

**3GPP TSG RAN WG1 Meeting #54bis
Prague, Czech Republic, September 29 – October 3, 2008**

R1-083679

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UL Layered Control Signal Structure in LTE-Advanced

NTT DOCOMO, INC.

**Agenda item: 11
Document for: Discussion and Decision**

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Objective

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- **Proposed layered control signal structure in LTE-Advanced**
 - Achieves high commonality with control signal formats in Rel-8 LTE
 - Uses layered control signal formats according to assigned transmission bandwidth to achieve efficient control signal transmission

- Investigate UL control signal structure for LTE-Advanced UE with wider Tx/Rx bandwidth capability

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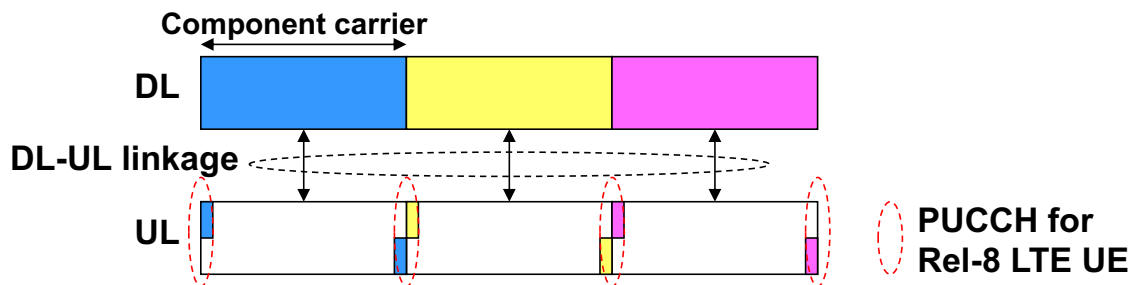
**PUCCH Transmission Scheme
for Rel-8 LTE UE**

PUCCH Transmission Scheme for Rel-8 LTE UE

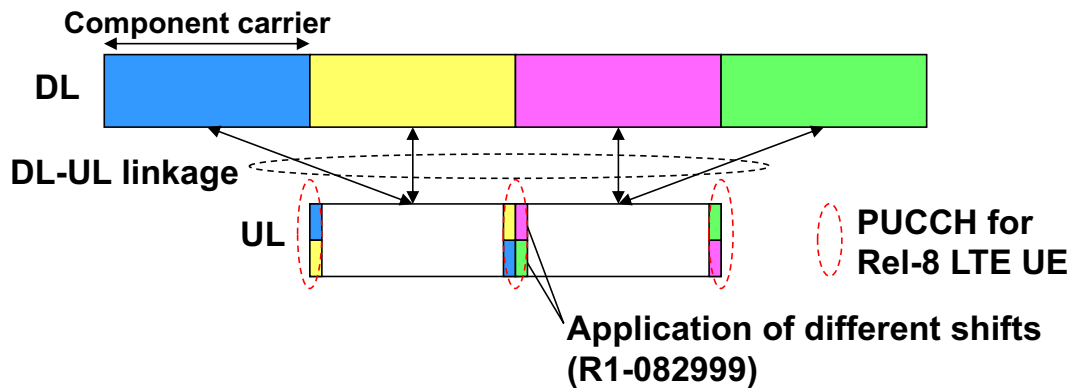
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- Should support PUCCH for Rel-8 LTE UE in symmetric and asymmetric bandwidth assignments (ref. R1-082999)

- ◆ Symmetric bandwidth assignments



- ◆ Asymmetric bandwidth assignments



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**PUCCH Transmission Scheme Candidates
for LTE-Advanced UE**

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