

Report of RAN2-RAN3-SA2 joint meeting on 3GPP System Architecture Evolution and Evolved UTRA and UTRAN

(RP-050352)

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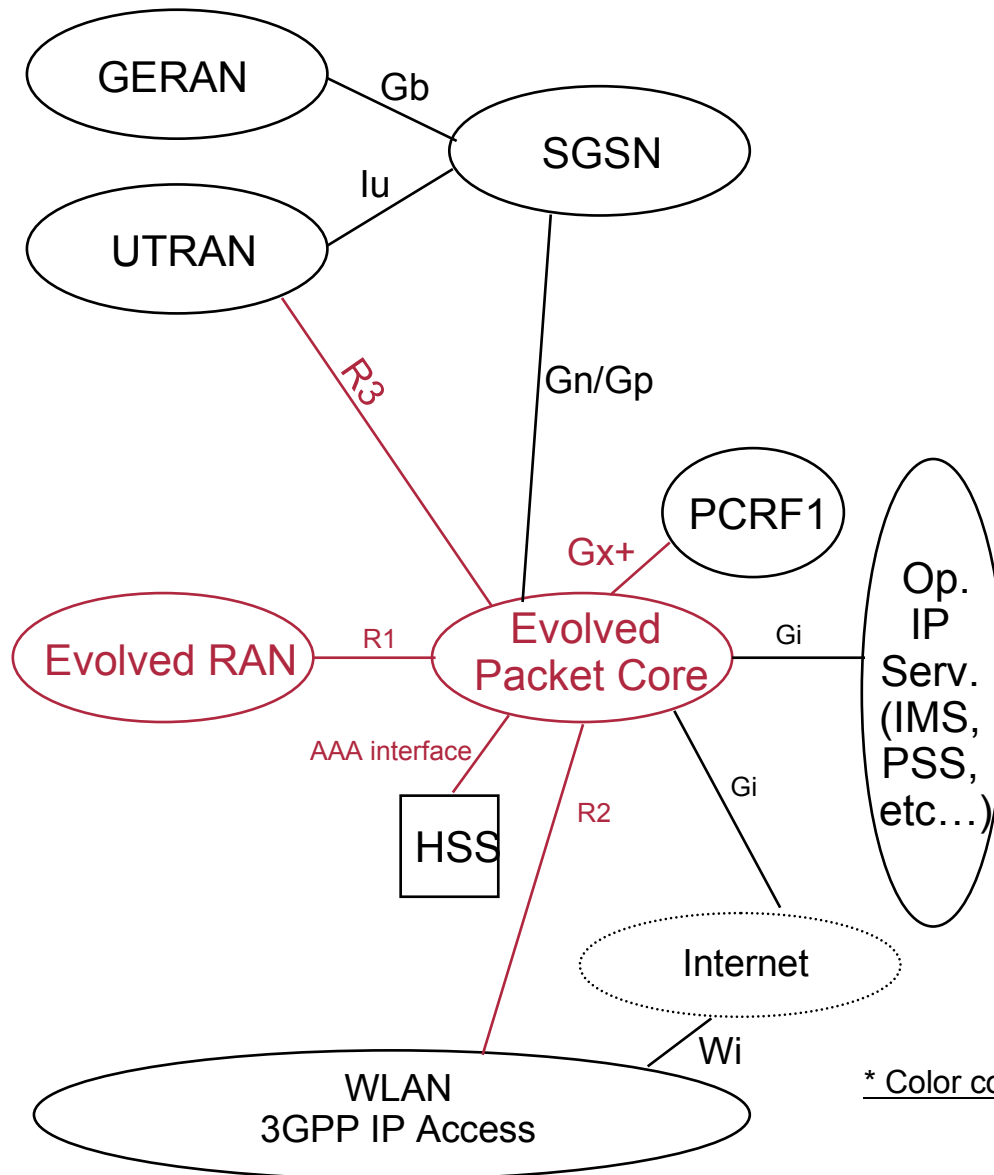


what, where, when, etc.



- RAN2 – RAN3 – SA2 joint sessions held on 2005-05-11 afternoon in Athens during regular SA2 and RAN WG meeting week
- large attendance
- Goal was to identify a list of topics and key issues to be addressed during the joint sessions.
 - RAN and SA2 WI rapporteurs presented current status
 - 2 SA2 Architectural options (drafted the day before) were presented
 - 17 company contributions presented and shortly discussed
 - key issue list presented by chairmen and rapporteurs
 - meeting schedule reviewed and endorsed (Montreal, London, Tallin)
- ⇒ joint work on topics common for both the LTE and SAE Feasibility Studies has been started and will be continued (at least) until a function split is defined.

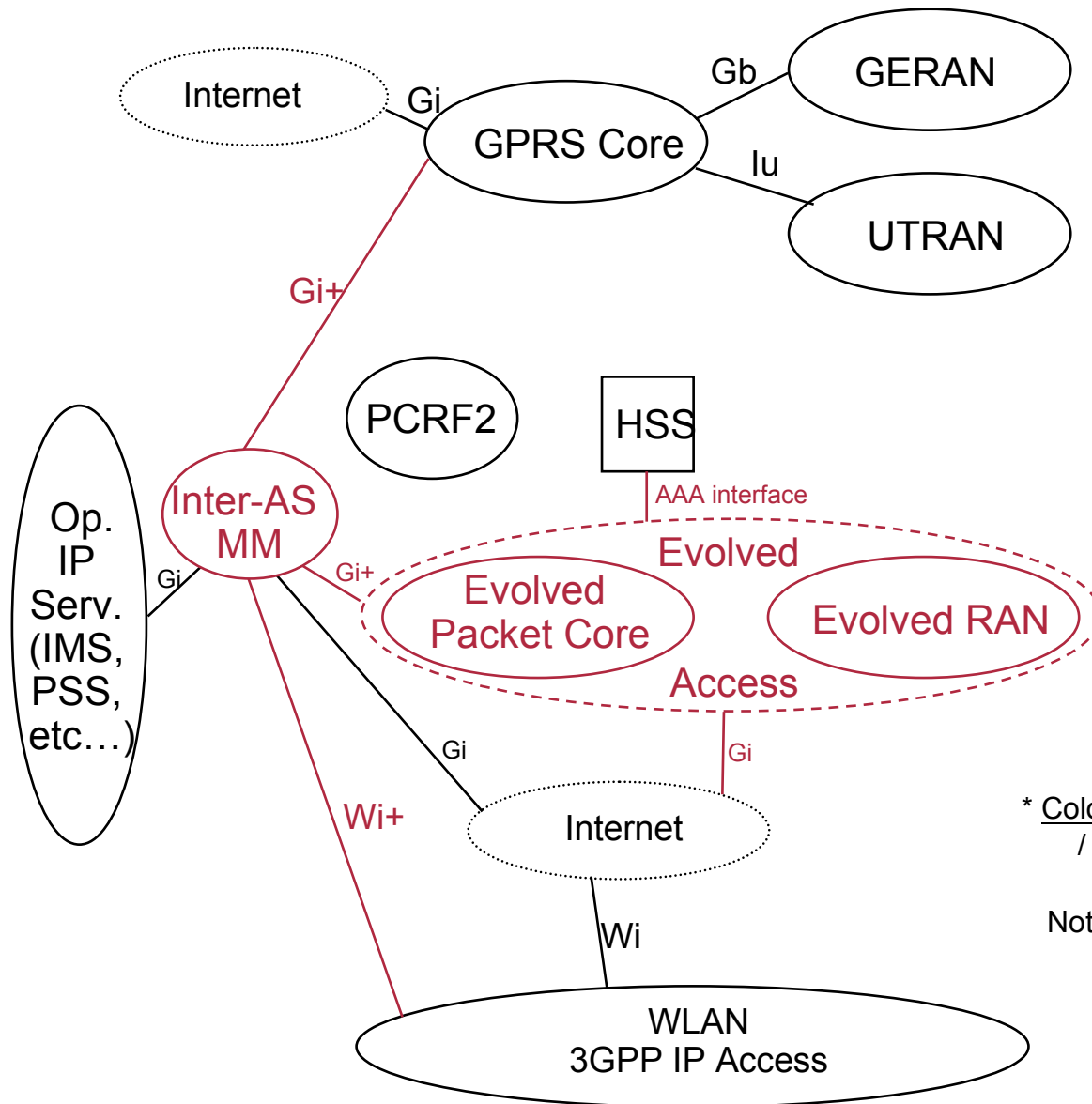
SA2 architectural Options (1) (SRJ050023)



- R1, R2, R3 are working names for reference points
- Gx+ denotes evolved/extended Gx
- PCRF1 denotes evolved Policy and Charging Rules Function

* Color coding: red indicates new functional element / interface

SA2 architectural Options (2) (SRJ050023)



- Inter-AS MM: Inter-Access-System Mobility Management
- PCRF2: Evolved Policy and Charging Rules Function
- Gi+ : Gi with added Inter-AS mobility support
- Wi+ : Wi with added Inter-AS mobility support

* Color coding: red indicates new functional element / interface

Note: It is FFS how PCRF2 connects to other elements

list of identified topics (1) (SRJ050026)



- **Consolidating Requirements - Latency for overall System**
(U plane delay, U plane jitter, C plane latency)
- **How to achieve an increased system performance**
(high bitrate, low latency for U and C-plane, reduce call/data session setup, low RTT etc.)
- **How to support various Access Systems ?**
(Interworking existing 3GPP – evolved 3GPP RATs, required mobility mechanisms, CRRM)
- **(Review of existing) Mobility Mechanisms**
(number of anchor points, optimising mobility procedures, mobility states, involved protocols)
- **Does the current functional split between AS / NAS (/IMS) serve the needs for SAE/E-UTRAN ?**
 - ⇒ **Request to Review C-plane in general**
(SM, GMM, RRC, RANAP, ...)

list of identified topics (2) (SRJ050026)



- **Review / (Re-)Define RAN – CN functional Split**
- **How to support various types of IP services in an optimum way ?**
(VoIP, IP data, etc.) – consider QoS aspects
- **Migration to SAE/LTE + evolution of legacy system**
Q: How much effort should be spent on making the legacy system benefits from SAE/LTE ? This needs to be discussed on TSG level.
- **backwards compatibility to legacy systems**
Is connecting the Evolved RAN to the legacy PS core needed?
Is connecting the legacy RAN to the evolved PS core needed?
- **impact / support of different types of UEs (dual mode, dual radio, simultaneous radio)**
e.g. Voice handover from E-UTRA/UMTS to GSM. If this assumes the use of SA 2's voice call continuity WID, then this assumes that the UE can simultaneously tx and rx on GSM and E-UTRA or UMTS.
- **AAA issues**
(among others: UE identification, ...)

list of identified topics (3) (SRJ050026)



- **How to achieve a simple and robust Architecture ?**
- **“last mile” issue – backhaul costs**
- **Is the evolved system envisioned to work on new and/or existing frequency band?**
- **Distributed or centralised RNC?**
(this imposes requirements on the number of RNC changes that are visible to the CN nodes, U plane encryption, and other security issues.)

Draft Agenda for RAN3-SA2 meeting in Montreal



- 0. Welcome**
- 1. Agenda**
- 2. Overall Architecture (Tuesday pm)**
 - 2.1 Architecture Requirements and Principles**
 - 2.2 Refining the Architecture Options defined at SA2#46**
 - Mobility Aspects
 - Roaming Aspects
 - Migration Scenarios
- 3. RAN – CN related aspects (Wednesday pm + Thursday am)**
 - 3.1 UP Latency Analysis/enhancements “end to end”**
 - 3.2 AS / NAS horizontal division**
 - 3.3 Signalling delay analysis /enhancements**
 - 3.4 AS - NAS & RAN - CN allocation of functions**
- 4. AOB**
- 5. Close of Meeting**

Draft Agenda for RAN2 Adhoc in Sophia A.



1. What are the main issues that need to be resolved?
 2. Vision on evolution of the radio interface protocol architecture
 - **potential modified layering**
 - **transport channels for the new L1**
 - **evolution of the existing protocols (new functionalities, areas for optimisation)**
 - **including the aspect on SHO/selection combining. This is to understand company views from a radio architecture point of view, in addition to RAN1 discussions on a similar topic from physical layer perspective**
 3. Handover principles, with a special focus on measurements
 4. UE capability
- Expected outcome:
- **Identification of areas of work for RAN2**
 - **expression of company view**
 - **view whether applicability of topics to evolutions of legacy system is given**