

Source: Rapporteur
Title: WI re-org: New WI: Evolution of the transport for A
Document for: Decision

Work Item Description

Title

Evolution of the transport for A

1 3GPP Work Area

X	Radio Access
X	Core Network
	Services

2 Linked work items

None

3 Justification

TSG-GERAN has decided to adopt the Iu Interface for the support of Real Time services over packet (Iu-ps) and for the support of circuit switched services (Iu-cs).

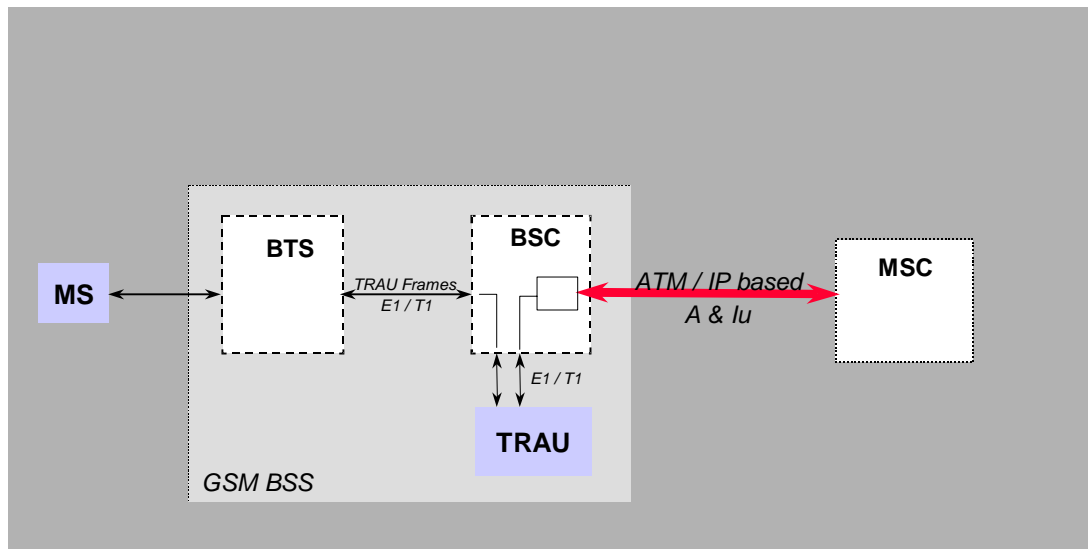
For existing networks, the migration to a 3G-like system architecture will require to support at the same time the Iu Interface and the legacy A and Gb Interfaces.

It is critical to provide a cost effective evolution path for legacy GSM networks towards the new Release 5 GERAN System Architecture without requiring a system wide upgrade of the different network elements.

To that effect, it would be beneficial to introduce a new option for the Transport Layer of the A Interface, identical to the Transport Layer of the Iu Interface. It could then be possible to migrate to a release 5 System Architecture without major impact on the installed BTSs and Transcoders as shown in the following figure. The BSC would continue to provide the required interconnection path for the TRAU Frames between BTS and TRAU and while the same Transport Layer would be used for the A and the Iu Interfaces. This solution would also facilitate load sharing between legacy A/Gb and Iu Interfaces.

Depending on the operation mode of the MS (A/Gb or Iu), the network would allocate the transcoder either in the BSS TRAU (A/Gb mode) or in the Media Gateway (Iu mode).

This solution also increases the synergy between GSM and 3G Network architectures.



4 Objective

- Definition of a new A Interface Transport Layer option based on the Iu Interface Transport Layer
- Adaptation of the Layer 3 BSSMAP procedures as required.

5 Proposed features, building blocks and work tasks:

Building Block	Work task
Evolution of the transport for A	<ul style="list-style-type: none"> • Definition of a new A Interface Transport Layer option based on the Iu Interface Transport Layer in 48.004 • Introduction of a new packet based protocol layers in 46.006 • Adaptation of the Layer 3 BSSMAP procedures in 48.008

6 Service Aspects
None

7 MMI-Aspects
None

8 Charging Aspects
None

9 Security Aspects
None

10 Impacts

Affects:	SIM	ME	AN	CN	Others
Yes			X	X	
No	X	X			
Don't know					

11 Expected Output and Time scale (to be updated at each plenary)
The time plan for this work item is documented in 50.099 (GERAN project plan)

12 Work item rapporteurs

Alain Ohana, SBC

13 Work item leadership

TSG GERAN

14 Supporting Companies

Bell South, Vodafone, Mannesmann, Telia, T-Mobil

15 Classification of the WI (if known)

	Feature (go to 15a)
X	Building Block (go to 15b)
	Work Task (go to 15c)

15a The WI is a Feature:

15b The WI is a Building Block: GERAN improvements 3

15c The WI is a Work Task: parent Building Block