TSG-RAN Working Group 1(Radio) meeting #5 **TSGR1#5(99)605**
Cheju, Korea, 01 – 04 June 1999

Agenda Item: 13.1

Source: **Editor**

Title: Proposed changes to TS 25.201 V2.0.0

Document for: agreement

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1) The current TS 25.201 at first explains the document structure of 25.200 series, and then explains a general description of the layer 1. I propose employing the reverse order.

2) Figure 7-5 protocol architecture was copied from S2.01 V1.0.0 (currently TS 25.301). This figure contains a little bit detail as included in TS 25.201. I propose using a simplified figure. The proposed modification is attached below.

Text proposal:

1 Scope

This specification gives a general description of the physical layer of the UTRA air interface. This specification also describes ~~the documents being produced by the 3GPP TSG RAN WG1and first complete versions expected to be available by end of 1999~~the document structure of the 3GPP physical layer specifications, i.e. TS 25.200 series. ~~This specification gives also general description of the physical layer of the UTRA air interface,~~ The ~~S1~~ TS 25.200 series specifies the ~~Um~~Uu point for the 3G mobile system~~. This series~~, and defines the minimum level of specifications required for basic connections in terms of mutual connectivity and compatibility.

~~7~~4 General description of Layer 1

~~7~~4.1 Relation to other layers

~~7~~4.1.1 ~~General~~ Protocol Architecture

~~Air~~ Radio interface which is prescribed by this specification means the ~~Um~~ Uu point between User Equipment (UE) and network. The ~~Air~~ radio interface is composed of Layers 1, 2 and 3. Layer 1 is based on WCDMA technology and the ~~S1~~ TS 25.200 series describes the Layer-1 specification. Layers 2 and 3 of the ~~air~~ radio interface are described in the ~~S2~~ TS 25.300 and ~~S3~~ 25.400 series, respectively.

~~<Editor's Note: The following figure comes from S2.01 V0.0.1. The figure needs update to be aligned with S2.02 from TSG RAN WG2 >~~
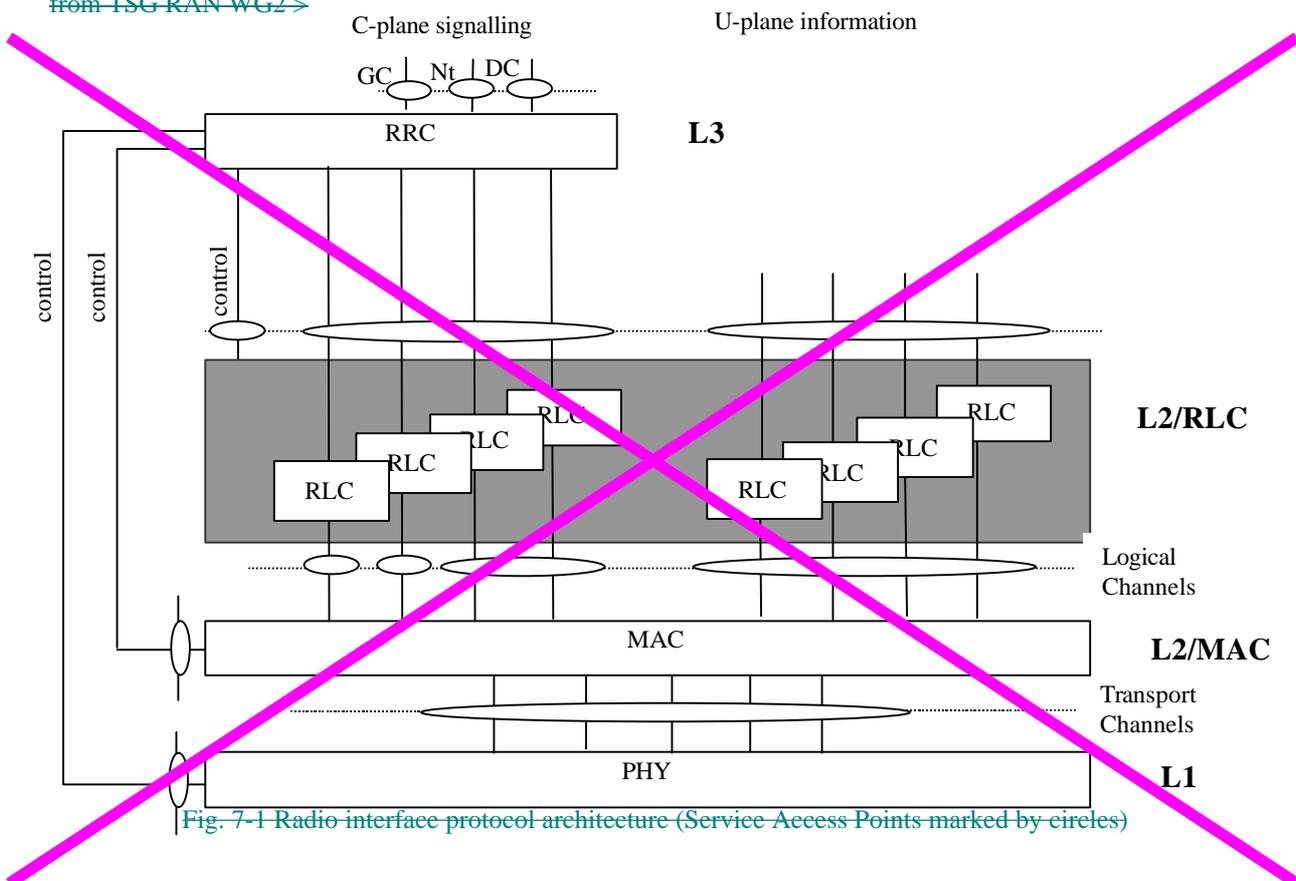

~~Fig. 7-1 Radio interface protocol architecture (Service Access Points marked by circles)~~

Layer 3 — Radio Resource Control (RRC)

Layer 2 — Medium Access Control (MAC) — Logical channels / Transport channels
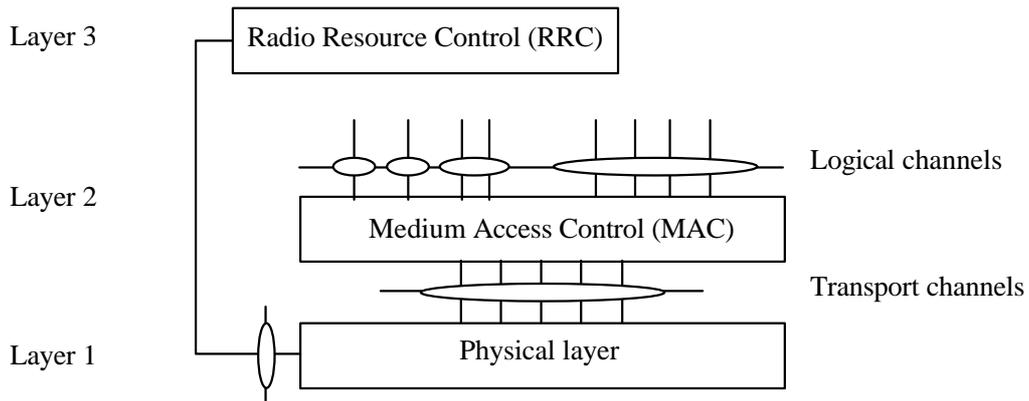
Layer 1 — Physical layer

Fig. 5-1 Radio interface protocol architecture around the physical layer

Figure 74-1 shows the UTRA radio interface protocol architecture around the physical layer. The physical layer interfaces the Medium Access Control (MAC) sub-layer of Layer 2 and the Radio Resource Control (RRC) Layer of Layer 3. The circles between different layer/sub-layers indicate Service Access Points (SAPs). The physical layer (Layer 1) offers different Transport channels to L2/MAC. A transport channel is characterized by how the information is transferred over the radio interface. L2/MAC offers different Logical channels to the Radio Link Control (L2/RLC) sub-layer of Layer 2. A logical channel is characterized by the type of information transferred. Physical channels are defined in the physical layer. There are two duplex modes: Frequency Division Duplex (FDD) and Time Division Duplex (TDD). In the FDD mode a physical channel is characterized by the code, frequency and in the reverse link the relative phase (I/Q). In the TDD mode the physical channels is also characterized by the timeslot. RRC controls RLC, MAC andThe Physical physical layer is controlled by RRCvia primitives.