

3GPP TSG RAN Rel-19 Workshop
Taipei, June 15 – 16, 2023

RWS-230476

CREATE
CONNECT
LIVE
inspire



Agenda Item : 5
Source : InterDigital, Inc.
Title : Views on Sidelink enhancement
for Rel-19
Document for : Discussion

Sidelink Evolution

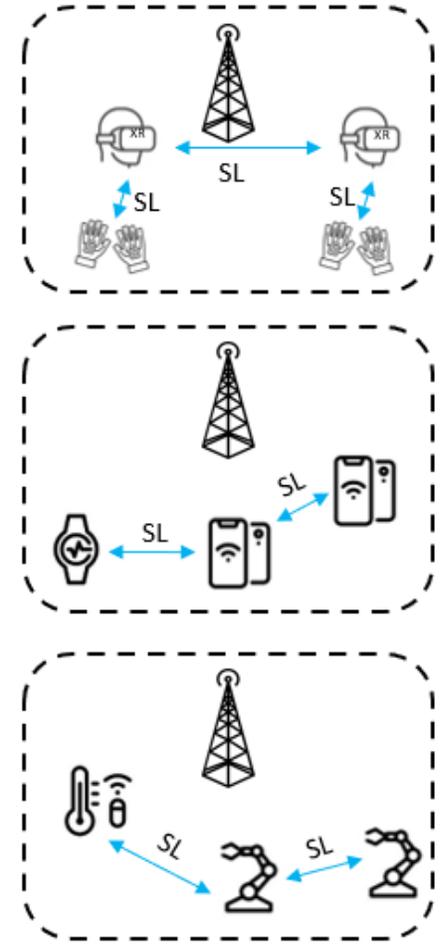
High priority topics

Motivation

- Further improve SL carrier aggregation performance with NR SL features
- Enable large bandwidth sidelink operation in FR2 to achieve high throughput performance for indoor commercial use cases

Proposed scope for R19

- Carrier aggregation with NR-specific enhancements
 - Mode 1 multi-carrier operation, e.g., SL HARQ reporting to gNB
 - Flexible SL carrier configuration, e.g., different SCS and primary/secondary carrier differentiation
 - Resource selection and indication, e.g., cross-carrier scheduling
 - SL carrier (re)selection for PSFCH transmission, e.g., simultaneous PSFCH transmissions over multiple SL carriers
 - Synchronization procedure, e.g., with different SSB resource configuration
 - SL RSRP and CSI measurement and reporting procedure
- Sidelink FR2 normative work based on conclusions of R18 study
 - Beam management including initial beam pairing, beam maintenance and beam failure recovery
 - Beam-based resource selection and sensing
 - PHY CSI feedback enhancements



Sidelink Evolution

Medium/Low priority topics (if time allows)

Motivation

- Expand sidelink support to low latency and high reliability applications (IIoT factory, XR)
- Boost UE power saving for devices with battery constraints, e.g., XR, Smartphone, RedCap UEs

Proposed scope for R19

- SL-U further enhancement
 - Mode 1 SL U operation with Uu based on NR U signaling
 - FBE channel access for IIoT factory environment
- URLLC over SL
 - Introduction of SL survival time
 - High precision synchronization mechanism
 - Resource allocation procedures to reduce latency and improve reliability
- SL power saving enhancements
 - DRX in SL U
 - Wake-up SL signaling