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| SEAMCAT Technical Group (STG) Send to : [seamcat@eco.cept.org](mailto:seamcat@eco.cept.org) | |  |
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| Date issued: | 25/06/2019 | |
| Source: | Orange (yannick.li@orange.com) | |
| Subject: | Discussion on single sector case in SEAMCAT | |

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| **Type of report** (Bug, Enhancement or New Feature) |
| Enhancement |
| **Issue ID** |
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| **SEAMCAT version V.5.3.0** |
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| **SEAMCAT component** **involved** |
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| **Background information, reference documents and related tickets** |
| STG#64 decided to invite stakeholders to discuss about the issues related to the definition and implementation of a single sector in cellular systems: how SEAMCAT currently deals with single sectors;  what the users would like to have implemented for different options involving the selection of a single sector. |
| **Description of the issue & discussion** |
| 1. **The need**   Several use cases have been expressed during STG#64:  Case\_1: Interference from a single BS to Radar  **BS**  Case\_2: Cross-Border Coordination  The trigger value at the cross-border line and 6 km away from the cross-border line was defined in different ECC Rec, such as ECC Rec(15)01, (11)04, (11)05, etc., the trigger value is calculated from a single BS.  **BS**  Borderline  X km from Borderline  Case\_3: Hotsplot deployment case  Single site hotspot deployment is an often happen scenario, for example, 26 GHz 5G NR, many individual mono-sector site (BS) can often be deployed.  So, there is a real need of “a single sector” functionality in SEAMCAT.   1. **Actual situation in SEAMCAT V5.3.0** 2. **Single sector**     This is a omni-ditectionnal single sector, even omni-directional radio site is no more used in cellular network since 2G GSM, all of the radio sites are tri-sector sites. In ECC-PT1 meeting of june 2019, Swedish railway said there are still some omni-directionnal GSM-R sites in Sweden.   1. **Tri-sector & single cell**     In this case, all of the three sectors of the tri-sector site cell are active.   1. **Tri-sector & single cell & single sector**     It was checked during STG meeting #64 that when a single sector is selected, the selected sector is colorized, but all of the three sectors are active, same as the case 2 of Tri-sector & Single cell.   1. **Possible way forward**   Two possible ways go forward:  Option 1: Add a tri-sector site sector option to the “**Single sector**” case (case 1), the users can choose a “omni-directional” sector or “directional sector”, user should be able to set the direction (azimuth) of this directional sector.  Option 2: When “**Tri-sector & single cell & single sector”** is chosen, only the chosen sector is active, not all of the three sectors active as it does today in SEAMCAT V5.3.0. |
| **Proposal** |
| Option 2 is proposed for implementation, but only for the case of single cell. When “**2-Riers**” or”**1-tier**” is chosen, all of the sectors must be active. |
| **Suggested Priority (High, Medium or Low)** |
| Medium |