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Technical Report

Reconfigurable Radio Systems (RRS); Use Cases for Reconfigurable Radio Systems operating in IMT bands and GSM bands for intra-operator scenarios

Reference
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Foreword

This Technical Report (TR) has been produced by ETSI Technical Committee Reconfigurable Radio Systems (RRS).

Introduction

The present document describes how Reconfigurable Radio Systems can be exploited in IMT bands and GSM bands to increase the efficiency of the radio resource management in the intra-operator scenarios for which the spectrum resources are assigned to and managed by a single operator.

1 Scope

The present document collects operating network scenarios - to be described in the form of system use cases - for Reconfigurable Radio Systems operating in IMT bands and GSM bands i.e. licensed spectrums allocated to IMT and GSM systems.

Use cases will focus on intra-operator scenarios for which the spectrum resources are assigned to and managed by a single operator.

Use cases will be described at the system functionality level and do not have to be confused with the features/requirements of the system under consideration. A use case may be related to one or more features/requirements, a feature/requirement may be related to one or more use cases. Moreover, the use cases will identify actors and information flows, and will form the basis of system requirements work at TC RRS for Software Defined Radio (SDR) systems and Cognitive Radio (CR) systems.

2 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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2.1 Normative references

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

Not applicable.

2.2 Informative references

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 102 683: "Reconfigurable Radio Systems (RRS); Cognitive Pilot Channel (CPC)".

3 Definitions and abbreviations

3.1 Definitions

For the purposes of the present document, the following terms and definitions apply:

Cognitive Radio System (CRS): radio system employing technology that allows the system to obtain knowledge of its operational and geographical environment, established policies and its internal state; to dynamically and autonomously adjust its operational parameters and protocols according to its obtained knowledge in order to achieve predefined objectives; and to learn from the results obtained

Reconfigurable Radio Systems (RRS): generic term for radio systems encompassing Software Defined and/or Cognitive Radio Systems