**3GPP TSG RAN WG1#104-e R1-2xxxxxx**

**e-Meeting, January 25th – February 5th, 2021**

**Agenda Item: 8.2.2**

**Source: Moderator (none)**

**Title: [Draft] PDCCH Monitoring Alternatives**

**Document for: Discussion, Decision**

# Discussion on PDCCH Monitoring Alternatives

## Current version (as of Tuesday 01:05 UTC) – with markup

* Alt 1: A fixed pattern of X slots.
  + The different X slot groups are consecutive and do not overlap
  + PDCCH could be configured in ~~the first~~ Y consecutive slots within each X slot group
  + BD/CCE budget is counted within the Y slots of each X slot group, ~~and different X slot groups do not overlap~~
  + Alt 1-1: Y<X~~, BD/CCE budget is counted within the first Y slots of each X slot group, and the X slot groups do not overlap for different countings.~~
    - FFS: The Y slots are the first Y slots within the X slot group or not
  + Alt 1-2: Y=X~~, BD/CCE budget is counted for each X=Y slot group, and the X slot groups do not overlap for different countings.~~
  + Note: Y is used to facilitate discussion. If Alt 1-2 is agreed, Y is not needed.
* Alt 2: Use (X,Y) similar to the Rel-16 capability (*pdcch-Monitoring-r16*, (X, Y) span) as the baseline to define the new capability
  + Y<=X
  + PDCCH could be configured such that the developed span pattern by SS configuration satisfy (X,Y) requirement, i.e. the start of any two span of at most Y symbols/slots is separated by at least X symbols/slots
  + BD/CCE budget is counted for each span of at most Y symbols/slots
  + FFS: Values of X and Y and units in which they are defined
  + ~~FFS: Whether number of slots within which the number of monitoring occasions is counted is needed and if needed, the value of the number of slots~~
* Alt 3: A sliding window of X=Y slots for defining multi-slot PDCCH monitoring capability.
  + The slot groups are sliding in unit of [1] slot
  + PDCCH could be configured in any slot
  + BD/CCE budget is counted within any slot group ~~consecutive X=Y slots~~
  + ~~FFS: Increments in which sliding occurs~~

## Clean version (as of Tuesday 1:05 UTC)

* Alt 1: A fixed pattern of X slots.
  + The different X slot groups are consecutive and do not overlap
  + PDCCH could be configured in Y consecutive slots within each X slot group
  + BD/CCE budget is counted within the Y slots of each X slot group
  + Alt 1-1: Y<X
    - FFS: The Y slots are the first Y slots within the X slot group or not
  + Alt 1-2: Y=X
  + Note: Y is used to facilitate discussion. If Alt 1-2 is agreed, Y is not needed.
* Alt 2: Use (X,Y) similar to the Rel-16 capability (*pdcch-Monitoring-r16*, (X, Y) span) as the baseline to define the new capability
  + Y<=X
  + PDCCH could be configured such that the developed span pattern by SS configuration satisfy (X,Y) requirement, i.e. the start of any two span of at most Y symbols/slots is separated by at least X symbols/slots
  + BD/CCE budget is counted for each span of at most Y symbols/slots
  + FFS: Values of X and Y and units in which they are defined
* Alt 3: A sliding window of X=Y slots for defining multi-slot PDCCH monitoring capability.
  + The slot groups are sliding in unit of [1] slot
  + PDCCH could be configured in any slot
  + BD/CCE budget is counted within any slot group

## Update from Company X