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**Reconfigurable Radio Systems (RRS);  
Mobile Device (MD) information models and protocols;  
Part 3: Unified Radio Application Interface (URAI)**

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Reference

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## Foreword

This European Standard (EN) has been produced by ETSI Technical Committee Reconfigurable Radio Systems (RRS).

The present document is part 3 of a multi-part deliverable covering the Mobile Device (MD) information models and protocols, as identified below:

ETSI EN 303 146-1: "Multiradio Interface (MURI)";

ETSI EN 303 146-2: "Reconfigurable Radio Frequency Interface (RRFI)";

**ETSI EN 303 146-3: "Unified Radio Application Interface (URAI)";**

ETSI TS 103 146-4: "Radio Programming Interface (RPI)".

<b>National transposition dates</b>	
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## Modal verbs terminology

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# 1 Scope

The scope of the present document is to define an information model and protocol for unified radio application interface for mobile device reconfiguration. The work is based on the Use Cases defined in ETSI TR 102 944 [i.1], on the system requirements defined in ETSI EN 302 969 [1] and on the radio reconfiguration related architecture for mobile devices defined in ETSI EN 303 095 [i.2] and on the mobile device information models and protocols related Multiradio Interface defined ETSI EN 303 146-1 [i.3].

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## 2 References

### 2.1 Normative references

References are either specific (identified by date of publication and/or edition number or version number) or non-specific. For specific references, only the cited version applies. For non-specific references, the latest version of the referenced document (including any amendments) applies.

Referenced documents which are not found to be publicly available in the expected location might be found at <http://docbox.etsi.org/Reference>.

NOTE: While any hyperlinks included in this clause were valid at the time of publication, ETSI cannot guarantee their long term validity.

The following referenced documents are necessary for the application of the present document.

- [1] ETSI EN 302 969 (V1.2.1) (11-2014): "Reconfigurable Radio Systems (RRS); Radio Reconfiguration related Requirements for Mobile Devices".

### 2.2 Informative references

References are either specific (identified by date of publication and/or edition number or version number) or non-specific. For specific references, only the cited version applies. For non-specific references, the latest version of the referenced document (including any amendments) applies.

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The following referenced documents are not necessary for the application of the present document but they assist the user with regard to a particular subject area.

- [i.1] ETSI TR 102 944: "Reconfigurable Radio Systems (RRS); Use Cases for Baseband Interfaces for Unified Radio Applications of Mobile Device".
- [i.2] ETSI EN 303 095 (V1.2.1): "Reconfigurable Radio Systems (RRS); Radio Reconfiguration related Architecture for Mobile Devices".
- [i.3] ETSI EN 303 146-1: "Reconfigurable Radio Systems (RRS); Mobile Device Information Models and Protocols; Part 1: Multiradio Interface (MURI)".
- [i.4] ETSI EN 303 146-2: "Reconfigurable Radio Systems (RRS); Mobile Device Information Models and Protocols; Part 2: Reconfigurable Radio Frequency Interface (RRFI)".
- [i.5] ETSI TR 102 839: "Reconfigurable Radio Systems (RRS); Multiradio Interface for Software Defined Radio (SDR) Mobile Device Architecture and Services".
- [i.6] IEEE 1900.4-2009™: "IEEE Standard for Architectural Building Blocks Enabling Network-Device Distributed Decision Making for Optimized Radio Resource Usage in Heterogeneous Wireless Access Networks".
- [i.7] Recommendation ITU-T X.680: "Information technology - Abstract Syntax Notation One (ASN.1): Specification of basic notation".