

TRENDS IN
TELECOMMUNICATION
REFORM
SPECIAL
EDITION
4TH GENERATION
REGULATION:
DRIVING DIGITAL
COMMUNICATIONS
AHEAD



The Telecommunication Development Bureau (BDT) of the International Telecommunication Union (ITU) is pleased to present this special edition of Trends in Telecommunication Reform, released on the occasion of the World Telecommunication Development Conference (WTDC) 2014, which spotlights the theme of “Fourth-Generation Regulation: Driving Digital Communications Ahead.” This theme of an evolved and re-conceived regulatory environment for information and communications technologies (ICTs) was explored at the Global Symposium for Regulators (GSR) held in Poland in 2013.

The Trends report continues its role as a channel for ongoing dialogue between ITU/BDT and the world’s ICT regulators. Each chapter in this edition of Trends identifies ways for fourth-generation regulators to rise to the challenges of the new, converged ICT sector. 4G regulation is about evolution, not radical change. As in a family or society, lessons learned from the past – or from other regulators dealing with similar changes – retain their usefulness as they are applied to novel situations. The future will be one of opportunity and diversity in technologies and services.

This special edition contains eight chapters that explore the policy and regulatory issues coming to the fore as the ICT sector accelerates into a broadband ecosystem of evolving applications and services.

- **Chapter 1** identifies the key ICT market and regulatory trends emerging and spreading throughout the globe.
- **Chapter 2** discusses the rise of the “fourth-generation regulator” who must oversee an increased range of services, delivered over multiple broadband and converged networks that form the new digital reality.
- **Chapter 3** explores the new electromagnetic spectrum realm of Television White Spaces (TVWS), a pioneering regulatory construct that attempts to make use of spectrum sharing in the Intervals between existing TV broadcasting transmissions.
- **Chapter 4** reviews current models for interconnection and how well they still apply in a new era of broadband Internet access and next-generation networks.
- **Chapter 5** examines the world of digital broadcasting and online content delivery, which are revolutionizing the delivery of video content, upsetting traditional business models and blurring the boundaries between the broadcasting and telecommunications markets.
- **Chapter 6** takes up the subject of today’s burgeoning trend of mobile payments and digital transactions, which are on the verge of rapid growth around the world despite ongoing practical and regulatory issues.
- **Chapter 7** underlines the need for additional IP addresses and spotlights efforts around the world to accelerate the transition from IPv4 to IPv6 addresses, taking a business-case perspective to examine how IPv6 can make sense in practical terms.
- **Chapter 8** wraps up the overall conclusions of this special edition.

This special edition is available in electronic format for free download, at:

www.itu.int/trends-special

The report was prepared by ITU’s Regulatory and Market Environment Division (www.itu.int/treg).