

**3GPP TSG RAN Meeting #65**  
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**Document for: Discussion**

**Agenda Item: 14.1.1**

Motivation for New SI proposal:  
LTE Carrier Aggregation  
Enhancement Beyond 5 Carriers

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# Rel-13 SI Proposal: LTE Carrier aggregation enhancement beyond 5 carriers

## Motivation and Benefits

- Lot of interest in extending LTE towards capturing the unlicensed spectrum opportunities in the 5GHz band.
  - WLAN operating in the 5GHz band already supports 80MHz in the field and 160MHz to follow in Wave 2 deployment of IEEE 802.11ac.
- Also on other bands – e.g. 3.5 GHz – allocations may enable more than single carrier on one frequency band in addition to the bands already widely in use for LTE.
- RAN1/RAN2 LTE CA specifications may soon be a limiting factor for further DL CA enhancements
- CA extension beyond 5 carriers provides an opportunity to efficiently utilize the available spectrum for communication needs
  - SI preferred as not all CA aspects scale directly with increasing number of component carriers

# Rel-13 SI Proposal: LTE Carrier aggregation enhancement beyond 5 carriers

## Proposed SI Objectives

- Mechanisms to enable **LTE CA up to 16 carriers** – at least for DL:
  - Focus on extending the currently available CA framework
  - Enhancements for UL control signalling
  - Enhancements for to DL control signalling
- Potential enhancements for L2/L3 signalling to efficiently accommodate more than 5 component carriers

Study should assume less frequency bands than carriers.