

Motivation for New WI Proposal on Even Further Indoor Positioning Enhancements for LTE

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Background for new WI proposal:

Even further indoor positioning enhancements for LTE

- UE positioning
 - UE positioning has been recognized in 3GPP as an important feature for LTE networks due to its potential for massive commercial applications as well as its relevance to US FCC E911 requirements.
 - Previous studies have shown that E-CID positioning accuracy is dependent on the density of small cell deployments. However, dense small cell deployment can result in high network deployment cost.
- PRS-only beacon
 - PRS-only beacons were introduced in Rel-14 as a low cost network node to transmit PRS only for OTDOA positioning.
 - PRS-only beacon can also provide a potential solution to support E-CID positioning with higher indoor positioning accuracy but lower network deployment cost and lower UE implementation complexity.
- Motivation
 - Introduce the necessary measurements to support E-CID positioning using PRS-only beacons.
 - Other enhancement techniques may be studied as well as there is a continuing demand for more accurate UE positioning.

Scope of new WI proposal:

Even further indoor positioning enhancements for LTE

- Objective
 - Specify PRS-based RSRP/RSRQ reporting to support E-CID involving PRS-only beacons.
 - In addition, other enhancements to improve positioning accuracy will be studied, and agreed techniques will be specified.

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