

Agenda Item: 11 Iu Data Transport + Transport network control plane (25.414)
Source: NEC
Title: Classical IP over ATM used in Iu for SVC
Document for: Discussion and Decision

[1] UMTS23.20 version 1.7.0 : Evolution of the GSM platform towards UMTS
[2] 25.414 version 2.0.0 : UTRAN Iu Interface Data Transport and Transport Signalling

1. Abstract

In the 25.414 version 2.0.0, the Classical IP over ATM used for IP packet transferring over ATM transport network was specified. This contribution is a proposal to add some description in the case of SVC.

2. Discussion

There is a requirement in the [1] indicates that the SVC can be used between UTRAN and IP Domain as well as Permanent VC.

Quoted from UMTS23.20 [1] chapter 7.2 bullet item No.6:

- *One or several AAL5/ATM Permanent VCs may be used as the common layer 2 resources between the UTRAN and the 'IP domain' of the CN. The reason for usage of several permanent AAL5/ATM VCs may e.g. be for load sharing and redundancy. It is also possible to use one switched VC per user flow (PDP context or radio access bearer). Switched VCs may be used, however the standardization of the procedures and protocols for use of Switched VCs is outside the scope of the 3GPP. If operators use switched VC, the specification of procedures and protocol for switched VCs are up to operators and out of scope of the UMTS/IMT-2000 specification.*

The description in the UMTS23.20 describes that the standardization of the procedure and protocol for use of Switched VC is outside of the scope of the 3GPP. It is then thought that in case of Switched VC, it is not necessary to specify whether the classical IP over ATM be used or not in 3GPP standardization work, in order to meet the requirement. The procedure and protocol of using SVC shall be up to implementation.

3. proposal

It is proposed to add some text description to the 25.414 chapter 6.1.5 as shown below.

6. 1.5 IP/ATM

Classical IP over ATM protocols are used to carry the IP packets over the ATM transport network except for switched VC case. Classical IP over ATM is specified in IETF RFC 2225. Multiprotocol Encapsulation over AAL5 is specified in IETF RFC 1483 for PVC case. The standardization of the procedures and protocols for use of Switched VCs is outside the scope of the 3GPP.