

Satellite Earth Stations and Systems (SES); Advanced satellite based scenarios and architectures for beyond 3G systems

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Reference

DTR/SES-00288

Keywords

3G, architecture, MSS, satellite

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Foreword

This Technical Report (TR) has been produced by ETSI Technical Committee Satellite Earth Stations and Systems (SES).

Introduction

The analysis contained in this Technical Report is intended to assist ETSI in defining future standardisation activities; specifically standardisation for the medium-term evolution of current SatCom "2G" and "3G" standards, and for the long-term definition of future "4G" SatCom standards.

The material presented in this Technical Report represents the efforts of many research facilities which include ETRI, University of Surrey, University of Bologna, ESA and CNES.

1 Scope

The present document addresses the role of satellite communications as terrestrial communication systems begin to evolve towards beyond 3G and 4G architectures.

The present document identifies the possible roles of satellites in beyond 3G and 4G networks and how to make the best use of innovative technologies in order to achieve these roles. The present document makes a contribution in these directions, by identifying possible future system architectures and roles for satellites in this evolving context. It reviews and analyzes some of the latest communication technologies that would enable satellite systems to realize cost-effectively these architectures and claim these roles.

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- [i.2] ETSI TS 101 851: "Satellite Earth Stations and Systems (SES); Satellite Component of UMTS/IMT-2000; Part 1: Physical channels and mapping of transport channels into physical channels; Sub-part 1: G-family (S-UMTS-G 25.211)".
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