

TSG-RAN Working Group 2 (Radio layer 2 and Radio layer 3) *TSGR2#6(99)824*
Sophia Antipolis, France, 16 - 20 August 1999

Agenda Item:

Source: CCL/ITRI

Title: Comparison of CPCH MAC Procedures from CCL/ITRI & GBT

Document for: Discussion and Information

Abstract: This document summarizes the differences between the CCL's and GBT's proposal on CPCH MAC procedures.

1. Difference in Handshaking

Figure 1 depicts the timing diagram of MAC procedures regarding the handshake after the power ramp-up and before data transmission. GBT's procedures involve 4-way handshake while CCL's proposal is a 2-way handshake.

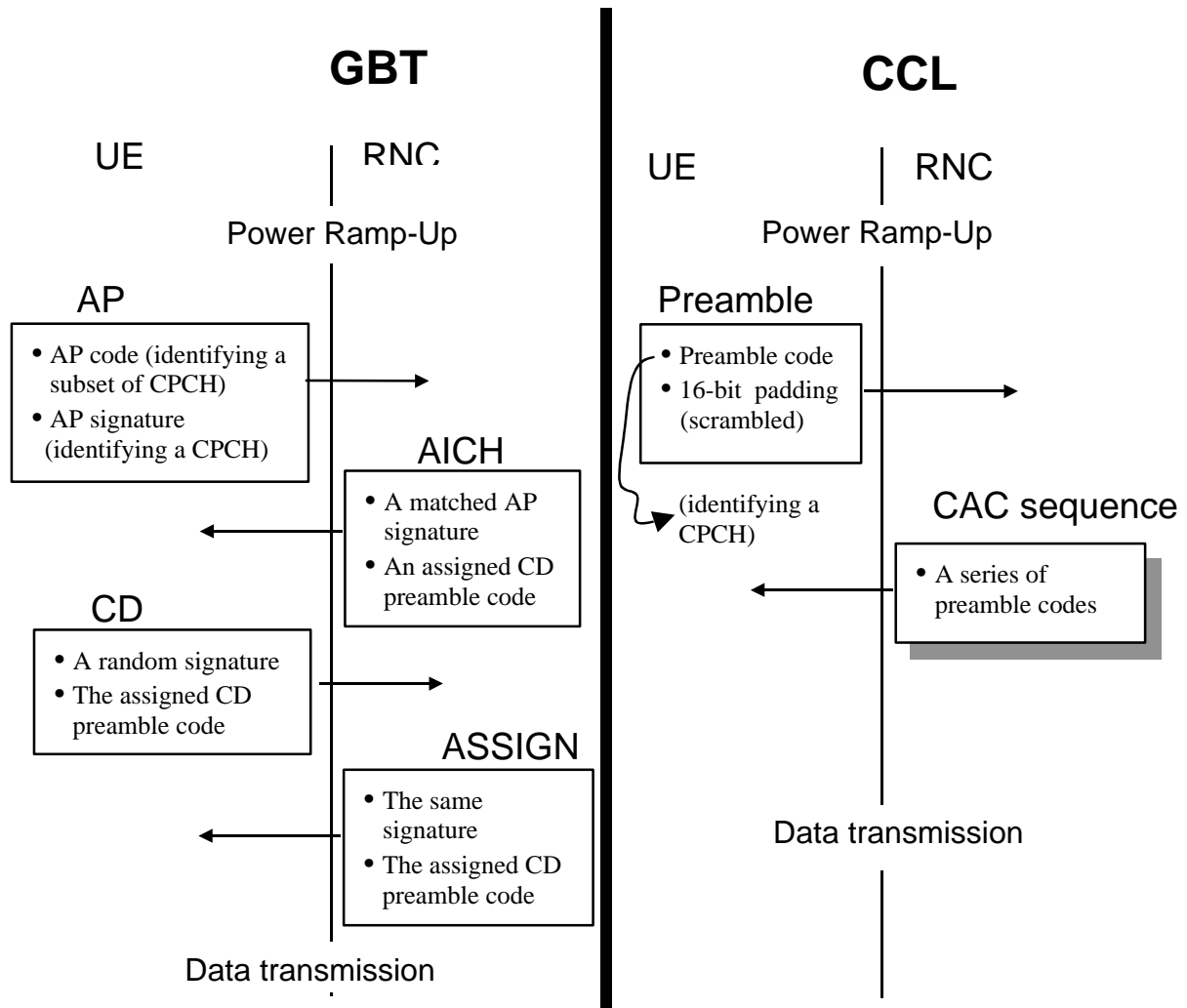


Figure 1. Timing diagram of two MAC procedures.

Major Differences:

1. The handshake from UE's choosing a CPCH, until its sending the data:
 - GBT: 4-way handshake
 - CCL: 2-way handshake
2. The generation of random signature
 - GBT: randomly from a set of 16 code combination
 - CCL: 12-bit random data with CRC & scrambling
3. Mapping & Choosing of CPCH
 - GBT: AP code & AP signature

- CCL: preamble code & time-offset
- 4. Polling from UTRAN
 - GBT: single UE
 - CCL: multiple Ues

Similarities:

1. Random backoff when failed.
2. The set of CPCHs in a cell is determined by UTRAN (RNC), and can be dynamically adjusted according to the traffic status
3. Fast access (collision resolved at low layer)