Title:

APPROVED SUMMARY OF ALL IP ADHOC MEETING
for the period of 17-19 July 2000 in Boulder, CO

Source:

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SECRETARY

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Abstract:

This document is a summary of the discussions from the 3GPP2 ALL IP AdHoc meetings held at the Regal Harvest House in Boulder, CO during the period of 17-19 July 2000.

Recommendation:

For review and approval.

Notice:

During the period of 17-19 July 2000, a meeting of 3GPP2 All IP AdHoc was held at the Regal Harvest House in Boulder, CO. This report is intended to summarize those discussions.

NOTE:

- *Based on logistical problems during the meeting, the actual discussions jumped back and forth between agenda items. For readability purposes and with the approval of both Co-Chairs, this report summarizes all discussions for a single agenda item under a single section of this document regardless of the order of discussion.*

- *The NAM FG had substantial meeting time during this meeting session but those meetings are not documented in this report.*

The meeting was called to order on 17 July 2000 at 9:20 AM local time by All IP AdHoc Co-Chairs, Mark Lipford (Sprint PCS) and Alberto Gutierrez (Motorola). The sign-in sheets indicate that approximately 50 persons were in attendance.

- The Chair noted that some of the contributions did not include the required 3GPP2 copyright statement. The Chair referred the participants to the copyright statement on the agenda and noted that submission of a contribution at this meeting would be assumed as commitment to that copyright statement. No contributions were withdrawn as a result of this statement.

- The Chair stressed the following objectives for the AdHoc:
    - Baseline NAM document by the end of this meeting.
    - Change request contributions only to requirements and NAM baseline documents in the future.
    - Both documents released to V&V at SFO meeting in August (possible interim conference call may be required)
    - Finalize all documents and workplan issues at final meeting in Seoul in September.

- The agenda was presented and approved without objection as submitted (ALLIP-20000717-001R1).

- Contributions (ALLIP-20000717-000R1) were assigned to agenda items - all in soft copy format only. However, during the course of the meeting, Sprint PCS decided to withdraw contribution number ALLIP-20000717-014.

- The meeting summary for the June 2000 meeting in Vancouver, BC (ALLIP-20000717-002) was presented and approved without objection as submitted.

- CORRESPONDENCE:
    - Correspondence dated 13 July 2000 from TSG-S to the SC Chair regarding the status of TSG-S 1x enhancement activities (ALLIP-20000717-015) was presented as FYI.
    - Correspondence dated 7/14/00 from TSG-C to the SC Chair regarding the status of TSG-C 1x enhancement activities (ALLIP-20000717-016) was presented as FYI.

- REPORTS:
    - 3GPP2: No report. Discussion on the proposed Chair's report to the upcoming SC meeting (ALLIP-20000717-013) was deferred until the completion of this meeting.
    - MWIF: A verbal report from Rich Robinson (Sprint PCS) indicated the following:
        - Layered function architecture (LFA) is still in development
        - Network Reference Architecture (NRA) is still in development
        - No major differences as compared to 3GPP2 All IP activities.
        - Approval reviews of both documents will begin at the next meeting.
        - Once approved, these documents will be referred to both 3GPP and 3GPP2.
    - CDG: WI&IS group charter still being reviewed by CDG based on lack of participation in its current state.
    - 3GPP: The All IP document (23-821) was approved in late June and it is now being subdivided for incorporation into other 3GPP specifications by the end of August. By year end, a plan for release 2000 should be available. A zip file containing soft copies of contributions from that effort were made available to meeting participants on the server.
    - OTHER: A contribution on a proposed relationship between 3GPP and IETF (ALLIP-20000717-017) was presented as FYI.

        In addition, a verbal report indicating that TSG-P had identified some concerns regarding the use of IPv6. Correspondence regarding the issues of concern will be forthcoming.

        A verbal report on the TTA All IP AdHoc activities was presented as FYI.

- OLD BUSINESS
    - NAM
        - The NAM document v0.1.0 (ALLIP-20000717-003) was noted as FYI only.
        - The NAM document v0.2.0 (ALLIP-20000717-025) was presented and reviewed in detail. This document included all updates discussed in the most recent NAM AdHoc conference call.
        - The Chair directed that all detailed discussions of the NAM contributions would be postponed to the NAM Focus Group meetings which he scheduled for that evening. Questions on subsequent contributions were restricted to clarification questions only.

- A contribution on positioning of the All IP domains (ALLIP-20000717-004) was presented by Ericsson. This document described the drivers for both the legacy and IP multi-media domains as well as the associated guiding principles. This document also proposed the terminology "IP Multimedia Subsystem" and the group accepted this terminology for use in the All IP NAM document in place of IP multimedia domain. This contribution was left open for consideration in the development of the All IP NAM. In addition, text from the Microsoft Word version of this document will be reviewed offline for possible incorporation into the Requirements document.

- Recommended changes to "IP Network Architecture Model for cdma2000 spread spectrum systems" (ALLIP-20000717-006R1) were presented by Sprint PCS. This document included input from Sprint PCS based on their business drivers as well as inputs from the current MWIF activities. This contribution was remanded to the NAM AdHoc for additional discussions.

- A contribution on feature control at the home or at the visited system (ALLIP-20000717-007) was presented by Ericsson. This contribution included a historical background on feature control as well as the consequences (i.e., lessons learned) from that historical approach. The contribution recommended that the access network be separated from feature execution and that feature control be supported both by the home system and the visited system at the discretion of the home system. The contributor indicated his intent to recommend specific additions to the Requirements document based on this contribution for consideration at a later date.

- A contribution entitled "From access dependence, to access independence, to transparency" (ALLIP-20000717-008) was presented by Ericsson. This contribution proposed to architect the 3GPP2 All IP systems in such a manner as to minimize the home system's need to know about the serving system's capabilities (i.e., transparency of features and call/session control). It further recommended that line 22 of the NAM diagram be removed based on the argument that the RM (resource manager) should not be dependent or concerned with the details of the RAN. This recommendation was remanded to the NAM FG for consideration.

- A contribution on the analysis of the roles of SM, RM, PM, SecM, and MM in the NRM (ALLIP-20000717-009) was presented by Ericsson. This contribution proposed a rearrangement of the architecture into a layered view as well as rearrangement or outright removal of some of the functional blocks. Additional detail related to this recommendation was noted to be provided in the Ericsson contribution on proposed changes to the All IP NAM (ALLIP-20000717-012). Ericsson (Lila Madour) was directed to considered the inputs from the discussions at this meeting and provide additional detail on its layering recommendations for discussion at the next meeting.

- A contribution on ALL IP architectural views (ALLIP-20000717-010) was presented by Ericsson. This contribution focused on roaming views of the architecture in the home, delegation, and distributed models. In addition, renaming of the SCM in the MMed mode was proposed. This recommendation was remanded to the NAM AdHoc for consideration.

- A contribution on All IP distributed (proxy) control model architecture (ALLIP-20000717-011) was presented by Ericsson. This contribution identified the call-flows and functionality for the SCM in the home and visited networks. The recommendations contained in this contribution were remanded to the NAM AdHoc for consideration.

- Proposed changes to the All IP NAM (ALLIP-20000717-012) were presented by Ericsson. This contribution proposed changes to align the NAM with the requirements and architectural principles. The diagrams contained in this contribution also summarized the recommendations presented in contributions 008-011 presented on this dated. The changes recommended in this contribution were remanded to the NAM AdHoc for consideration.

- A contribution on All IP NAM for MS and RAN (ALLIP-20000717-023) was presented by LGIC. This document recommended that the MS and all of the entities of the RAN should be included in the NAM. This recommendation was approved in concept without objection.

- A contribution on All IP NAM for legacy support functions (ALLIP-20000717-024) was presented by LGIC. This contribution proposed a revision to the interface supporting the legacy functions. This recommendation was remanded to the NAM AdHoc for consideration.

- Hyundai's proposal for NRA based on phased approach (ALLIP-20000717-027) was presented. This contribution also proposed several new requirements. This contribution was remanded both to the NAM AdHoc and the Requirements Document Editor for consideration.

- The Chair directed that the NAM Focus Group which was meeting that evening to focus on the grouping of functions/elements and the list of protocols to be standardized. Specific items for review by that group were identified as follows:
  - Functional description definitions of each of the entities and relationships including Resource Manager/Bandwidth Broker and Policy Manager
  - Support for non-IP mobiles and for IP-based mobiles
  - Use of AAA to authenticate SIP including consideration of visited SIP proxy
  - Addition of BSS and MS components to NAM

- A contribution on policy-based architecture (ALLIP-20000717-028) was noted by Ericsson. This contribution proposed the elimination of the Policy Manager from the NAM. This contribution was remanded to the NAM AdHoc for consideration.

- A contribution on a NAM for 3GPP2 All IP Functions (ALLIP-20000717-031) was presented by 3COM. This document were presented to provide additional concepts for discussion in the NAM AdHoc. This contribution was remanded to the NAM AdHoc for consideration.

- An updated version of the NAM document v0.3.0 (ALLIP-20000717-033) was introduced by the Editor which included most of the changes adopted during the discussions of this meeting. During the review of this document, the group noted that these changes had caused inaccuracies in other areas of the NAM diagram which were not discussed. These errors must be addressed in future discussions.

- An alternate version of the NAM document v0.2.0 (ALLIP-20000717-034) was introduced by the NAM AdHoc Chair and was used as the basis for subsequent discussions during this meeting.

- The NAM Editor agreed to broadcast an updated version of the NAM document early during the week of 24 July 2000. This next version would inlcude all additional changes agreed during the final NAM AdHoc discussions at this meeting.

- STAGE 1 REQUIREMENTS

  - The Requirements Document Editor (Phil Brown (Ericsson)) noted updated versions of the Open Items List (ALLIP-20000717-026) on the server, He then conducted a detailed review of the Open Items List v6b. Specific actions as the outcome of the discussions included the following:

    - Req. #2: A suggestion was also made to replace the term "common authentication" with "transparent authentication". Additional discussion still required.

    - Req. #6: Added an additional sentence at then end of the current statement: "The All IP network shall support IPv4, IPv6, or dual stack (i.e., IPv4 and IPv6) terminal devices." The Editor agreed to provide updated text for consideration but the requirement, in concept, was adopted without objection.

    - Req. #14: Requirement deleted.

    - Req. # 21: No consensus on revised text was achieved but the group did approach consensus on the concept that no circuit links would be generated by this requirement in the network. Mike Dolan accepted the assignment to produce revised text for consideration. A soft copy of his recommended text was made available on the server but never subsequently discussed at this meeting.

    - Req. # 25: Requirement deleted.

    - Req. # 26: Requirement was adopted without objection.

    - Req. # 27: No consensus could be achieved. Sprint PCS and Lucent agreed to work together to produce revised text for consideration.

- Req. # 28: Requirement was adopted without objection.
- After some discussion on requirements 29-35, a Migration Path Focus Group was formed to work on consensus text on these requirements. Betsy Kidwell (Lucent) was assigned to Chair this group. The group was tasked with providing recommended text at the next meeting. Requirements 29-35 were left open pending review of the output of this FG.
- Req. # 36: Requirement deleted.
- Req. # 37: Requirement deleted.
- Req. # 38: Requirement was adopted without objection as modified by the discussion: "The All IP Network shall support location based services."
- Req. # 39: Requirement deleted.

Based on this review, five (5) items remain open on the open requirements list excluding contributions for requirements to be added to this list.

- Proposed modifications to section 4 of the Requirements Document (ALLIP-20000717-018) were presented by Lucent. These modifications were adopted without objection as approved or withdrawn on a case-by-case basis in the discussion.

- Proposed modifications to section 6.1.2 of the Requirements Document (ALLIP-20000717-019) were presented by Lucent. The modifications will be included in the updated Open Item List for consideration.

- Proposed text for a new section in the Requirements Document (section 6.1.2) (ALLIP-20000717-020) were presented by Lucent. The modifications will be included in the updated Open Item List for consideration.

- Proposed modifications to the Requirements Document (ALLIP-20000717-022) were presented by LGIC. These modifications were referred to e-mail discussion.

- The Requirements Document v0.5.0 (ALLIP-20000717-032) was presented by the Editor. This update included all changes approved from the e-mail discussions as well as the previous discussions during this meeting. No changes to the definition section were included with the exception of the definition of the IP multimedia domain. The Editor advised that v0.5.1 would be generated and broadcast via the e-mail exploder which will eliminate all of the current revision marks and any changes dictated by the additional discussions on this date. The Editor requested that all comments be generated based on the v0.5.1 version.

- A contribution entitled "Requirements: Feature control at home or visited systems" (ALLIP-20000717-029R1) was presented by Ericsson. This contribution focused on changes to section 6.3.3 of the Requirements Document related to Call Control. These modifications were referred to e-mail discussion.

- • TTA's review of the Requirements Document in 3GPP2 All IP AdHoc (ALLIP-20000717-035) was presented by TTA. This contribution focused on the following issues:

    - • Need for refining long term vision

    - • Need for active vision for IP MM Domain service

    - • Need for closed cooperation between TTA and 3GPP2

    TTA was reminded that they are indeed an OP of 3GPP2 and their participation and close cooperation is encouraged by 3GPP2 organizational definition. No specific requirements were generated from this contribution but TTA was invited to make specific requirements proposals as they see fit. This contribution also generated substantial discussion on the AdHoc gameplan for the completion of its charter (see New Business section).

  - • A contribution on Layer 2 mobility for real time packet data service in the All IP Network (ALLIP-20000717-036) was presented by ETRI. The three (3) specifically proposed requirements in this contribution were referred to e-mail discussions.

- • NEW BUSINESS:

  - • A contribution on Low Interruption Mobile IP Telephony (LIMIT) (ALLIP-20000717-021) was presented by Lucent. This contribution proposes multiple connection handoff to support low interruption intra and inter PDSN handoffs. The contributor also noted that this was intended to be a 3GPP2 solution and not standardized by IETF. This contribution was submitted as FYI for consideration by the group.

  - • The All IP Plans contribution (ALLIP-20000717-030) was introduced by the Co-Chairs. Based on the current status of activities, even though there was general consensus that substantial progress made in these face-to-face meeting, the group felt that the September 2000 meeting date was very aggressive for completion of both the Requirements and NAM documents. There was also general consensus on the following:

    - • The group has been very successful resolving issues of concerns on the requirements using the e-mail discussion technique. Resolution of the outstanding requirements issues will continue to use this strategy with a target for final consensus at the next meeting.

    - • Face-to-face meetings are mandatory for resolution of NAM related issues.

    One (1) of the participants indicated that the SC meeting originally scheduled for October 2000 was being rescheduled for early November 2000 (specific date TBD). Based on these concerns, the following additional meetings were suggested pending confirmation of meeting space availability:

    - • NAM FG AdHoc meeting during 8-10 August 2000 (3 full days) in either Las Vegas (Caesar's Palace to piggyback on CDG meetings), Vancouver, or Honolulu, HI.

- Full AdHoc meeting for the purpose of V&V of output documents during 3-5 October 2000 in downtown Chicago or Vancouver.

- Although Sprint PCS withdrew their contribution on workplan/organizational issues for implementing the All IP specifications (i.e., Stage 2 and Stage 3 work), the group was advised that those considerations need to be initiated in the upcoming meetings.

- A draft version of the Co-Chair's report to the upcoming SC meeting (ALLIP-20000717-012) was reviewed in detail. The document was modified based on the discussion but the updated version was not distributed since the server was not available at that time.

- REVIEW OF ASSIGNMENTS:

  - NAM Editor will broadcast an updated version of the working NAM document which includes all changes agreed during discussions of the NAM FG after the v0.3.0 version was distributed.

  - NAM FG will continue their work on developing the NAM

  - Ericsson will bring in a contribution to initiate discussions on architectural layering to the next meeting.

  - Migration Path FG will bring in a contribution on recommended changes to the Requiements Document section 5 (Phasing) to the next meeting.

- FUTURE MEETINGS:

  - 8-10 August 2000   Proposed NAM FG meeting - TBD
  - 23-24 August 2000   Hyatt Fisherman's Wharf in San Francisco, CA
  - 20-21 September 2000   Sheraton Walker Hill Hotel in Seoul, Korea
  - 3-5 October 2000   Newly proposed final meeting - TBD

The meeting was adjourned at 2:25 PM local time on 19 July 2000.

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

NUMBER	SUBJECT	SOURCE
ALLIP-20000717-		
000	CONTRIBUTION REGISTER	SECRETARY
001	AGENDA	CHAIR
002	Meeting summary - 6/00 - Vancouver, BC	SECRETARY
003	ALLIP NAM rev 0.1.0	EDITOR
004	Positioning of the All IP domains in the NAM	ERICSSON
005	ALLIP AdHoc meeting schedules	CHAIR
006	Recommended changes to "IP Network Architecture Model" for cdma2000 spread spectrum systems	SPRINT PCS
007	Feature control	ERICSSON
008	Transparency	ERICSSON
009	Analysis on roles of SM, RM, PM, SecM, and MM in NRM	ERICSSON
010	All IP architectural views	ERICSSON
011	All IP distributed (proxy) control model architecture view	ERICSSON
012	Changes to All IP NAM	ERICSSON
013	All IP AdHoc report to SC	CHAIR
014	Proposed restructure of 3GPP2	SPRINT PCS
015	TSG-S correspondence to SC Chair regarding 1x enhancements	TSG-S LIAISON
016	TSG-C correspondence to SC Chair regarding 1x enhancements	TSG-C LIAISON
017	Proposed 3GPP/IETF agreement information	SPRINT PCS
018	Requirements Section 4	LUCENT
019	Requirements Section 6.1.2	LUCENT
020	Requirements Section 6.1.9	LUCENT
021	Low Interruption Mobile IP Telephony (LIMIT)	LUCENT
022	Modification for the cdma2000 All-IP requirements v0.4.0	LGIC
023	All IP NAM for MS and RAN	LGIC
024	All IP NAM for legacy support function	LGIC
025	ALLIP NAM rev 0.2.0	EDITOR
026	Requirements open items v6	EDITOR
027	NRA based on phased approach	HEI
028	Policy based architecture	ERICSSON
029	Requirements for home vs visited systems	ERICSSON

ALLIP-20000717-		
030	Plans for August and September 2000 All-IP AdHoc meetings	CO-CHAIRS
031	NAM for 3GPP2 All IP Functions	3COM
032	Requirements Document rev 0.5.0	EDITOR
033	ALLIP NAM rev 0.3.0	EDITOR
034	All IP NAM rev0.2.0 modified by NAM Focus Group Chair	NAM FOCUS GROUP
035	TTA's review of All IP Requirements	TTA
036	Layer 2 mobility for real-time packet data service	ETRI