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ISO/IEC/JTC1/SC25/WG1 N1338
WG1 (Milan, Schoechle) 1
4 April 2008

ISO/IEC JTC1/SC25: Interconnection of Information Technology Equipment
Working Group 1: Home Electronic System (HES)

TITLE: Confirmed minutes: forty-sixth meeting held at Jeju Island, Korea, September 3–6, 2007

SUMMARY:

The 46th meeting of the international standards committee on Home Electronic System (WG1) was held during the week of September 3, 2007 at Jeju Island, Korea. Administrative matters, liaison reports, and discussion of the key projects of WG1 occupied the 1st day. The 2nd and 3rd days were devoted to the introduction of various technical papers, activity reports, and discussion of various detailed organizational and technical issues. The 4th and final day was devoted to completion of technical discussions, wrap up, preparation of action items and resolutions, scheduling and the preparation of new work items.

ATTENDEES:

<u>Name</u>	<u>Country</u>	<u>Status</u>	<u>Affiliation</u>
Mr. John Ward	Australia	Expert	Jamsam Cable Check
Mr. Robert Bothe	Belgium	Expert	Niko, BEC
Dr. Jo Walling	Canada	Expert	consultant
Mr. Michael Ding	China	Expert	IGRS Engineering Lab Ltd./Lenovo
Mr. Xiaobing Guo	China	Expert	Lenovo
Dr. Mrs. Dongya Wu	China	Expert	CESI
Ms. Lan Zhuo	China	Expert	CESI
Mr. Dominique Roche	France	Expert	Orange Corp., ETSI, AT&TH
Mr. Hans Langels	Germany	Expert	Siemens AG
Mr. Shuji Kobayashi	Japan	Observer	METI JISC
Mr. Kazuhiro Sato	Japan	Expert	NTT
Mr. Akira Toba	Japan	Expert	Echonet/Toshiba Carrier Corp.
Mr. Kazuyuki Yamamoto	Japan	Expert	Matsushita Electric Works, Ltd.
Mr. Jin-Seok Bae	Korea	Expert	KATS
Dr. Jun-seon Baek	Korea	Observer	LeiiTech
Mr. Kwang-soon Choi (Th)	Korea	Expert	KETI
Dr. Ho-In Jeon	Korea	Expert	Kyung-won University
Mr. Young-Sik Jeong	Korea	Expert	Wonkwang University
Mr. Kwangmo Jung (Th)	Koera	Expert	KETI
Dr. Keyong-Deok Moon	Korea	Observer	ETRI
Mr. Senam Oh	Korea	Observer	KSA
Dr. Jun-Hee Park	Korea	Observer	ETRI
Mr. Dae-Young Seo	Korea	Expert	Korea Polytechnic University
Mr. Woojin Shim	Korea	Expert	SK Telecom
Dr. Young-Sung Son	Korea	Expert	ETRI
Dr. Hawthorne Suh	Korea	Expert	Korean Intellectual Property Office
Mr. Eric van Nijhuis	The Netherlands	Expert	Philips
Dr. Per Kaijser	Sweden	Expert	RCS Technology AB
Mr. Vijay Dhingra	USA	Expert	Echelon Corporation
Mr. Toshihiro Inokuchi	USA	Expert	Panasonic
Mr. Alan Messer (Thu)	USA	Liaison	UPnP Forum/Samsung Electronics
Dr. Tim Schoechle (Secretary)	USA	Expert	CyberLYNX Technology

Robert Snively (Th)	USA	Observer	INCITS T11
Mr. Geoff Thompson (Tu)	USA	Expert	Nortel
Dr. Ken Wacks (Convener)	USA	Expert	TIA, Home Systems Consultant
Ms. Grace Wei	USA	Expert	Intel Corporation
Mr. Greg Jones		Liaison	ITU-T

PROCEEDINGS: [Note that numbering corresponds to agenda items and may not follow in numerical order.]

Monday, September 3, 9:30 am.

1. Opening of the Meeting.

The Convener, Dr. Ken Wacks welcomed the WG1 participants to Jeju and he expressed his appreciation to Mr. Jin-Seok Bae of the Korean Agency for Technology and Standards (KATS) for the meeting arrangements. Dr. Wacks then welcomed those attending the meeting and introduced Mr. Bae, who then also welcomed the attendees and extended an invitation to a special welcome dinner and Korean traditional performance to be hosted on Wednesday evening by KATS. The Convener then asked the participants to introduce themselves individually.

2. Review and approval of agenda

A proposed agenda for the meeting N1270a *Proposed Agenda for Meeting (Jeju, September, 2007)* was presented.

2.1 Update of participant roster/ mailing list

The Membership roster and WG1 reflector lists were presented. The Secretary requested that each participant review the roster and reflector lists and update any information on it, with special attention to the e-mail address, if one exists. The Secretary reported that the minutes and the agenda had been posted on the WG1 website and the participants and National Bodies had been duly notified by email.

2.2 Review of agenda and assignment of new contributions

Various new contributions and a proposed document register were reviewed and items were assigned to the agenda. After further discussion, the proposed Agenda was amended and adopted.

3. Approval of unconfirmed minutes of the previous meeting

3.1 Review of previous meeting minutes

The Convener reviewed document N1268 *Unconfirmed Minutes: 45th meeting held in Tours*, the unconfirmed minutes of the previous meeting, which included the resulting resolutions and action items. Various corrections and additions were proposed at the meeting. They were discussed, and the minutes were then confirmed by consensus of the Working Group and issued as WG1/N1286.

3.2 Review of previous meeting action items

The Convener reviewed document N1267 *WG1 Action Items from Tours meeting*. He then called the attention of the meeting to the program of work.

4. Liaison Reports

The Convener called the attention of the Working Group to the topic of liaison reports.

4.1 IEC TC100—Audio/Video

No formal report was available. Barrett reported that a meeting between TC-100 and the SC25 Secretary had been held for May Warsaw in conjunction with the TC-100 plenary and that no joint projects had been identified.

4.2 JTC1 SC25/WG3—Premises Wiring (Pattay)

No report was available.

4.3 CENELEC TC205 WG5—Residential Gateway (Colebrook)

No report was available.

4.4 ITU-T SG 9—Video Distribution (Yamamoto)

No report was available.

4.5 ISO TC205 WG3—Building Automation & Protocols (Wacks)

No report was available. Wacks reported that he expected a report before the end of the meeting.

4.6 JTC1 SC27—Info Tech Security Techniques (Kaijser)

Kaijser reported that SC27 had not directly responded to our questions, but that the SC27 Chairman had apologized and may prepare a liaison statement. He further reported that SC27 planned to have their next meeting in Switzerland and that he intended to attend if he could obtain travel support.

4.7 JTC1/SC32 WG2—Metadata (Schoechle)

No report was available.

4.8 JTC1/SC25—Interconnection of IT Equipment (Wacks)

No report was available.

4.9 CENELEC TC205 WG16—Monitor Single Residential Environment in Europe [e.g., Konnex] (Colebrook)

No report was available.

4.10 EIA/CEA R7—Home Networks (Wacks)

Wacks reported on the current activity in the Consumer Electronics Association (CEA) R7 committee meeting and the progress of the associated CEA IPTV OCC (oversight and coordination committee).

4.11 IEC/TC59—Household Appliances (Pattay)

No report was available.

4.12 IEC/TC61—Safety of Household Electric Appliances (Wacks)

No report was available.

4.13 IEC/TC86—Optical Fiber (Pattay)

No report was available.

4.14 INCITS V2—IT Access Interfaces (Farance)

No report was available.

4.15 JTC1/SC22 WG11—Abstract Data Types (Farance)

No report was available.

4.16 JTC1—Information Technology (Farance)

No report was available.

4.17 JTC1 SC36—Info Tech for Learning, Ed. & Training (Farance)

No report was available.

4.18 ITU-T SG 15 Q4—DSL (Jones)

Jones of the ITU-T (formerly CCITT) gave an introduction to the history, structure, and processes of the ITU-T. He then spoke about ITU-T activities in home networking and about the potential overlap with home system and equipment. He noted that the ITU-T, including various Study Groups and other sub-groups, were interested in and wanted to work with WG1. He specifically noted that Andrew Nunn of BT had been appointed as Chairman for Joint Coordination Activity for Home Networking for ITU-T.

Jones called attention to document N1279 *ITU Home Network Architecture (25N1359)* and reported that at its June 2007 meeting, ITU-T Study Group 15 (SG 15 *Optical and other transport network infrastructures*) agreed to begin work on a new ITU-T Recommendation on Home Network Transport Architecture. He further reported that the DSL Forum was working closely with ITU SG 15 and was interested in the HES-gateway project. He then called attention to document N1280 *FG IPTV activities on home network-ITU Liaison Report (25N1370)*, and he reported that the ITU FG IPTV was very interested in the HES-gateway project and had requested feedback from WG1 on their FG IPTV work. Schoechle undertook to respond to both ITU groups. Jones undertook to forward any relevant documents to the DSL Forum and to other interested groups, including DSL Forum and Home Gateway Initiative (HGI). Further discussion of the ITU documents was deferred, to be covered under the topic 6.7—HES Residential Gateway.

4.19 IEC TC79—Alarm Systems ()

No report was available.

4.20 DSL Forum—Digital Subscriber Line (Wacks)

No report was available (see report mentioned in ¶ 4.18 above).

5 Activity Reports

The Convener deferred the topic of Activity Reports until later in the meeting.

6. Review and discussion of the HES work program

The Convener introduced and summarized the HES work program.

6.1 Discussion of *HES Introduction*

No new contributions were presented and no discussion was conducted.

6.2 Discussion of *HES Terminology (01.01.03: TR 15044)*

The topic of HES Terminology was discussed. Kaijser introduced document 25N1202 *Terminology* from the Project Team Taxonomy Terminology and he described plans to collect terminology from the HES Terminology document and other sources. It was the consensus of the meeting to reaffirm the TR 15044 *HES Terminology* technical report.

6.9 Discussion of *HES Reference Implementation: Home Network Safety (01.09: 20587)*

The topic of HES Safety was discussed. The Convener introduced 1) document N1281 *NWIP safety* (25n1327), a CD that had been circulated for ballot by the SC25 Secretary, and 2) document N1282 *Comments on NWIP safety* (25N1377) providing NB comments on the CD. The Convener reported that the SC25 Secretary had forwarded the comments to WG1 to be resolved. The Convener inquired of the meeting, if anyone had knowledge of the origin of the CD text. None could offer any information. He noted that it is highly unusual for a CD to appear having no prior connection with WG1 and no awareness by WG1 experts—and further that WG1 would then be asked to resolve the comments. He commented that WG1 had collaborated a decade ago with the IEC Advisory Committee on Safety (ACOS) on the preparation of IEC 61508, ISO/IEC TR 14762 *Guidelines for Functional Safety*, and he noted that the mystery CD appeared to address the same technical areas.

The comments were then discussed. Concerns were expressed by the meeting and by the NB comments on various issues, including the appropriateness of the title and scope of the CD. It was the consensus of the meeting that the document and comments needed further detailed work, and to establish a special working party to resolve the comments, extracting the relevant portions of the ISO/IEC TR 14762. The Convener then appointed Langels, Kaijser, Yamamoto, Bothe, Jeon, and Colebrook to a special working party on Safety. Langels undertook to serve as editor and to circulate comments and to the working party and gather their input to the document. Specifically, Langels and Yamamoto undertook to work together on the issue of how the CD would deal with building vs. homes.

The Convener then adjourned the meeting at 6:00 p.m. until the next day at 9:00 am.

Tuesday, September 4, 9:10 am.

6.7 Discussion of *Residential Gateway (01.03.02: 15045-1, -2)*

The topic of the Residential Gateway (ISO/IEC 15054 *HES Gateway*) was then discussed. Wacks presented N1291, *HomeGate: The Residential Gateway*, providing a general overview presentation on the Residential Gateway project. Schoechle, as project editor, provided an update and discussion on Part 2, *Modularity and Protocol*. He commented on the close relationship between the gateway part 2 and the interoperability project part 2, (ISO/IEC 18012-2

Guidelines for Interoperability) related to the Common Interoperability Framework (CIF) and its home network-specific Generic Interworking Functions (GIWFs). Schoechle then offered a new proposed project subdivision that would simplify and modularize the standard, and that 1) showed the relationship between future parts of the gateway standard (a multipart standard) and 2) moved the network-specific interface and Interworking functions (GIWF definitions) into a new part of the standard (part 4). His proposed reorganization of the gateway standard, using examples of specific home networks/applications and suggested project editor responsibilities for purposes of discussion, is shown below:

- Part 1: A Residential gateway model for HES (ISO/IEC 15045-1:2004) Published IS
- Part 2: Modularity and protocol (ISO/IEC FCD 15045-2:2007) US & UK
- Part 3: Gateway management
 - Part 3-1 - Security (eg., ISO/IEC FCD 24767-1, and -2) Japan
 - Part 3-2 - Safety (eg., ACOS TR 14762 and various WG1 documents) CENELEC
 - Part 3-3 - Privacy
 - Part 3-4 - UMB (eg., WG1/N1262) Korea
- Part 4: Network interfaces and interworking functions
 - Part 4-1 - Konnex (eg., ISO/IEC 14543-4) Germany
 - Part 4-2 - Echonet (eg., ISO/IEC 14543-4-1) Japan
 - Part 4-3 - LonTalk (eg., EN14908/CEA-709) US
 - Part 4-4 - ITopHome (eg., WG1/N1207) China
 - Part 4-5 - WiBEEM (eg., WG1/N1271-1275) Korea
 - Part 4-x - [additional parts as required and proposed]
- Part 5: Service application interfaces and interworking functions
 - Part 5-1 - Home network management (eg., ISO/IEC CD 29401-1, -2, and -3; CMP) Korea
 - Part 5-2 - CableHome Services (eg., ITU-T SG9) Cable Labs/ITU-T SG9
 - Part 5-3 - DSL-Home Services (eg., ITU-T SG15 Rec G-HNTA) DSL Forum/ITU-T SG15
 - Part 5-4 - Gateway function for Broadcasting (e.g., proposed part) Japan
 - Part 5-5 - IPTV Services (eg., ITU-T FG IPTV-OL-0073) CEA OCC-IPTV/ ITU-T FG:IPTV
 - Part 5-6 - UPnP
 - Part 5-7 - IGRS
 - Part 5-x - [additional parts as required and proposed]

The proposal was briefly introduced and then further discussion was left for later.

Schoechle then presented document N1259 *Resolution of Comments on N1256 FCD 15045-2 Gateway (25N1236)* proposing final resolution of all the comments on the first FCD as had been discussed at the last meeting in Tours. He then presented document N1278 *Gateway Pt 2: FCD 15045-2 (WGIN1256 revised draft)*, a new proposed draft for circulation as a 2nd CD. He noted that, in response to comments on the draft and to discussion in Tours, he had replaced the terminology “half gateway” with “HES-link module.” The convener then deferred further discussion of the draft and the subdivision until later in the meeting.

The subject of the systematic review and proposed renewal of HES Gateway, part 1 (published in 2004) was then discussed. The convener appointed a working party consisting of Schoechle and Kaijser to prepare a proposal for consideration later in the meeting.

The subject of the gateway work presently proceeding in ITU-T was then re-opened. Jones returned to his presentation and discussion of document N1279 *ITU Home Network Architecture (25N1359)*. He noted that the recommendation was planned for approval in 2008 and that there was interest in alignment of terminology and functional block diagrams between the SC25/WG1 and SG15 documents.

Jones then discussed document N1280 *FG IPTV activities on home network-ITU Liaison Report (25N1370)*. He again emphasized the strong interest at the ITU-T in the goal of harmonization with WG1 of references and of each other's work. The convener appointed Schoechle to serve as liaison officer with SG 15.

6.8 Discussion of *HES Interoperability (01.07.01: 18012-2)*

The topic of HES Interoperability was then discussed. The convener conveyed the regrets of the project editors Ambrosio and Kaleshi, who were unable to attend the meeting.

Jeon and Son introduced document N1285 *UMB Activity for Interoperability*, related to work on the Universal Middleware Bridge (UMB) project at ETRI in Korea. Son expressed his interest in joining the work of the Interoperability project (ISO/IEC 18012). He noted that among companies in Korea there is reluctance toward investing in home network technology due to interoperability issues.

The Convener adjourned the meeting at 5:30 p.m. until the next day at 9:00 am.

Wednesday, September 5, 9:15 a.m.

6.4 Discussion of *HES Application Services and Protocol (01.04.02-01: 15067-1)*

Jeon presented document N1271 *WiBEEM Technology for Wireless Home Network Services-presentation*. He noted that it was the intention of the Korea national body to submit a NWIP for WiBEEM, a wireless mesh-network protocol developed by SK Telecom with advanced unique features appropriate for home automation and home network applications. He noted some technical differences and advantages over conventional protocols such as Bluetooth and Zigbee.

Jeon presented documents 25N1390, 91, and 89—voting reports on the recently closed ballots for three parts of CD ISO/IEC 29104-1, -2, and -3. The convener appointed a working party (Jeon and Wacks) to deal with ballot resolution on CD 29104 (3 parts; 25N1330 *Centralized Management Protocol (CMP) for ubiquitous home network services - Part 1: Remote management of residential gateways*, 1331 *Part 2: Remote management of application servers*, and 1339 *Part 3: Remote management of networked home devices by user terminals*) and prepare a resolution of comments document. It was the consensus of the meeting that the revised documents should be moved forward for FCD ballot when comments were resolved and new texts were available.

6.5 Discussion of *HES Network Layer and Transport Layer Protocol*

No new contributions were presented and no discussion was conducted.

6.6 Discussion of *HES Process Interfaces (01.05.xx: 10192-x)*

No new contributions were presented. The convener noted that the “simple interface” standard (ISO/IEC 10192) was up for periodic review. It was the consensus of the meeting that the standard should be stabilized.

6.3 Discussion of *HES Architecture (01.04.01: 14543-5-1, -2, -3, -4)*

The topic of HES Architecture was then discussed. Ding then introduced documents N1294 *IGRS Part 21, Application Profile - AV Profile*, N1295 *IGRS Part 22, Application Profile - File Profile*, N1296 *IGRS Part 5, Device Type*, N1297 *IGRS Part 6, Service Type*, and N1298 *IGRS*

response letter to SC25N1422. He reported that the translation for parts 2,5, and 6 had been completed and that the proposed documents had been submitted to the Chinese government for approval, and should be available to WG1 before the end of September. He noted that part 3 would be available later.

The convener appointed a working party (Ding, Yamamoto, Langels, Wei, Jeon, and G erodolle) to deal with ballot resolution when voting is completed. It was the consensus of the meeting that the revised documents should be moved forward for FCD ballot when comments were resolved and new texts are available.

Schoechle introduced document N1276 *The Roadmap of WG1, 2007 Edition* and asked the meeting for comments and recommendations on revision of the document for a proposed 2008 edition. After discussion, the Convener appointed a working party (Schoechle and Wacks) to make minor updates to the document.

6.9 Discussion of *HES Reference Implementation: Home Network Security (01.09: 24676)*

The topic of home network security was discussed. The convener called the attention of the meeting to the pending CD ballot documents 25N1285 and 25N1286. Ward commented that the Australian national body was very concerned about the quality of the security protocol. Yamamoto objected to the discussion because the ballot period was still not closed. The convener agreed and postponed further discussion until the ballots closed. He then appointed a security working party (Toba, Kaijser, Jeon, and G erodolle) to deal with ballot resolution when voting is completed. It was the consensus of the meeting that the revised documents should be moved forward for FCD ballot when comments were resolved and new texts were available.

The Convener adjourned the meeting at 4:45 p.m. until the next day at 9:00 am.

Thursday, September 6, 9:15 am.

6.3 Discussion of *HES Architecture (continued)*

The convener opened the meeting and introduced a guest, Alan Messer of Samsung, representing the UPnP Forum. Messer then presented N1292 *UPnP Overview presentation* describing the UPnP Forum organization (including leadership, membership, and structure) and a technical overview of the UPnP protocol (including overall architecture, device architecture, and device control protocols). He also described the UPnP Implementers Corporation. He noted that UPnP was designed for networks that utilize IP. He confirmed that UPnP was intended to apply to higher level devices and gateways. A substantial Q&A session and discussion followed.

The convener then turned to meeting over to Ding of Lenovo, representing IGRS. Ding presented document N1293 *IGRS Introduction presentation*. Describing the history, membership, leadership, and structure of IGRS. He noted that IGRS had been approved as a national standard in China. He further noted that a simplified version of the protocol for home automation devices was being considered. A lengthy discussion followed. It was observed that WG1 was agreed on multiple standards and to interoperability, and that protocols like UPnP and IGRS should be included in the HES-gateway architecture. It was also observed that it was important to agree on co-existence (*i.e.*, compatibility) first and then on interoperability, so that one protocol should not destroy another.

The Convener adjourned the meeting at 6:00 p.m. until the next day at 9:00 am.

7. Working Party Assignments
8. Reports from project editors on Working Party activities

The Convener asked the project editors to provide any remaining reports on their working parties/editing committees and conclude their work.

9. Administrative
 - 9.1 Update Program of Work

The Convener then formed a working party to update the work program.

- 9.2 Electronic document distribution

The Convener called attention to the WG1 website at <hes-standards.org>.

- 9.3 Liaison changes and requests

Kaijser proposed to request liaison from ETSI, DSL Forum, Home Gateway Initiative (HGI) and UPnP Forum. At the request convener, Kaijser undertook to prepare such liaison request documents.

- 9.4 Resolutions

A list of proposed resolutions was prepared and agreed on by consensus of the meeting.

10. Outreach and promotion

Nothing was reported or proposed.

11. New issues and business

No further new business was proposed.

12. Review of action items, assignments, deliverables, and schedule for next meeting

Action items from the meeting were discussed, compiled, and issued as document N1290 *Action items for WG1 from the Jeju meeting*.

13. Closing of the meeting

The Convener thanked Mr. Jin-Seok Bae of the Korean Agency for Technology and Standards (KATS) for the meeting arrangements and for the excellent administrative support. He thanked KATS especially for the special welcome dinner and Korean traditional dance performance hosted on Wednesday evening.

The Convener then thanked the participants for their hard work and contributions. He further requested that the members remind those not in attendance of the importance and timeliness of the WG1 work and encourage them to focus on attending meetings and providing contributions. The Convener then adjourned the meeting at 3:40 p.m.

UPCOMING MEETING SCHEDULE:

WG1	31 March–5 April 2008	Italy (pending invitation)*
WG1/SC25	September 2008	no information yet available*

* date and venue are subject to change



WG1 N1290

***ACTION ITEMS FOR WG1 FROM THE Jeju MEETING
6 September 2007***

1. **Schoechle** will update WG1/N1220 Roadmap text and figure.
2. **Ambrosio** will review proposal for incorporating UMB and other inputs into 18012 by 1 November.
3. **Schoechle** will update Roadmap with input from experts.
4. **Ambrosio** will clarify plans for 18012 parts.
5. **Ambrosio** will provide updated interoperability CD 18012-2 text for ballot.
6. **Schoechle** will provide updated gateway FCD 15045-2 text for review.
7. **Langels, Kaijser, Yamamoto, Bothe, and Colebrook** will propose ROC for FCD editor of HN Safety.
8. **Schoechle** will request SC25 secretary to prevent cancellation on 24767-3 while liaison discussion with SC27 proceeds.
9. **Ding** will provide updated IGRS FCD 14543-5-1 and -5-4 for ballot.
10. **Kaijser** will edit and issue liaison letter to SC27.
11. **Yamamoto** will establish WP on Security.
12. **Wacks** will contact UPnP Forum to invite technical expert to next meeting
13. **Wacks** will request liaison with UPnP Forum at next plenary.
14. **Kaleshi** will prepare UPnP presentation for next meeting.
15. **Ding** will prepare IGRS presentation for next meeting.
16. **Ambrosio** and **Kaleshi** will review presentations from Xu and Son for relevance to 18012