ITU Workshop on Home Networking and Home Services

17-18 June 2004, Tokyo, Japan

Home Networking is moving beyond linking PCs in the home, to the linking of all sorts of electronic devices. As well as the more obvious applications of entertainment and telecommunications, research and development engineers are looking at the integration of home-automation systems, telemetry services and even health monitoring systems into home networks. And, as more consumers seek to link home appliances such as TVs, PCs and even refrigerators, industry has seen calls to produce more standards in the area.

ITU-T's Workshop on Home Networking and Home Services, 17-18 June 2004, Tokyo, will provide an overview of this technology as well as an examination of standards that address interworking, performance, QoS and security issues. The workshop aims to provide a review of existing technology in order to identify future trends and to move forward standardization work. Attention will be given to both the technology and service aspects of this new technology.

The workshop will be user-premises centric, mostly examining local area network (LAN) technologies (WiFi, home phoneline, coaxial, optical fibre, Ethernet) looking at access technology – DSL, CATV, satellite, etc. – only in a supporting role.

Workshop objectives:

- Promote international standardization in home networks
- Study integration of IP, broadcasting and image information services and their relationship with visions for NGN
- Identify future requirements for international standardization and collaboration with ITU-T/R Study Groups, SDOs, forums, etc.

ADVANCE PROGRAMME

Day 1   Thursday 17 June 2004   09:30-17:30

Session 1: Welcome speech and regional industry overviews

09:30 – 10:30   Opening address: Director of TSB
Workshop purpose and objectives: Mr R. Green, ITU-T SG 9 Chairman
Welcome speech: Japan
Industry overview 1: Japanese perspective
Industry overview 2: European perspective
Industry overview 3: North-American perspective

Session 2: Latest developments in home network transport technologies

11:00 – 12:30   *Objectives:* Introduce networking technologies designed to move media and data throughout the home. This session will focus on the next generation of moving video, audio, and images between devices and will conclude with a comparison of the technologies.

Topics:
- Wireless transport
- Home phoneline transport
- Optical and other transport

Session Chairman: Mr S. Palm, ITU-T SG 15, Broadcom, USA

Session 3: Home network architectures

14:00 – 15:30   *Objectives:* Provide an overview of network architectures and elements to be deployed over IP and non-IP domains. Discuss seamless connection between WAN and LAN through residential gateway and portal functions. Introduce ways of ensuring that devices can communicate across IP and non-IP domains; explore how different protocols in these two domains communicate with each other. Explore standardization efforts to address these issues.

Topics:
- Home network architectures
- Bridging to CE devices
- Connecting a home network to the outside world

Session Chairman: Mr M. Matsumoto, ITU-T SG 9, NEC Magnus Communications Ltd, Japan

Session 4: Content discovery, presentation, and protection

16:00 – 17:30 *Objectives:* Introduce the topics of content discovery, presentation, and protection, understand how they interrelate, and establish why they are all critical elements of a home-network-based content distribution architecture. Discuss current technologies for protecting digital content. Explore each of the topics in detail, from a technical perspective, to understand the current state of the art. Explore standardization efforts that are currently under way to address these issues.

Topics:
- Content protection
- Finding services, UPnP/DHWG
- Picture encryption and watermarking

Session Chairman: Mr R. Brown, ITU-T SG 9, CableLabs, USA

Day 2   Friday 18 June 2004   (09:00-17:30)

Session 5: Home network security

09:00 – 10:30 *Objectives:* This session aims to highlight security requirements in the home network environment with a focus on the convergence of telecommunications and broadcasting. Countermeasures such as firewalls, intrusion detection/prevention systems and authentication devices will also be discussed.

Topics:
- Securing home networks
- Firewall protection
- Device authentication

Session Chairman: Mr K. Nakao, ITU-T SG 17, KDDI, Japan

Session 6: Home network quality of service

11:00 – 12:30 *Objectives:* Identify the critical quality of service (QoS) issues associated with home networking, particularly from an audiovisual content distribution perspective. Explore state-of-the-art QoS implementations for various home network transport types. Contrast the differences between parameterized vs. prioritized QoS, and examine why this contrast is controversial, and which will win out in the short and long term. Understand QoS requirements for transporting video over a home network. Explore the standardization efforts that are currently under way to address these issues.

Topics:
- Managing QoS
- Prioritized vs. parameterized QoS
- Requirement for video transport

Session Chairman: Mr S. Saunders, ITU-T SG 9, CableLabs, USA

Session 7: Home network services today and tomorrow

14:00 – 15:30 *Objectives:* This session explores – with a focus on convergence of telecommunications and broadcasting – new service possibilities in the home network environment and implications for network system design.

Topics:
- Review of home network services based on open services gateway
- Home server/network system toward digital broadcasting
- What the future might bring

Session Chairman: Mr S. Okubo, ITU-T SG 16, Waseda University, Japan

Session 8: Round table and wrap-up discussions

16:00 – 17:30 Session Chairmen: Mr R. Green, ITU-T SG 9, CableLabs, USA, and Mr M. Matsumoto, ITU-T SG 9, NEC Magnus Communications Ltd, Japan

Updated programme: *http://www.itu.int/itu-t/worksem/hnhs/index.html*

Online registration: *tsbreg@itu.int* by 15 May 2004

NOTE: The workshop is preceded by a Seminar session on 16 June. The Seminar is a tutorial which will be given in Japanese, and is organized by the Institute of Image Information and Television Engineers, Japan. Information will be available at the following address: *http://www.ite.or.jp/index.html*