

**Institutional Sign In**

**Browse**

**My Settings**

**Get Help**

**Subscribe**

Advertisement

Browse Journals & Magazines > IEEE Communications Magazine > Volume: 44 Issue: 3

[Back to Results](#) | [Next >](#)

## Technical solutions for the 3G long-term evolution

**Sign In or Purchase**  
to View Full Text

**301**  
Paper  
Citations

**31**  
Patent  
Citations

**2504**  
Full  
Text Views

**Related Articles**

[Mercer kernel-based clustering in feature space](#)

[Optimization-based transistor sizing](#)

[View All](#)

**7**  
Author(s)

H. Ekstrom ; A. Furuskar ; J. Karlsson ; M. Meyer ; S. Parkvall ; J. Torsner ; M. Wahlqvist

[View All Authors](#)

<b>Abstract</b>	Authors	Figures	References	Citations	Keywords	Metrics	Media
-----------------	---------	---------	------------	-----------	----------	---------	-------

**Abstract:**

Work has started in the 3GPP to define a long-term evolution for 3G, sometimes referred to as super-3G, which will stretch the performance of 3G technology, thereby meeting user expectations in a 10-year perspective and beyond. The fundamental targets of this evolution - to further reduce user and operator costs and to improve service provisioning - will be met through improved coverage and system capacity as well as increased data rates and reduced latency. This article presents promising technologies to fulfil these targets, including OFDM, multi-antenna solutions, evolved QoS and link layer concepts, and an evolved architecture. Furthermore, the results of a performance evaluation are presented, indicating that the requirements can indeed be reached using the proposed technologies.

**Published in:** IEEE Communications Magazine ( Volume: 44, Issue: 3, March 2006 )

**Page(s):** 38 - 45

**INSPEC Accession Number:** 8935280

**Date of Publication:** 20 March 2006

**DOI:** 10.1109/MCOM.2006.1607864

**Print ISSN:** 0163-6804

**Publisher:** IEEE

**Sponsored by:** IEEE Communications Society

Advertisement

 **Contents**

**Background and Targets for 3G Evolution**

Third-generation (3G) wireless systems, based on wideband code-division multiple access (WCDMA) radio access technology, are now being deployed on a broad scale all over the world. The first step in the evolution of WCDMA has also been taken by the Third Generation Partnership Project (3GPP) through the introduction of high-speed downlink packet access (HSDPA) [1] and enhanced uplink [2]. These technologies provide 3GPP with a radio access technology that will be highly competitive in the mid-term future.

[Read document](#)

