

TSG-RAN Meeting #7

Madrid, Spain

13th - 15th March 2000

Agenda Item: 8

Source: Japan Telecom, Ericsson

To: RAN #7

Title: Work Item Description "Introduction of prioritization for AAL type 2 connections over Iub and Iur interfaces"

Document for: Approval

Work Item Description

Title

Introduction of prioritization for AAL type 2 connections over Iub and Iur interfaces

Intended output

Replacement of the referred ITU-T Recommendation Q.2630.1 AAL Type 2 Signalling Protocol (Capability Set 1) to Q.2630.2 AAL Type 2 Signalling Protocol (Capability Set 2) in the following Technical Specifications:

TS 25.414 UTRAN Iu interface data transport & transport signalling,

TS 25.424 UTRAN Iur interface data transport & transport signalling for CCH data streams ,

TS 25.426 UTRAN Iur and Iub interface data transport & transport signalling for DCH data streams ,

TS 25.434 UTRAN Iub interface data transport & transport signalling for CCH data streams .

Q.2630.2 has a capability to realize prioritization for AAL type 2 connections and was determined (means technically frozen) at 9th March 2000 ITU-T WP1/11 meeting and is planned to be decided (means finally approved) in November-December 2000.

The objective is to optimize the bandwidth of underlying VC (virtual connection) for AAL type 2 connections over Iub and Iur interfaces with supporting delay budget for real time traffics, e.g. compressed voice.

Impact on other Technical Specifications and Technical Reports

None.

Technical scope

In Release 99, traffic like compressed voice (AAL type 2 connection) and traffic like data (AAL type 2 connection) are accommodated in common underlying VC for AAL type 2 connections as real time traffics over Iub and Iur interfaces to ease management of CFN (Connection Frame Number) allocation to Down link data frame or scheduling at SRNC (Serving RNC). In addition to that Q.2630.1 has no capability to prioritize real time traffic like compressed voice or non-real time traffic like data.

This requires much broader underlying VC for AAL type 2 connections to achieve delay budget for real time traffic like compressed voice especially in case of real time traffic data frame (smaller) right after non-real time traffic data frame (much bigger). Typical simulation on the case was given in TSG R3#8(99)e19 by Alcatel in Release 99 time frame. Broader underlying VC for AAL type 2 connections over Iub interface impacts very much on initial and running costs of the Iub interface which usually consist of leased line.

It is expected to introduce prioritization capability of Q.2630.2 to optimize the bandwidth of underlying VC for AAL type 2 connections over Iub and Iur interfaces with saving CFN allocation to Down link data frame or scheduling at SRNC in Release 00 time frame. Down link data frame of non-real time traffic which can be smoothed may be assigned future CFN according to expected delay to be arrived on time at destination Node B(s).

Impact on other 3GPP features

None.

Schedule of tasks to be performed

| Task | Planned start | Planned finish |
|------------------------------------|---------------|----------------|
| Work task creation | 03/2000 | |
| Work task approval | 03/2000 | |
| Drafting and discussion | 04/2000 | 09/2000 |
| Corrections/Fine tuning | 09/2000 | 12/2000 |
| Submission to TSG RAN for approval | 03/2000 | 12/2000 |

Supporting individual members

Japan Telecom, Ericsson, NTT DoCoMo, NEC

Rapporteur

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