



# **ITU-T Workshop** **on Opportunities and Challenges** **in Home Networking**

**13-14 OCTOBER 2005, ITU HEADQUARTERS, GENEVA, SWITZERLAND**

## **Introduction**

ITU-T will host a workshop entitled “**Opportunities and Challenges in Home Networking**” on 13 and 14 October 2005 in Geneva.

Home networking is the linking of all types of electronic devices for applications such as entertainment, telecommunication, home automation systems and telemetry (remote control and monitoring systems). And given the wide range of previously unrelated technologies involved, standards that allow for interoperability are seen as key to the successful marketing of the concept.

The event is organized by **ITU-T Study Group 9**, in cooperation with several other ITU-T study groups and various organizations outside of ITU. It follows the **Workshop on Home Networking and Home Services** held 17-18 June 2004, Tokyo.

Study Group 9 has been working on standardization in home networking systems for more than four years. It has already approved three ITU-T Recommendations in the field. A current focus is a new Recommendation that will specify ways to bridge conditional access systems (that ensure payment in pay TV for example) to digital rights management (DRM) systems, an important step toward smooth operation of fully integrated home networking.

This workshop will bring together experts from all over the world who are pushing forward the frontiers of this fast-moving field. It will provide an overview of the technology as well as an examination of standards that address access, services, performance, Quality of Service, electromagnetic interference and security issues. The workshop will deal with current technology and future trends to provide a

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framework for moving forward standardization work. Attention will be given to both the technology and service aspects of this new technology.

## **Objectives**

The specific objectives of this workshop include:

- Present current and planned activities for the integration in the home network of the Internet, multimedia services and applications, interactive broadcasting, telephony, domestic appliances and telemetry
- Outline the service and business models for home networking

- Consider the support of home networking in next-generation networks
- Review the existing international standardization framework and promote its applications in the deployment of home networking solutions
- Identify future requirements for international standardization and collaboration with ITU-T/R study groups, ISO/IEC, standards development organizations (SDOs), forums, etc.

There is no charge for participation in the workshop but advance registration is required.

# ITU-T Workshop

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### Advance Programme

DAY 1 (THURSDAY 13 OCTOBER 2005)

#### SESSION 1: WORLDWIDE STATUS OF HOME NETWORKING

**Objectives:** This session will provide an introduction to the workshop and give an overview of the current developments in home networking in the Asia-Pacific region, the Americas and Europe. It will also provide details of standards development in ISO/IEC and ITU.

#### SESSION 2: HOME NETWORK ARCHITECTURE AND TECHNOLOGIES

**Objectives:** This session will discuss networking architectures and technologies for home and access networks, as well as bridging these two networks. The technologies include not only the various transmission media technologies such as cable, metallic twisted pairs, optical fibres, power-line and wireless, but also plug-and-play technologies for seamless connection in the home as well as the integration of consumer electronics (CE) and terminal devices into the home network.

#### SESSION 3: HOME NETWORKING SERVICES AND BUSINESS MODELS

**Objectives:** This session will review the services and applications foreseen by telecommunication service providers, the broadcasting community and the home-appliance industry. The focus will be on the interworking aspects of service capabilities and on business models. In addition, requirements for home networking architecture and for interworking devices (e.g. home gateways) will be addressed.

#### SESSION 4: SECURITY AND DIGITAL RIGHTS MANAGEMENT

**Objectives:** This session will discuss the security infrastructure required for remote access to home networks, how to adopt the existing security technologies into home networks, digital rights management, and content protection for home networks. The technologies will focus on authentication, authorization, content filtering, secure tunnelling, copy protection, and digital rights management technologies for home networks.

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DAY 2 (FRIDAY 14 OCTOBER 2005)

### SESSION 5: QUALITY OF SERVICE IN THE HOME NETWORK

**Objectives:** This session will focus on the residential gateway and integrating the home network into an end-to-end Quality of Service (QoS) network solution. The session will examine QoS control in relation to new services (such as triple play and multiservice distribution), and links with NGN QoS architecture. In addition it will cover the latest developments in home-networking QoS.

### SESSION 6: ELECTROMAGNETIC INTERFERENCE IN THE HOME ENVIRONMENT

**Objectives:** This session will present the installation techniques required to achieve equipment protection and user safety in the home environment. The session will also discuss electromagnetic compatibility (EMC), security and regulatory issues associated with the wireline and wireless technologies used in the home environment.

### SESSION 7: THE HOME NETWORKING FUTURE: EFFORTS AND CHALLENGES

**Objectives:** Home networking is rapidly evolving from both a technical perspective and a service perspective. Many great opportunities lie ahead. In order for these opportunities to become a reality, a number of interesting challenges will have to be met. This session examines the challenges and issues that face home networking moving forward, as well as the efforts that are emerging to address these challenges.

### SESSION 8: PANEL – WRAP-UP

**Objectives:** This session will give an overview of the workshop by drawing the main conclusions and messages from the various sessions of the workshop and in particular examine what is required in order to put an overall system in place and what new standards may be needed. It will also provide a final opportunity for questions and comments from the workshop participants.

For updated information, please see: [www.itu.int/ITU-T/worksem/homenetworking](http://www.itu.int/ITU-T/worksem/homenetworking)

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