   was presented. This contribution proposed the addition of a signaling interface
31   between the Access Gateway and the cdma2000 access network as a separate
32   reference point and the labeling of the existing bearer interface as a reference
33   point. This proposal was the same as the issue previously raised by Hyundai
34   (ALLIP-20001003-025). This proposal was accepted without objection with
35   a minor editorial modification based on the discussion (ALLIP-20001003-
36   007R2).

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- During the course of the NAM discussions, there was general consensus among the FG participants that specification of the protocol to be used at each reference point in the NAM document should be the decision of the TSG(s) responsible for development of that reference point and should specifically not be included in the NAM document. Based on that consensus, the group agreed to eliminate associated text (i.e., "Reference point x employs signaling standard _____") from the All IP NAM document.

- There was additional discussion regarding the interconnectivity of the Position Server in the NAM. The primary concern was whether or not accesses to the Position Server is protected by AAA. The primary concern was overload of the AAA if it is required to be "in the loop" for every subsequent access for location information by a previously authorized application. The group agreed without objection that the Service Application will submit its requests for location information to the new NCG entity which will get authorization from the AAA and then process all future location requests through to the Position Server. The NAM Editor and the contributor of the NCG contribution agreed to modify drawings as appropriate to implement this consensus strategy. However, since there were still outstanding concerns related to privacy applications/conditions that cannot be satisfied by an initial authorization from AAA, a specific note was added to the description of the NCG entity to identify these concerns for further investigation.

Regarding call flow analyses:

- A contribution on suggested changes to All-IP call flows (ALLIP-20001003-022) was submitted by Lucent. This contribution proposed changes to the call flow design requirements, assumptions, and call flows that the NAM FG has been using to validate the NAM design (ALLIP-20001003-012). The recommendations in this contribution were reviewed in detail in conjunction with the reference call flow document. All recommendations were accepted in principle except for the addition of "(PPP)" to the text for Link Layer Establishment step (between step 15b and step 16) in figure 4.1.1.

- The example call flows for NAM validation (ALLIP-20001003-012) was presented by Ericsson. This is the primary document that the FG has been using to validate the NAM design but it had been updated based on the agreements reached in the discussions at the Seoul meeting.

During the discussion, some concern was expressed by 3COM regarding the use of specific protocols (e.g., SIP) in specific call flows without analyzing the full detail of that protocol and the use of more generic terms was proposed. The FG agreed that, in cases where the call flows are indeed protocol specific, the assumed protocol should be clearly identified. 3COM accepted the inclusion of an explanatory note in the call flow section of the NAM which clearly noted that these call flows may be drastically changed during Stage 2/Stage 3 development and, based on that note, the specific protocol references were retained.

- A contribution entitled "Further call scenario list" (ALLIP-20001003-018) was presented by LGE. These additional call flows were added to the Open Items List.

- Substantial modifications to example call flows for NAM validation were approved without objection (ALLIP-20001003-012R2) for incorporation in the NAM document based on extensive review of the detailed call flows, including the following:
    - Access registration and Mobile IP (MIP) registration in the IP Multi-media domain with the Home Agent (HA) allocated in the visited network
    - SCM discovery and Registration (I-SCM in proxy mode)
    - SCM discovery and Registration (I-SCM in Redirect mode)
    - Service discovery by use of Advertising Agent
    - Originating MMed call to PSTN from an All-IP MS in a visited MMed domain
    - Incoming call from legacy PSTN to an ALL-IP MS active in a visited MMed domain

Regarding contributions related to specific views:

- A contribution on the Authentication and Authorization Plane (ALLIP-20001003-023) was presented by Motorola. This contribution had been updated based on the discussions on the previous version in Seoul. This contribution was accepted without objection as modified by the discussion (ALLIP20001003-023R2).

- A contribution entitled "Mobile IP Roaming Handoff Interactions Plane" (ALLIP-20001003-024) was briefly introduced by Motorola. This contribution raised the issue of whether or not voice conversations from the IP MMed to the TIA/EIA-41 Domain or legacy system must be supported. Although there was no consensus on whether this handoff was feasible, based on lack of time for detailed consideration, it was added to the Open Items List. However, the requirement of handoff from the TIA/EIA-41 Domain to the legacy system was confirmed.

1   •   An updated contribution on IP network domain views (ALLIP-20001003-016)
2   was presented by LGE. This issue was already listed on the Open Items List
3   and was retained in that status.

4   Regarding the Open Items List:

5   •   The NAM Open Items List v4.1 (ALLIP-20001003- 003AR1) was presented
6   by the NAM FG Chair. He noted that many items had been closed based on
7   the diligent efforts of the AdHoc team members. The final version of this Open
8   Item List, with all references to closed items deleted, will be passed on as a part
9   of the AdHoc submission to the SC for consideration by the TSGs that may
10   implement the All IP development effort.

11   The NAM document Editor indicated that the updated version of the NAM document
12   (v0.9.0) would be forwarded to the Secretary no later than Monday 9 October 2000.

13   c.   3GPP2 WORKPLAN

14   •   The All IP Workplan document (ALLIP-20001003-005R1) was presented as
15   the working version to be considered for this meeting.

16   •   Sprint PCS recommended changes to the 3GPP2 All IP Workplan (ALLIP-
17   20001003-009) was presented and the proposed changes were reviewed.

18   During this discussion, the group discussed the process for submitting this
19   workplan and the associated NAM and requirements documents to the SC.
20   The group agreed without objection that the documents would be
21   recommended for approval by the SC as preliminary documents to be
22   remanded to all TSGs. In addition, TSG-S would be tasked with completing
23   the NAM and requirements documents for official publication by 3GPP2 and
24   subsequent formal ballot by the SDOs as the SDOs may choose. This strategy
25   will be added to the Workplan document by the Editor for review by the group.

26   The changes proposed in the Sprint contribution were accepted without
27   objection as modified by the discussion (ALLIP-20001003-009R1) except that
28   most of the proposed changes to the responsibility matrix were deferred until
29   the feedback from the TSGs can be incorporated and the list of NAM
30   reference points and entities can be finalized.

31   •   Correspondence from TSG-S in response to the distributed All IP Workplan
32   (ALLIP-20001003-010) was presented. TSG-S indicated that, based on their
33   workload for Release B activities, they would be unable to review the workplan
34   document in detail in time to respond to the AdHoc. They did indicate that they
35   would be reviewing the document at their Kyoto meeting and would be
36   prepared with their comments and recommendations at the SC meeting.

1 • A contribution on Stage 1 requirements development for the All IP Network
2 (ALLIP-20001003-011) was presented by Oki Network Technologies. This
3 contribution recommended that Stage 1 requirements not be included in the
4 responsibilities of the All IP coordinating group. Since no change was
5 recommended to the Workplan document, this contribution was accepted as
6 FYI.

7 • A contribution on All IP standards development timeline (ALLIP-20001003-
8 020) was presented by the Evolution FG. The phased development timelines
9 were proposed as follows:

10 • Phase 0 encompasses standards that are already complete and have
11 been balloted by the SDOs.
12 • Phase 1 encompasses standards that are currently being defined in
13 3GPP2 and that are expected to be balloted by the SDOs at the end of
14 2000 or early 2001.
15 • Phase 2 includes standards development work that will begin in early
16 2001 and complete by the latter half of 2002, approximating a 12 - 18
17 month development cycle.
18 • Phase 3 includes standards development work that will begin in the
19 latter half of 2002 and complete by late 2003 or early 2004,
20 approximating a 12 - 18 month development cycle.

21 NOTE: Completion of Phase 2 and Phase 3 is defined as TSG approval.

22 By comparison with the current 3GPP workplan:

23 • R4 is scheduled for mid-2001 and is an interim release.
24 • R5 is scheduled for the end of 2001 and adds the full multimedia call
25 model.

26 There was substantial concern expressed regarding Phase 2 completion any
27 later than early 2002.

28 The following revised wording was accepted without objection for
29 incorporation into the Workplan document:

30 • "Phase 2 includes standards development work that will begin in
31 January 2001 and, assuming a 12 month development cycle, will be
32 complete by December 2001 for release to the SDOs."
33 • "Phase 3 includes standards development work that will begin slightly
34 before the completion of Phase 2 and will be approximately a 12-month
35 development cycle."
36 • "The All IP coordinating group will be responsible for defining the
37 contents of Phase 2 consistent with these timelines."

38 • The updated Workplan document was approved without objection as modified
39 by the discussion was approved as baseline text.

1   10.   NEW BUSINESS:

2   •   The group agreed that all contributions which the AdHoc did not get a chance to
3   consider would not be forwarded as a part of the AdHoc recommendations. The
4   contributors of those contributions (including ALLIP-20001003-026 and ALLIP-
5   20001003-028) were advised that they should resubmit their contributions to the
6   applicable TSG if the All IP development activity is approved.

7   •   The Chair provided separate DDR forms for each of the three (3) documents being
8   considered. These forms allow multiple comments for a single document on a single
9   form. These forms must be used to submit comments on the documents and
10   replacement text is mandatory for consideration.

11   •   The group agreed that, in addition to the Requirements, NAM, and Workplan
12   documents being submitted to the SC, the NAM Open Items list will also be submitted
13   as useful information to be transferred to the TSGs for consideration in the on-going
14   All IP development activities.

15   •   The AdHoc Co-Chair officially disbanded all All-IP AdHoc focus groups.

16   •   The AdHoc Co-Chair named Mike Dolan (Lucent) as the V&V Chair for all
17   documents.

18   11.   FUTURE MEETINGS

19   •   18-20 October 2000   V&V meeting - Essex Inn in Burlington, VT

20   •   25 October 2000   All IP AdHoc Conference Call for final acceptance of
21   documents (5:30 PM Eastern US time on 25 Oct.,
22   6:30 AM Japan on 26 Oct.)

23   12.   REVIEW OF ASSIGNMENTS:

24   •   The NAM Editor will forward v0.9.0 of the NAM document to the Secretary no later
25   than Monday 9 October 2000. The pdf file will be used for distribution and the source
26   files will be retained by the Secretary for reference.

27   •   The following documents are considered to be baseline and have been remanded to the
28   All IP AdHoc participants for V&V:

29   •   All IP NAM v0.9.0

30   •   All IP Requirement v0.6.4

31   •   All IP Workplan v0.0.3

32   Adobe Acrobat (pdf) copies of all baseline documents will be distributed by the
33   Secretary no later than Monday 9 October 2000 via the e-mail exploder. These pdf
34   files must be used as the basis for the V&V review and any related comments.

35   •   All AdHoc participants must review the baseline documents and submit their comments
36   or concerns to the All IP V&V Chair, Mike Dolan (Lucent), at mfdolan@lucent.com
37   with a copy to the All IP exploder on or before close of business West Coast US time
38   on 16 October 2000.

1 • All comments and concerns MUST include suggested replacement text or the
2   comment will not be considered.

3 • All comments and concerns MUST be submitted on the appropriate DDR form
4   from the following list:

5   • NAM review comments

6   • REQTS review comments

7   • Workplan review comments

8 These forms were made available on the AdHoc server at this meeting and have already
9 been distributed via the All IP AdHoc e-mail exploder.

10 • The Secretary will forward the source files for all of the baseline documents and the
11   second draft of this meeting summary to the V&V Chair on or before close of business
12   West Coast US time on 16 October 2000 for use at the V&V meeting.

13 • The V&V meeting in Burlington, VT (18-20 October 2000) will be used to review all
14   comments and concerns for all output documents. The NAM and Requirements
15   documents are intended to be finalized at that meeting and the Workplan document will
16   be completed except that the detailed, non-editorial changes to the responsibility matrix
17   and the final proposed meeting schedule will both be deferred until the input from the
18   TSGs can be considered. The responsibility matrix will, however, be updated to reflect
19   the final NAM references points and network entities but the old reference
20   points/entities will be retained temporarily to facilitate incorporation of comments from
21   the TSGs.

22 • Acrobat (pdf) versions of the following documents will be distributed by the V&V Chair
23   via the All IP e-mail exploder on or before close of business US central time on
24   Monday 23 October 2000:

25   • All IP NAM v0.10.0 with all V&V changes incorporated ready for final
26   approval by the AdHoc.

27   • All IP Requirements v0.7.0 with all V&V changes incorporated ready for final
28   approval by the AdHoc.

29   • All IP Workplan v0.1.0 with all V&V changes incorporated but still requiring
30   incorporation of input from the TSGs.

31 The source files of these output documents will also be forwarded to the Secretary for
32 reference.

33 • Comments from the TSGs on the Workplan will be considered at the final AdHoc
34   meeting (25 October 2000 conference call). In addition, three (3) output documents
35   will then be approved by the AdHoc for submission to the 3GPP2 SC. The pdf and
36   source files of all output documents will be delivered to the Secretary if they are
37   modified by this approval process.

1   •   The AdHoc Co-Chair(s) will make the final All IP AdHoc report to the 3GPP2 SC at
2   the 2 November 2000 meeting. The approved output documents will be formally
3   submitted along with the final version of the NAM Open Items List. The final AdHoc
4   conference call meeting report will also be submitted. It is expected that the SC will
5   disband the All IP AdHoc at that time.

6   13.   OPEN DISCUSSION: None.

7   14.   ADJOURNMENT: The meeting was adjourned at 12:15 PM local time on 5 October 2000.

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

NUMBER	SUBJECT	SOURCE
ALLIP-20001003-		
000	CONTRIBUTION REGISTER	SECRETARY
001	AGENDA	CHAIR
002	Meeting summary - September 2000 - Seoul, Korea	SECRETARY
003	NAM V0.8.0	EDITOR
004	Requirements v0.6.3	EDITOR
005	All IP workplan - draft baseline	EDITOR
006	Proposal to add an Authentication Center to the ANSI-41 Support functions	ERICSSON
007	Recommended changes to NAM	SPCS
008	Recommended changes to Requirements	SPCS
009	Recommended changes to All IP workplan	SPCS
010	All IP Workplan	TSG-S
011	Stage 1 requirements development for All IP Network	OKI
012	Call flows for NAM validation	ERICSSON
013	Proposed text changes to MRF and MGW	ERICSSON
014	Evolution: proposed new wording for air interface description	ERICSSON
015	Additional text to MM	ERICSSON
016	IP Network Domain Views	LGE
017	MM entities function	LGE
018	Further call scenario list	LGE
019	ANSI-41 Domain modifications	LUCENT
020	ALL IP standards development timeline	EVOLUTION FG
021	Network capability gateway	LUCENT
022	Suggested changes to All IP call flows	LUCENT
023	Authentication and authorization plane	MOTOROLA
024	Mobile IP roaming handoff interactions plane	MOTOROLA
025	NRM changes	HYUNDAI
026	Low interruption handoffs	LUCENT
027	Proposed text changes to TIA/EIA-41 Domain, section 3.3	ERICSSON
028	Resource allocation/release call flow	SAMSUNG

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