Progress report

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03 23, 2017

Outline

Briefly introduce EAB [1]

- The device is divided into two types
  - delay sensitive
  - delay tolerant
- EAB is used for device which be delay-tolerant

Briefly introduce EAB [2]

- There is 10 AC level for devices (0...9)
- In SIB14, there is a bitmap called barringBitmap, if the corresponding bit is 1, then the device will be barred
- It's not evolved from ACB

NB-IoT v.s. LTE (different)

- NB-IoT adopt EAB as the based of access barring mechanism
- It's similar to access barring check of NB-IoT and EAB check, but NB-Iot has more If Else for there spec
  - AC level 11...15
  - exception Data

access barring check for NB-IoT [2]

The UE shall:

1> if *ab-Enabled* included in *MasterInformationBlock-NB* is set to *TRUE* and *SystemInformationBlockType14-NB* is broadcast:

2> if the *ab-Common* is included in *ab-Param:*

3> if the UE belongs to the category of UEs as indicated in the *ab-Category* contained in *ab-Common*; and

3> if for the Access Class of the UE, as stored on the USIM and with a value in the range 0..9, the corresponding bit in the *ab-BarringBitmap* contained in *ab-Common* is set to *one*:

4> if the *establishmentCause* received from higher layers is set to *mo-ExceptionData* and *ab-BarringForExceptionData* is set to *FALSE* in the *ab-Common*:

5> consider access to the cell as not barred;

4> else:

5> if the UE has one or more Access Classes, as stored on the USIM, with a value in the range 11..15, which is valid for the UE to use according to TS 22.011 [10] and TS 23.122 [11] and for at least one of these valid Access Classes for the UE, the corresponding bit in the *ab-BarringForSpecialAC* contained in *ab-Common* is set to *zero*:

References

[1] U. Phuyal, A. T. Koc, M. H. Fong, and R. Vannithamby, "Controlling access overload and signaling congestion in m2m networks," in *2012 Conference Record of the Forty Sixth Asilomar Conference on Signals, Systems and Computers (ASILOMAR)*, Nov 2012, pp. 591–595.

[2] 3gpp ts 36.331. [Online]. Available: http://www.3gpp.org/ftp/Specs/archive/36_series/36.331/36331-e10.zip

Thanks for Your Attentions