

Source: Ericsson, Nokia, Siemens

Comparison of connected mode procedure documentation in ETSI and TTC/ARIB

1 INTRODUCTION

This contribution compares the documentation that has been produced in the ETSI and TTC/ARIB bodies, relating to UE procedures in connected mode, in order to facilitate the creation of a common 3GPP specification.

2 SOURCE DOCUMENTS

The following documents are used as sources:

From ETSI:

- YY.03; v 0.4.0, Description of UE states and procedures in connected mode [1]

From TTC/ARIB, there is no document with a scope corresponding to the ETSI document. However, in the following two documents some applicable information is available:

- Draft UE-UTRAN L3 RRC Signaling Protocol , Vol. 9, Ver. 1.0.0 [2]
- MAC Sublayer Specification for 3G Mobile System (Ver.1.0) [3]

3 COMPARISON

Since there is no TTC/ARIB document with the same scope as in ETSI, the structure of the ETSI document is used as the base for the discussion.

| Item | ETSI | TTC/ARIB | Conclusions / remarks |
|---|--|---|------------------------------------|
| Table of contents | | Document does not exist in TTC/ARIB. | |
| 2. Foreword | | | |
| 3. Scope | The main scope is the UE RRC states and interlayer procedures (RRC and lower layers) during connected mode. | No document with that scope does exist in TTC/ARIB. | Information only included in ETSI. |
| 4. References | | | |
| 5. Definitions, abbreviations and symbols | | | |
| 6. General Description of Connected Mode | The chapter gives an overview of the connected mode, including the levels of UE connection and the RRC connection mobility handling. | The information does not exist in TTC/ARIB. | Information only included in ETSI. |

| Item | ETSI | TTC/ARIB | Conclusions / remarks |
|---|---|--|--|
| 7. Description of UE states and state transitions | The chapter describes the UE RRC states within connected mode, including possible transitions. | In the MAC specification [3], the UE states are described, with a note that these states may be related to RRC. | If ARIB MAC states are interpreted as RRC states, some differences exist. For example, for the top level states, in ARIB a division into common and dedicated channel states is done, while ETSI divides into cell and URA connected states. <i>Note: The ARIB MAC state model is similar to the ETSI UE state model in version 0.1.0 of YY.03.</i> |
| 8. Radio access bearer control – overview of procedures | The chapter identifies and groups the parameters used for some procedures, and proposes also a division into elementary procedures for some of the functionality. | TTC/ARIB does not include this text. However, in the TTC/ARIB RRC protocol document [2], procedures and parameters are described. | The RRC protocol specification of TTC/ARIB is in line with YY.03 regarding the list and grouping of parameters but contains also more information. |
| 9. Examples of procedures | The chapter provides some examples of operation, including inter-layer communications for a number of procedures. | TTC/ARIB does not include the information. | Information only included in ETSI. |
| 10. Traffic volume monitoring | The chapter identifies a monitoring algorithm in the UE, based on transmitter buffer status. | In the ARIB MAC specification, a traffic volume monitoring function is described, as part of MAC. | No main difference. |

4 CONCLUSION

A 3GPP document, with the scope to describe the UE procedures in connected mode, could be created using information from this contribution and the referenced specifications.

5 REFERENCES

- [1] YY.03; v 0.4.0, Description of UE states and procedures in connected mode
- [2] Draft UE-UTRAN L3 RRC Signaling Protocol , Vol. 9, Ver. 1.0.0
- [3] MAC Sublayer Specification for 3G Mobile System (Ver.1.0)