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# Motivation for new WI proposal on Multi-Carrier Enhancements for UMTS

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# Background and Motivation

- SI on Multi-Carrier enhancements for UMTS is proposed to be completed at RAN#72 (TR 25.707).
- The uplink coverage of cells deployed in different carriers can be different. In order to enhance the performance of legacy multi-carrier in the uplink, 10ms TTI can be configured on one of the carriers or on both carriers when DB-DC-HSUPA/DC-HSUPA is configured to obtain higher data rates.
- The “Study on Multi-Carrier enhancements for UMTS” has identified that performance of legacy multi-carrier in the uplink can be enhanced by configuring 10ms TTI on one of the carriers or both carriers for DB-DC-HSUPA/DC-HSUPA.
- In addition, regarding enhanced TTI switching in DC-HSUPA, during the SI phase it was concluded that it is in principle feasible to switch TTI on primary or secondary uplink frequency or both.

# Proposed WI Objectives

- Specify new configurations: 2ms+10ms and 10ms+10ms TTI, for DC-HSUPA and DB-DC-HSUPA scenarios.
- Specify mechanisms for EUL coverage improvements. Identified solution is based on enhanced TTI switching.