Meeting Minutes (SA1 18 Aug. 2022)

* KPIs
  + Data rate
    - Vivo: for UE experienced date rate, is it instant or average date rate? It depends on who is the user? May consider instant data rate since some device needs to report in long time so average date rate is very low.
      * Average rate
      * Device is the user
      * Follow the legacy definition
  + Speed
    - Lenovo: is velocity related to handover? Service continuity can be mentioned.
      * May not for handover only
    - DT: use available definition for velocity, e.g., 21.104
    - KPN: Device + Speed is sufficient
  + Periodicity
    - KPN: Periodicity is the transmit or receive? It is related to UE power consumption. Better to further clarity it is for UL or DL.
      * It is from transmit perspective
    - HW: look at what is really needed by use cases. Too early to capture periodicity.
    - Futurewei: align with 22.104 using traffic interval for periodic traffic
      * Change periodicity to traffic interval
  + Maximum instant power
    - Sony: what is the meaning of device power consumption? It is not needed in the KPI table. Difficult to quantify.
    - HW: focus on communication power. It is an important KPI to capture. Value should be lower than NB-IoT active mode. For some use cases, it might be difficult to quantify but for others might not. It can help RAN people to do it.
    - E///: why and how to specify this maximum instant power?
    - Lola: RAN is the group to address the value of maximum power issue. Harvested power does not mean the power used for communication.
    - KPN: It is linked to energy harvesting. Need to show different use cases have different maximum instant power. Maybe need to mention the availability of the power.
    - Vodafone: Important KPI
      * Need further discussion
  + Service availability
    - Lola: If not all use cases include pos, it should be introduced per use case basis
  + Latency
    - E///: This is outside 3GPP.
      * Communication latency is only a small part of overall latency
    - HW: Latency can be broken down to stages. E2E latency can be used as KPI.
    - KPN: it is difficult to figure out. Out of scope of 3GPP.
    - Lola: Agree to use E2E latency. Do we need to consider the time for energy harvesting?
      * Further study
* Constraint for energy harvesting
  + - Lola: check the values in table 1 across multiple sources
    - HW: a well-structured table to capture more information is needed.
    - E///: They are only rough values. Harvesting part is out of scope.
    - KPN: can be put in appendix
      * More concrete values can be provided for the next meeting
* Potential power scenarios
  + E///: This will lead us to energy harvesting discussion. Need more consideration
  + Lola: Power consumption impact requirements. The power to be used for communication is not necessarily same as harvested power. Therefore, it is not energy harvesting.
  + HW: for a specific use case, it might not always be only one type. Power scenario should not be defined as common ground but for use case specific.
  + Lola: Need to indicate transmit/receive
  + Juergen: should not come to continuous or intermittent communication in the end.
  + Apple: The point that we need to agree - is there any difference between the 'continuous' vs 'intermittent' from a requirements perspective.
  + KPN: continuous power is assumed for NB-IoT. Ambient device can do nothing for long time and intermittent power is suitable for such devices.
  + Battery does not necessarily mean continuous power. Need further study.
* Security
  + KPN: The current way of authentication of current mobile network may not be efficient and a different solution might need to be studied. Main thing is that we need to look at security requirements more careful, and not simply copy-paste the requirements from NB-IoT.
  + E///: Some requirements are needed.
  + HW: Simple solution is needed. Different use case can incur different requirements for security.
  + Further study
* Register and mobility
  + No comments

Note: If not indicated, the speaker is OPPO by default.