

<p>RESOLUTION GSC-13/01: (Opening) Continuing Cooperation on IMT Standardization (Revised)</p>

The 13th Global Standards Collaboration meeting (Boston, USA, July 2008)

Recognizing:

- a) that Resolution ITU-R 56 describes a naming scheme for International Mobile Telecommunications whereby “IMT-Advanced” applies to those systems, system components, and related aspects that include new radio interface(s) that support the new capabilities of systems beyond IMT-2000;
- b) that ITU-R Study Group 5 and ITU-T Study Group 19 are continuing studies on IMT (encompassing both IMT-2000 and IMT-Advanced);
- c) that ITU-R Study Group 5 has initiated a process for the development of terrestrial radio interface technologies that will meet the technical and operational requirements of IMT-Advanced;
- d) that core network(s) are increasingly becoming access technology agnostic;
- e) that IMT and other rapidly emerging wireless broadband access technologies will make high-speed wireless access services available where this was not previously possible, thereby enabling access to advanced telecommunication, computing and entertainment services and capabilities, not only for urban but also for rural and other low density environments;
- f) that WRC-07 identified some additional spectrum for the implementation of IMT systems;
- g) that work on evolution of the radio technologies may converge to use similar techniques; and
- h) that there are related international, regional and national research activities in this area.

Resolves:

- 1) to encourage 3GPP, 3GPP2, IEEE, Participating Standards Organizations (PSOs) and others to continue to work on enhancing the IMT standards as an essential part of future telecommunication, computing and entertainment standards;
- 2) to encourage the harmonization of candidate proposals for the radio transmission technologies for IMT and related networking standards;
- 3) to invite 3GPP, 3GPP2, PSOs and others to take care of the evolution of the current systems and the long-term evolution for such systems taking into account copyrights, working procedures, IPR aspects etc. and report to the next meeting for review;
- 4) to exchange information and views on candidate radio interface technologies for IMT-Advanced among PSOs allowing for efficient, effective and timely development of the IMT-Advanced standard;
- 5) to encourage the Task Force under the GRSC to actively help in the exchange of information and views mentioned in 4), with the goal of consensus building; and
- 6) to review this Resolution at future GSC meetings as required.

RESOLUTION GSC-13/02: (Opening) Emergency Communications (Revised)

The 13th Global Standards Collaboration meeting (Boston, USA, July 2008)

Recognizing:

- a) that the Tampere Convention provides a process for implementation of “emergency communications” on an international basis;
- b) Resolution 60/125 on international cooperation on humanitarian assistance in the field of natural disasters, from relief to development, adopted by the United Nations General Assembly in March 2006;
- c) that the United Nations and its agencies are actively coordinating international activities relating to early warning, disaster relief and prevention (*e.g.*, the Working Group on Emergency Telecommunications of OCHA¹, ITU²);
- d) that recent natural disasters have brought into evidence the importance of not only efficient communications facilities for Telecommunications for Disaster Relief, but also for early warning to populations at risk;
- e) that the ITU World Radiocommunication Conference (WRC-07), through the adoption of Resolution 647 (Geneva, 2007), recognized that it is crucial to make immediately available pre-identified and pre-coordinated frequencies, and/or flexible technologies, to allow near-instantaneous decisions on the use of available radio-frequency spectrum;
- f) that WRC-07 instructed the Director of the Radiocommunication Bureau to assist Member States with their emergency communications preparedness activities by establishing a database of currently available frequencies for use in emergency situations, and to collaborate with OCHA and other organizations in the development and dissemination of standard operating procedures and relevant spectrum management practices for use in the event of a disaster situation;
- g) that cooperation and collaboration between Participating Standards Organizations (PSOs), the ITU, and authorities and/or organizations providing early-warning and emergency services are necessary for the provision of coordinated, emergency communications services;
- h) that it is important for PSO authorities and/or organizations providing public protection and disaster relief (PPDR) (*e.g.*, safety and emergency services) in countries across the world to continue to collaborate in the development of technical standards, and to share information on emerging technologies and services, spectrum matters, interoperability issues and applications;
- i) software-defined radio (SDR) and cognitive radio functions³ could facilitate interoperability among public-safety agencies;

¹ UN [Office](http://ochaonline.un.org/) for the Coordination of Humanitarian Affairs <http://ochaonline.un.org/>,

² See <http://www.itu.int/emergencytelecoms/>

³ With regard to the 2011 World Radiocommunication Conference (WRC-11), agenda item 1.19 addresses the consideration of regulatory measures and their relevance, in order to enable the introduction of software-defined radio and cognitive radio systems, based on the results of ITU-R studies.

- j) that significant activity in relation to emergency communications, including such issues as E911/E112/E119 etc., priority access (*e.g.*, wireless priority service or WPS), priority routing [*e.g.*, Government Emergency Telecommunications Service (GETS)], location identification, special handling for emergency communications, public protection and disaster relief activities, is currently being undertaken and expedited in ITU and a range of national, regional and international Standards Development Organizations (SDOs);
- k) that future applications for emergency communications will utilize narrowband, wideband, and broadband techniques in fixed, mobile, Internet, broadcast and other electronic communications networks; and
- l) that in the future, operations that were available and effective in a circuit-switched network (*e.g.*, PSTN), for example, traffic pre-emption, flow control, refusal, and preferential access, may not be possible or effective in current and future packet-based networks unless those needs are identified and communicated to those doing the standardization.⁴

Considering:

- a) that emergency communications can be partitioned into concerns covering communication (1) from individuals/organizations⁵ to authorities and/or organizations providing emergency services, (2) between and among such authorities, (3) from such authorities to individuals/organizations and (4) among affected individuals and organizations;
- b) that it is important for PSOs, authorities and/or organizations providing emergency services in countries across the world to continue to collaborate in the development of technical standards, common definitions and terminology, and to share information on emerging technologies and services that can be used for emergency communications; and
- c) that emergency communications facilities are needed not only on legacy systems, but also in future systems.

Resolves:

- 1) to establish a continuing area of work on “emergency communications” to further encourage cooperation and the sharing of information among SDOs, ITU, and others working on standardization activities relating to communications in emergency situations, in particular addressing:
 - communications from individuals/organizations to authorities;
 - communications between and among authorities;
 - communications from authorities to individuals/organizations; and
 - communications among affected individuals/organizations;

⁴ For example in the USA the National Security Telecommunications Advisory Committee (NSTAC) studies such things as “potential impact of new technologies on NS/EP telecommunications,” and makes recommendations to the President of the United States. http://www.ncs.gov/nstac/reports/fact_sheet/NSTAC%20Fact%20Sheet%2003-09-05.pdf

⁵ Use of the term “individuals/organizations” is intentionally broad and intended to include citizens, non-citizens and visitors, employer-to-employee emergency communications, as well as employer-to-employer, and also encompasses the unique concerns for persons with disabilities and those individuals who may not be fluent in the language(s) or dialects in use in the locus of the emergency or disaster.

including, but not limited to, developing standards applicable to existing and future systems for:

- technical means for delivery of early warnings or alerts from authorities to citizens (*e.g.*, in support of disaster prediction and detection);
 - priority access to emergency call access numbers;
 - provision of location information;
 - suitable technologies for use in networks dedicated to public protection and disaster relief communications;
 - interoperability between public networks and networks dedicated to emergency communications; and
 - priority access by emergency services personnel to communications services;
- 2) to encourage ongoing cooperation and collaboration among national, regional and international activities that relate to emergency communications, such as Project MESA and to provide forums to collect aggregated government users' needs at the local, state or provincial, or national/international level;
 - 3) to encourage PSOs to support ongoing national activity and cooperation between industry, PSOs, administrations and authorities in the establishment of emergency communications and harmonize terminology used, for example, use of the term "emergency communications" and not "emergency telecommunications" in order to embrace and include the widest range of new systems, services, and technologies and not just "telecommunications";
 - 4) to draw to the attention of PSOs the need to examine the characteristics of providing emergency communications over packet-based networks, including Next-Generation Networks; and
 - 5) to enhance collaborative efforts at the international level to make most efficient use of resources and enable a timely and focused approach in the global deployment of systems and solutions.

<p>RESOLUTION GSC-13/03: (Opening) Network aspects of identification systems (Revised)</p>

The 13th Global Standards Collaboration meeting (Boston, USA, July 2008)

Recognizing:

- a) that network aspects of identification systems (NID) include RFID (Radio-Frequency Identification) and USN (Ubiquitous Sensor Network);
- b) that global standards are of major importance, since large deployment of NID devices is very much dependant on the cost factor; and that the elaboration of specifications for network capabilities and interfaces that could be used on a global basis would be beneficial to the industry and regulatory authorities;
- c) that the GSC produced Resolutions GSC-9/7, 10/9 and 11/3 on EAS (Electronic Article Surveillance) and RFID and the need to maintain such activities as being of high interest;
- d) that, in the past, applications of NID were focused on systems working in a local environment and on specific areas like logistics, supply chain management, access control, etc. and that there is potentially now a wide range of applications;
- e) that NID devices are increasingly becoming integrated elements of complex applications, for which networking capabilities are needed;
- f) that telecommunications services can also include service capabilities based on NID applications (e.g., RFID reader in mobile phones for presence indication, mobile payment, local information retrieval);
- g) that with large-scale deployment of NID standards for frequency allocations, radio requirements, protocols and network interfaces maybe be needed with due consideration to the security and privacy aspects, and regulatory and governance implications; and
- h) that the ITU-T has begun work on global standardization for NID.

Considering:

- a) the need for common enabling mechanisms in protocols and services in support of highly disbursed data collection and management systems and services, such as those enabled by NID;
- b) that the requirements for Radio-Frequency Identification and similar applications should be standardized on a global basis;
- c) that international standards that support a number of applications already exist and that additional standards are necessary for effective global solution deployments;
- d) that national, regional and international standards defining NID schemes already exist and that any effective global solution should consider these existing NID schemes;
- e) that different standards organizations are best positioned to produce the different types of standards necessary;
- f) that the ITU has initiated development of Recommendations related to NID and has established an NID coordination mechanism; and that SDOs are developing international standards for aspects of the NID solution; and

- g) the importance of the coordination in the development of global standards due to the complexity of the subject in terms of technical, regulatory (*e.g.*, radio communication and spectrum issues), communication interface (*i.e.*, networking) and legal aspects.

Resolves:

- 1) to facilitate a strong and effective standards collaboration on NID;
- 2) to encourage Participating Standards Organizations (PSOs) and other standards bodies to develop globally compatible NID standards, including radio requirements, identity requirements, network capabilities, protocols, applications/services software platform architecture, and Automatic Identification Data Capture (AIDC) type network interfaces;
- 3) to promote the development of Recommendations or Reports for globally compatible standards related to NID applications;
- 4) to consider both radio issues and telecommunications issues for NID/AIDC standardization;
- 5) to encourage the ITU-T, PSOs, other standards bodies and fora to cooperate in order to develop harmonized, globally-compatible, NID-related standards and for PSOs, other standards bodies, and fora to designate representatives to ITU-T's "Joint Coordination Activity on Network Aspects of Identification Systems"; and
- 6) to encourage the ITU-T, PSOs, other relevant standards bodies and fora/consortia to collaborate in order to enable a globally interoperable ID system considering all possible solutions such as OID (Object Identifier).

RESOLUTION GSC-13/04: (Opening) Identity Management (Revised)
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The 13th Global Standards Collaboration meeting (Boston, USA, July 2008)

Recognizing:

- a) the importance of Identity Management (IDM) to practically all forms of social and economic activity, as well as the technical development and deployment of all radiocommunication and telecommunication services for diverse entities (persons, organizations/providers, and objects), including:
 - 1) authentication and credentials;
 - 2)

Resolves:

- 1) to request the ITU, with the assistance of Participating Standards Organizations (PSOs), to develop a comprehensive inventory of national, regional and international initiatives and activities in the area of Identity Management;
- 2) to encourage the ITU to explore the possibility of global harmonized Identity schema, including the development of an internationally recognized definition of IdM based on the ITU-T consensus model, taking into account important work undertaken by other international organizations including ISO/IEC JTC 1/SC 27;
- 3) to encourage PSOs and Observer Organizations of the GSC to evaluate and enhance existing and evolving new standards, Recommendations, and administrative practices relating to Identity Management that promote trusted discovery and interoperability of identity resources; and
- 4) to encourage PSOs and Observer Organizations of the GSC to participate in global, regional, and national Identity Management collaborative activities, and to adopt common standards and administrative practices that enhance global Identity Management interoperability.

RESOLUTION GSC-13/05: (Opening) Healthcare ICT Standards (Revised)

The 13th Global Standards Collaboration meeting (Boston, USA, July 2008)

Recognizing:

- a) that the healthcare industry represents a large fraction of Gross Domestic Product (GDP) in the countries represented by the GSC Participating Standards Organizations (PSOs);
- b) that healthcare expenditures will expand significantly as many countries experience an ageing population in the future;
- c) that healthcare applications and ICT (Information and Communications Technology) networks supporting them are already extensive, but far from fully optimized and integrated;
- d) that the provision, cost, quality, and delivery of healthcare services would benefit from the use of ICT and the development of appropriate standards to support them; and
- e) that developing countries can potentially accelerate the delivery of healthcare services through the deployment of standards-based information and communications technologies.

Considering:

- a) that many SDOs that are well known to GSC are active in healthcare ICT standards development (e.g., IEEE 1073 (Point of Care Medical Device Communication Standards), ISO TC 215 (Health informatics), IEC TC 62 (Electrical equipment in medical practice), CEN TC 251 (European Standardization of Health Informatics), ITU-T SG 16 (Multimedia services, systems and terminals), ETSI (EP eHEALTH));
- b) that many other healthcare SDOs less well known to GSC are also actively developing healthcare ICT standards (e.g., Health Level 7 (HL7), Integrating the Healthcare Experience, Clinical Data Interchange Standards Consortium, Digital Imaging and Communications in Medicine, ASTM International, Healthcare Information and Management Systems Society, American Dental Association, and Clinical Laboratory Standards Institute);
- c) that the ANSI-sponsored Healthcare Information Technology Standards Panel (ANSI HITSP) is active in coordinating healthcare ICT standards;
- d) that in May 2007, TIA created a new Engineering Committee, TR-49 and also that in December 2007, TTA created a new Project Group u-Health PG, for Healthcare ICT;
- e) that on March 6, 2007, the European Commission adopted Mandate M/403 in the field of ICT applied to eHealth and ETSI has created an ETSI Project eHEALTH;
- f) that CEN TC 251, HL7, and ISO TC 215, have taken an important step towards harmonization of their standards development by signing an agreement to further advance shared plans to coordinate and collaborate in delivering global standards that enable interoperable capabilities in the healthcare domain; and
- g) that WHO, ISO, IEC, and ITU have a platform to promote stronger coordination amongst the key players in all technical areas of e-health standardization (e-health Standardization Coordination Group).

Resolves:

- 1) that the Participating Standards Organizations of GSC should continue to bring a spirit of collaboration and mutual support to healthcare ICT standards development among themselves and other SDOs involved in such work.

RESOLUTION GSC-13/06: (Opening) IPTV Standards (Reaffirmed)
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The 13th Global Standards Collaboration meeting (Boston, USA, July 2008)

Recognizing:

- a) that IPTV has been deployed or is to be deployed in many regions and countries represented by the GSC Participating Standards Organizations;
- b) that IPTV offers the promise of new innovative video entertainment experiences to the public; and
- c) that the integration of IPTV video services and telecommunications services will offer benefits with enhanced value to the public.

Considering:

- a) that many GSC Participating Standards Organizations and ITU-T have begun work in the area of IPTV;
- b) that there has been successful collaboration among many GSC Participating Standards Organizations and ITU-T; and
- c) that the IPTV vision includes the delivery of multimedia services across a large variety of delivery modes, including wireline, fiber, fixed wireless, and mobile wireless.

Resolves:

- 1) that the Participating Standards Organizations of GSC:
 - continue to support IPTV standardization as a High Interest Subject;
 - continue to bring a spirit of collaboration and mutual support to the development of IPTV standards; and
 - work to identify and present areas of standardization that relate IPTV with other High Interest Subjects, such as NGN (including QoS and Security), Home Networking, etc.

RESOLUTION GSC-13/07: (Opening) IP over Broadband Accesses in support of convergence (Reaffirmed)

The 13th Global Standards Collaboration meeting (Boston, USA, July 2008)

Recognizing:

- a) that standardization related to systems providing IP connectivity over broadband accesses in fixed, mobile and wireless environments is mainly taking place in various organizations;
- b) that rapid advances are being made to provide IP connectivity over various broadband accesses (e.g. fixed, mobile, wireless and satellite) to the end user;
- c) that benefits from combination of various different broadband access technology extending geographical coverage and supporting migration of access networks;
- d) the emergence of interoperability/interworking requirements supporting voice and multimedia services over different broadband accesses;
- e) that importance of migration from circuit-switched to IP based supporting convergence environments like NGN;
- f) the emergence of using Ethernet as an important part of broadband access including home and enterprise domains;
- g) that high demand of service continuity between access networks, including consideration for consistent provision of voice, video, data and multimedia services across diverse access networks and core network domains;
- h) that IP over broadband accesses to an IP-based core infrastructure is destined to be the key to convergence; and
- i) that convergence should respond to and meet user expectations for wireline - wireless handover, call continuity, enterprise, home networking, IPTV, etc. provided that regulations allow such capabilities.

Considering:

- a) that Standards Development Organizations (SDOs) and other standards bodies have existing standards relating to IP over broadband accesses;
- b) that the ITU-T is developing NGN and IPTV related Recommendations using IP connectivity and managed broadband capabilities; and
- c) that NGN and IPTV have a crucial role to facilitate convergences such as Fixed-Mobile convergence and Telecom-Broadcasting convergence.

Resolves:

- 1) to facilitate a strong and effective global standards collaboration on providing IP connectivity over various broadband accesses; and
- 2) to encourage ITU, Participating Standards Organizations (PSOs), and other standards bodies to cooperate to support services (in terms of supporting QoS, Security, Mobility, Multicast and etc) using IP over broadband accesses.

RESOLUTION GSC-13/08: (Opening) ICT and the Environment (New)

The 13th Global Standards Collaboration meeting (Boston, 2008)

Recognizing:

- a) that the impact of Information and Communications Technologies (ICTs) on the environment is far-reaching, with both positive and negative effects;
- b) that among the positive impacts of ICTs are their use in improving environmental monitoring, reducing energy consumption and alleviating air pollution; however, included among the negative effects, related to the ongoing growth of the Internet and rapidly increasing rates of digital adoption, are the creation, deployment and proper disposal of ICTs;
- c) that key environmental challenges facing society include energy consumption and measures to enhance efficiency, recycling harmonization, as well as climate change; and
- d) that climate change is a concern for all of humanity and requires efforts on the part of all sectors of society, including the ICT sector,

Considering:

- a) that in Kyoto, in December 1997, the world took concrete steps to mitigate global warming with an international agreement to limit and reduce greenhouse gas(GHG) emissions;
- b) that the United Nations Intergovernmental Panel on Climate Change (IPCC) estimated GHG emission had risen by more than 70% since 1970; and this is having a global effect in warming the planet, causing changing weather patterns, rising sea-levels, desertification, shrinking ice cover and other worrying long-term effects. It also foresees a further rise in average global temperatures of between 1.4 and 5.8° Centigrade by 2100;
- c) that the ITU Symposia on ICTs and Climate Change were held in Kyoto, Japan, 15-16 April 2008, and in London on 17-18 June, 2008;
- d) that TSAG of ITU-T, in July 2008, approved the establishment of Focus Group to deal with ICTs and Climate Change, with broad regional representation among its management team, open also to non-members, and thus facilitating inputs from the regional SDOs;
- e) that establishment of WTSA2008 Resolution on the ICT and Climate Change is anticipated.
- f) that the use of ICTs as a key component of energy-efficient standardization work methods could include the reduction of emissions through paperless meetings, virtual conferencing and tele-working, which in turn would be beneficial in terms of reducing the need to travel;
- g) that ICTs play a vital role in monitoring and addressing climate change by exploiting the experiences of basic science which has helped bring the issue of global warming into the public domain and to raise awareness of future challenges;
- h) that ICTs can be one of major technologies mitigating climate change including reduction of GHG emissions through, for example, the introduction and development of energy efficient devices, applications and networks, as well as their environmentally sound disposal;
- i) that the ICT sector contributes in the range of 2-4% to the production of global CO₂ emissions;
- j) that PSOs and ITU are requested to develop Standards/Recommendations which enable energy-saving systems and applications, since the energy-saving measures are imperative in the development of ICTs;

- k) that standardization of the methodologies for the analysis, evaluation and quantification of the GHG reductions that may be achieved through the use of ICTs are important;
- l) that active standardization works in ITU-T, ITU-R and PSOs include studies on RFID and electronic sensors, which can help reduce consumption of energies by, for example, switching on lights only when necessary, or by adjusting heating requirements in buildings, and enabling retailers to reduce the need for warehousing or outlets which consume energy and materials;
- m) that ITU-R, playing a vital role in the global management of the radio-frequency spectrum, and the national regulators will provide the necessary radio-frequency spectrum for climate monitoring, disaster prediction, detection and relief;
- n) that ITU-R and PSOs are concentrating their studies, not only on increasing service quality and the efficient use of the radio spectrum, but also on energy saving such as a reduction in the number of transmitters and of their transmitted power resulting from the transfer from analogue to digital techniques;
- o) that new digital television transmitters consume almost 1/10 the energy of existing analogue versions and require 1/4-1/6 of spectrum per TV program; and
- p) that studies on Intelligent Transport Systems (ITS) have shown that vehicle monitoring and control systems can be used to improve overall vehicle efficiencies and reduce energy consumption.

Resolves:

- 1) to encourage ongoing cooperation and collaboration among national, regional and international activities that relate to standardization in the field of ICT and the Environment, including issues relating to energy consumption and measures to enhance efficiency, recycling, as well as climate change;
- 2) to support “ICT and the Environment” as a High Interest Subject of GSC;
- 3) to encourage PSOs to share their views and experiences with all groups dealing with ICTs and climate change, e.g. the ITU-T Focus Group on ICTs and Climate Change, for the development of methodologies for the analysis, evaluation and quantification of GHG emissions from the ICT sector and the reductions that may be achieved through the use of ICTs in other sectors; and
- 4) to bring a spirit of collaboration and mutual support to the development of ICTs by taking the environmental aspects into consideration; and in particular addressing:
 - awareness of changing environment and impacts of ICTs
 - energy-saving definitions, reference models, gap analysis, measurement methods, quantification methods, and requirements in a harmonized way
 - development of ICT standardization that have a positive impact on the environment
 - electronic working methods and its tools
 - use of ICTs (e.g. USN, RFIDs etc.) for monitoring and measuring climate change.

RESOLUTION GSC-13/9: (Plenary) ICT Management and operations (New)

The 13th Global Standards Collaboration meeting (Boston, USA, July 2008)

Recognizing:

- a) that ICT has been used in many industry sectors;
- b) ICT management and operation has been deployed or is to be deployed in many regions and countries represented by the GSC Participating Standards Organizations;
- c) that the integration of ICT service management and operation and telecommunication management will offer benefits with enhanced value to the public; and
- d) that efficient and effective ICT management and operations are essential to the economically viable deployment and functioning of ICT.

Considering:

- a) that many GSC Participating Standards Organizations have begun work in the area of ICT service management; and
- b) that there has been successful collaboration among many GSC Participating Standards Organizations and ITU-T.

Resolves:

- 1) that the Participating Standards Organizations of GSC continue to support ICT service management and operation standardization as a High Interest Subject;
- 2) continue to bring a spirit of collaboration and mutual support to the development of ICT service management and operation standards;
- 3) work to identify and present areas of standardization that relate ICT management and operation with other High Interest Subjects, such as ICT and health, Home Networking, etc.; and
- 4) that the Participating Standards Organizations of GSC actively seek on going tactical coordination and collaboration of management and operations work programs (e.g. via the ITU-T JCA on Management).

RESOLUTION GSC-13/10: (GTSC) Next-Generation Networks (NGN) (Revised)

The 13th Global Standards Collaboration meeting (Boston, USA, July 2008)

Recognizing:

- a) that there is an agreed definition for the NGN concept developed by the ITU;¹
- b) that the NGN concept covers a range of applications including Public Switched Telephone Network/Integrated Services Digital Network (PSTN/ISDN) emulation, multimedia, video streaming and other services, based on standardized service building blocks;
- c) that all GSC Participating Standards Organizations (PSOs) are actively involved in the developing of NGN standards;
- d) that 3GPP and 3GPP2 have agreed to adopt a common “IP Multimedia Subsystem” (IMS)-based approach to implementing an NGN, that this approach is now being used in broadband fixed networks, including cable networks;
- e) that the scope of 3GPP has recently been expanded to encompass a “Common IMS” to address the needs of the ICT community beyond GSM/UTRAN, including wireline, cable, and fixed-wireless networks;
- f) that a call server approach has been included in the architecture for NGN;
- g) that technologies supporting services such as messaging, Voice over IP (VoIP) and multimedia are now being deployed and are in service in a number of areas;
- h) that users of NGNs and interconnected networks will demand adequate Quality of Service and security;
- i) that there are different stages of network evolution and therefore interconnection to/and between NGN environments is becoming an important issue to the deployment of NGN and the migration from legacy networks to NGN; and
- j) that the industry requires technical integrity and coherence among interrelated specifications.

Considering:

- a) that NGN must interwork with and allow a migration path from existing networks and services;
- b) technical standards for NGN interconnection of services must become available in a timely and co-ordinated manner to allow global operation of NGN services;
- c) that offering end-to-end multimedia services, including mobility support and IPTV, requires interconnection across different NGN implementations capable of supporting satisfactory security and end-to-end Quality of Service (QoS) and Quality of Experience (QoE);
- d) that NGN has a significant role as an infrastructure supporting interworking among different networks (mobile and fixed) and multimedia services including convergence serviced, on the basis of a minimum number of globally agreed protocol profiles;

¹ See ITU-T [Y.2001](#) and Y.2011-

- e) that there is increasing demand for converged services with ubiquitous capabilities allowing users to obtain access to their services

- 3) to focus on Service Enablers and interoperability at the application level, to support a broad range of applications that utilize underlying network capabilities;
- 4) to support that the 3GPP Organizational Partners have encouraged the wide community of their members to contribute to the common set of Technical Specifications and Technical Reports for “Common IMS” within 3GPP and to avoid duplication of work; and
- 5) to support the ITU-T standardization activity to achieve a coherent set of Recommendations ; and within NGN, with specific reference to the Common IMS, to coordinate with the release packaging of relevant standards organizations.

RESOLUTION GSC-13/11: (GTSC) Cybersecurity (Revised)

The 13th Global Standards Collaboration meeting (Boston, USA, July 2008)

Recognizing:

- a) the crucial importance of the information and communications infrastructure to practically all forms of social and economic activity, and the need for everyone to assume their role in contributing to its security on an ongoing basis;
- b) that the legacy Public Switched Telephone Network (PSTN) has a level of inherent security properties because of its hierarchical structure and built-in management systems;
- c) that IP networks provide reduced separation between users and network components if adequate care is not taken in the security design;
- d) that the converged legacy networks and IP networks are therefore potentially more vulnerable to intrusion if adequate care is not taken to integrate security requirements into the planning and design as early as possible;
- e) that the type and number of cyber attacks in terms of worms, viruses, malicious intrusions and thrill-seeker intrusions is on the increase;
- f) that ITU-T Recommendation X.1205 “*Overview of Cybersecurity*” provides a definition, description of technologies, and network protection principles;
- g) that ITU-T Recommendation X.805 provides a systematic framework for identifying security vulnerabilities that together with many new security-related deliverables from the ITU and the Participating Standards Organizations (PSOs) can assist risk assessment and the development of mechanisms to mitigate the risks;
- h) that the ITU-T and ISO/IEC JTC 1 already has a significant body of published materials and ongoing work that is directly relevant to this topic, that needs to be taken into account and integrated;
- i) that the ITU-D is developing a report “*Best Practices for developing a national approach to cybersecurity: A management framework for organizing national cybersecurity efforts*”¹

Resolves:

To encourage Participating Standards Organizations (PSOs) and Observer Organizations of the Global Standards Collaboration (GSC) on an ongoing basis to:

- 1) evaluate existing and evolving new standards and Recommendations, and especially signaling and communications protocol standards and Recommendations with respect to their robustness of design and potential for exploitation by malicious parties to interfere destructively with their deployment in the global information and communications infrastructure;
- 2) raise awareness within their areas of operation and influence of the need to protect information and communications systems against the threat of cyber attack;
- 3) consider using ITU-T Recommendations, including X.805 and X.1205, ISO/IEC products/standards and other relevant deliverables from the ITU and PSOs as a framework for assessing networks and protocols for security vulnerabilities and to share experiences;
- 4) work with the ITU and others to develop standards or guidelines to protect against botnet attacks and facilitate tracing the source of an attack;
- 5) promote global, consistent, and interoperable processes for sharing incident-response related information;
- 6) supply updated information on their security standards work for inclusion in the “*ICT Security Standards Roadmap*”², a database of security standards hosted by the ITU-T, and
- 7) request ITU, in building upon the information base associated with the “*ICT Security Standards Roadmap*” and the ITU-D efforts on cybersecurity, to prepare, with PSO assistance, an inventory of national, regional and international initiatives and activities to promote, to the maximum extent possible, the worldwide harmonization of strategies and approaches in this critically important area.

² <http://www.itu.int/ITU-T/studygroups/com17/ict/index.html>

RESOLUTION GSC-13/12: (GTSC) Home Networking (Revised)

The 13th Global Standards Collaboration meeting (Boston, USA, July 2008)

Recognizing:

- a) that due to the evolution of digital technology (*e.g.*, media coding, Internet), home networks have evolved towards a complex set of devices supporting services and applications in the business, entertainment and security/control areas;
- b) that in the business area, changes in corporate culture, business efficiency measures, and environmental concerns have resulted in calls for less travel to and from work and hence many employers have implemented teleworking initiatives;
- c) that in the area of entertainment, new trends in interactive multimedia applications need communication between various devices in the home as well as with equipment located in the network;
- d) that in the area of security, surveillance, control and command, functionalities of the systems can be improved by the introduction of digital video/image technologies and interconnection with network based services;
- e) that home networks are connected to backbone networks through different access technologies, both wire and wireless;
- f) that QoS expectations/requirements from users apply to a wider set of services, and are technologies/networks independent; and
- g) that in the areas described above, in order to be make maximum use of their capabilities, there is a growing need to standardize the interconnection of home networking devices, including portable devices like personal computers, mobile phone, PDAs, etc.

Considering:

- a) that various standards bodies are developing standards for Home Networking;
- b) that well-accepted standards have the potential to increase product availability and to support a diverse range of applications;
- c) that the ITU-T has established a joint coordination activity on Home Networking (JCA-HN) which enables them to work with the relevant outside bodies; and
- d) that relevant standardization activities on Home Networking in ETSI/TISPAN, ATIS, CCSA, ETSI, TTA and TTC were addressed in addition to the activity report of the ITU-T JCA-HN in GSC-13 meeting.

Resolves:

- 1) to facilitate a strong and effective standards collaboration on Home Networking standardization; and
- 2) to encourage ITU-T, Participating Standards Organizations (PSOs), and other standards bodies to cooperate to develop harmonized Home Networking standards.

<p>RESOLUTION GSC-13/13: (GRSC) Global UWB Standardization, including UWB Radar and Sensor/Imaging Applications (Reaffirmed)</p>

The 13th Global Standards Collaboration meeting (Boston, USA, July 2008)

Recognizing:

- a) that UWB services could assist in the social and economic development on a Global basis using Personal Area Networks;
- b) that UWB services can help to provide local, very high speed, broadband links for use in the personal space including government, education, and individuals in the global community to develop the delivery of combined audio/visual services alongside normal Wide Area Networks;
- c) that there is increasing demand for personal broadband services on a Global basis providing full cross/border/regional mobility and compatibility for end users;
- d) that there is increasing demand for UWB in the areas of radar, imaging, sensor and location tracking applications to meet general public, global automotive and public safety needs;
- e) that well-accepted standards have the potential to increase product availability and to support a diverse range of applications which can benefit the delivery of broadband multimedia services in the personal space; and
- f) that the telecommunication requirements of developed and developing countries are similar but the implementation challenges may be vastly different.

Considering:

- a) that various countries and regions are establishing UWB deployment programs, including real-time multimedia applications, in recognition that UWB has the potential to enhance the quality of life of the general public, (e.g., strengthening economy, improving health care, access to services to

Resolves:

- 1) to facilitate a strong and effective global radio standards collaboration on UWB standardization in a technology neutral environment;
- 2) to encourage PSOs to take into account, in the development of UWB standards, and regulatory procedures for placing UWB solutions on the Global markets; and
- 3) to encourage standards development in UWB hybrid fixed and mobile broadband wireless personal access, real-time multimedia services, radar and sensor/imaging type applications.

RESOLUTION GSC-13/14: (GRSC) GSC ITS Task Force (Revised)
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The 13th Global Standards Collaboration meeting (Boston, USA, July 2008)

Recognizing:

- a) resolution GSC-9/6 (GRSC): Supporting Automotive Crash Notification (ACN) by Public Wireless Communications Networks;
- b) resolution GSC-10/07: (GRSC) Supporting Automotive Crash Notification (ACN) by Public Wireless Communications Networks;
- c) resolution GSC-11/08: (GRSC) Automotive Crash Notification (Revised);
- d) resolution GSC-11/09: (GRSC) Support for Vehicle Safety Messaging; and
- e) resolution GSC-12/10 (GRSC) GSC ITS Task Force.

Considering:

- a) that the lifetime of vehicles exceeds that of any particular generation of public wireless networks;
- b) that vehicle manufacturers in each part of the world design and manufacturer vehicles for others parts of the world;
- c) that there are very large vehicle populations;
- d) that international harmonisation of standards for communications for vehicle safety is desirable in advance of deployment of vehicles using such communications;
- e) that many governments have made reducing vehicle deaths and injuries a priority;
- f) that vehicle crashes can be reduced by communicating information about dangerous conditions to vehicles, or by communicating directly with vehicles to provide safety related services;
- g) that several key issues to enable such services require international coordination and coordination between and among Participating Standards Organizations (PSOs);
- h) that ITU-T APSC TELEMov is chartered as a cooperation group on all aspects of standardization related to telecommunications within and for motor vehicles and has been hosting the GSC ITS Task Force since GSC-11 (see: <http://www.itu.int/ITU-T/special-projects/apsc/special-actions.html>); and
- i) that the GSC ITS Task Force has delivered a set of recommendations for standards collaborations activities in support of automotive crash notification (ACN), vehicle safety communications (VSC), software reconfigurable radios (SRR) and location referencing (gsc12_open_26: GSC ITS TF Report to GSC-12 v1.2 2007-06-18.doc).

Resolves:

- 1) to endorse the continuation of the GSC ITS Task Force hosted by ITU-T APSC TELEMov and requests the Task Force to:
 - a) use the recommendations in the report as the basis for ongoing work;
 - b) serve as a coordination point for global standardization activities and further the recommendations noted in the report; and in particular to recommend and facilitate specific mechanisms for this coordination;

- c) make recommendations to GSC on related spectrum issues and technologies for VSC, including an approach for development of specific ITS protocols to support VSC at 700 MHz;
 - d) recommend the scope for specific standards needed to enable Software Reconfigurable Radio (SRR) for automotive applications at the next GSC meeting; and
 - e) report on progress in each of these areas at the next GSC meeting; and
- 2) to request the Participating Standards Organisations to review the GSC ITS Task Force report and their national/regional activities in each of the topic areas and report on progress.

<p>RESOLUTION GSC-13/15: (GRSC) Software Defined Radios and Cognitive Radio Systems (Revised)</p>
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The 13th Global Standards Collaboration meeting (Boston, USA, July 2008)

Recognizing:

- a) that Software Defined Radios (SDRs) may offer design and operational versatility and flexibility in mobile radio systems;
- b) that for in-vehicle use, SDRs may help in reducing the mismatch between the lifecycles of vehicles and communications technology;
- c) that SDRs have been addressed in a variety of organizations often by people interested in different aspects and for different purposes;
- d) that the terms used in association with SDRs and with Cognitive Radio Systems currently vary significantly;
- e) that some of the features that many would currently associate with SDRs do not, in fact, require SDR technology to be implemented or achieved (e.g., some kind of flexibility may be obtained by multimode equipment);
- f) that the use of SDR or Cognitive Radio Systems may have implications on the radio parameters, security, and/or reliability of operation;
- g) that it would be useful if SDOs and regulatory bodies adopted a common set of terms covering the various aspects relating to SDRs (e.g., focusing on various layers, physical, logical, etc.); and
- h) the importance of cognitive radio technology and the need for a common understanding of what is a cognitive radio system.

Considering:

- a) [Report ITU-R M.2117](#) “Software defined radio in the land mobile, amateur and amateur satellite services”;
- b) [Question ITU-R 230-1/8](#) “Software defined radios”;
- c) [Question ITU-R 241/8](#) “Cognitive radio systems in the mobile service”; and
- d) WRC-11 Agenda Item 1.19 “*to consider regulatory measures and their relevance, in order to enable the introduction of software-defined radio and cognitive radio systems*”.

Resolves:

- 1) To encourage Participating Standards Organizations (PSOs), and to invite other standards bodies and regulatory bodies, to cooperate in order to adopt common terminology definitions and common approaches covering the various aspects relating to SDRs and cognitive radio technology.

GSC13-CL-23 is an unallocated file.

GSC-13/16 is an unallocated Resolution.

<p>RESOLUTION GSC-13/17: (GRSC) Mobile Multimedia Broadcast and Multicast (Reaffirmed)</p>

The 13th Global Standards Collaboration meeting (Boston, USA, July 2008)

Recognizing:

- a) that digital mobile networks are and will continue to evolve to support multimedia systems and applications;
- b) that mobile users anticipate receiving multimedia entertainment -- including streaming real-time and downloaded or file-based television programs, sporting event coverage, movie videos, music programming and even home videos -- wherever they are;
- c) that mobile users anticipate receiving multimedia news and information -- including real-time streaming and downloaded or file-based TV news programs, urgent news and information and business specific or personalized multimedia information -- wherever they are; and
- d) that in the areas described above, in order to accelerate the market adoption, there is a continuing need to standardize all aspects of mobile multimedia systems and applications, including the terrestrial mobile multimedia multicast air interface.

Considering:

- a) that various standards bodies are developing standards and specifications for terrestrial mobile multimedia broadcast and multicast systems and applications; and
- b) that well-accepted standards accelerate the services and applications development of mobile multimedia and support accelerated market adoption.

Resolves:

- 1) to encourage Participating Standards Organizations (PSOs) and other standards bodies to promote the development of harmonized systems and application standards for Mobile Multimedia Broadcast and Multicast while recognizing the benefits and necessity of continued innovation in this emerging service category.

<p>Resolution GSC-13/18: (GRSC) Facilitating Liaison in Relation to Measurement Methodologies for Assessing Human Exposure to RF Energy (Reaffirmed)</p>

The 13th Global Standards Collaboration meeting (Boston, USA, July 2008)

Recognizing:

- a) that benefits would flow from increased liaison and cooperation between key national, regional and international organisations developing standards (including specifications, recommendations or guidelines) that specify measurement methodologies for assessing human exposure to radio frequency (RF) energy;
- b) that the International Electrotechnical Commission (IEC) and Institute of Electrical and Electronics Engineers (IEEE) are two pre-eminent international bodies in establishing measurement methodologies for assessing human exposure to RF energy which already cooperate with many Participating Standards Organizations (PSOs);
- c) that ITU-T Recommendation K.52, “Guidance on complying with limits for human exposure to electromagnetic fields”, addresses measurement methodologies for assessment of RF exposure and that work on this matter is ongoing in ITU-T;
- d) that a number of countries use measurement standards for assessing human exposure to RF energy which are already derivatives or combinations of the output of IEC and/or IEEE;
- e) that the IEEE and the International Commission on Non-Ionizing Radiation Protection (ICNIRP) are two pre-eminent international bodies in establishing recommended limits/safety criteria for human exposure to RF energy;
- f) that national (or regional) regulatory needs may be influenced by factors other than product market access which could dictate different time schedules than those of international standards cycles; and
- g) that national regulatory bodies are called to interpret regulations and extend applicability beyond that specified in standards.

Noting:

- a) that Resolution RAST 10/3 (Sydney, Australia) recommended invitation of representatives of IEEE Standards Committee 34, IEC Technical Committee 106 “Methods for the Assessment of the Electric, Magnetic and Electromagnetic Fields Associated with Human Exposure”, the European Committee for Electrotechnical Standardization (CENELEC) Technical Committee 106x “Electromagnetic fields in the human environment” and ICNIRP to RAST.

Concludes:

- a) that a significant need exists for the timely exchange of information concerning measurement methodologies for assessing human exposure to RF energy among legislative, regulatory, industry, and standards bodies and forums; and
- b) that harmonization of measurement methodologies for assessing human exposure to RF energy is highly desirable, particularly in light of the rapid development of new wireless technologies.

Resolves:

- 1) to encourage the continuing distinction of activities related to measurement methodologies for assessing human exposure to RF energy, from those related to exposure criteria;
- 2) to encourage PSOs and regulators to aim for global harmonization of their accepted measurement methodologies for assessing human exposure to RF energy;
- 3) to encourage active participation by representatives of PSOs and regulators in the work of the above-mentioned international measurement standardization organizations (IEC, IEEE and ITU);
- 4) to prepare a list of Standards, information and contacts which will enable GRSC PSOs to be aware of work being undertaken in other organisations; and
- 5) to encourage PSOs to contribute information and to provide access to documents in this database.(http://portal.etsi.org/docbox/Workshop/GSC/GRSC_EMF_safety/)

NOTE: Brian Copsey (ETSI) (BC@copsey-comms.com) was requested to act as contact point for the collection of the above information.

RESOLUTION GSC-13/19 (GRSC): Facilitating Liaison in Relation to Measurement Methodologies, associated Measurement Uncertainty and Calibration (Reaffirmed)

The 13th Global Standards Collaboration meeting (Boston, USA, July 2008)

Recognizing:

- a) that the use of the radio frequency spectrum is continually increasing and that the upper radio frequency for compliance assessment has risen to at least 300 GHz;
- b) that benefits would flow from increased liaison and cooperation between key national, regional and international organisations developing standards (including specifications, recommendations or guidelines) that specify measurement methodologies measurement uncertainties and calibration of test equipment for assessing radio frequency (RF) energy;
- c) that ITU-R, the International Electrotechnical Commission (IEC), the Institute of Electrical and Electronics Engineers (IEEE) are the pre-eminent international bodies in establishing measurement methodologies for assessing RF energy with active co-operation from many Participating Standards Organizations (PSOs);
- d) that a number of countries use measurement standards for assessing RF energy which are already derivatives or combinations of the output of these International and Regional bodies;
- e) that national (or regional) regulatory needs may be influenced by factors other than product market access which could dictate different time schedules than those of international standards cycles;
- f) that national and regional regulatory bodies are called to interpret regulations and extend applicability beyond that specified in standards;
- g) that measurement uncertainties are one of the key elements in making quality assessment of RF energy; and
- h) that traceable calibration of test equipment is difficult to find above 40 GHz.

Concludes:

- a) that a significant need exists for the timely exchange of information concerning measurement methodologies, measurement uncertainties and calibration of test equipment for assessing RF energy among legislative, regulatory, industry, and standards bodies and forums; and
- b) that harmonization of measurement methodologies measurement uncertainties and calibration of test equipment for assessing RF energy is highly desirable, particularly in light of the rapid development of new wireless technologies.

Resolves:

- 1) to encourage the continuing distinction of activities related to measurement methodologies measurement uncertainties and calibration of test equipment for assessing RF energy, from those related to EMF exposure criteria;

- 2) to encourage PSOs and regulators to aim for global harmonization of their accepted measurement methodologies measurement uncertainties and calibration of test equipment for assessing RF energy;
- 3) to encourage active participation by representatives of PSOs and regulators in the work of the above-mentioned international measurement standardization organizations (IEC, IEEE and ITU);
- 4) to prepare a list of Standards, information and contacts which will enable GRSC PSOs to be aware of work being undertaken in other organisations; and
- 5) to encourage PSOs to contribute information and to provide access to documents in this database.

NOTE: Alan Dearlove (ETSI) (Alan@copsey-comms.com) was requested to act as contact point for the collection of the above information.

<p>Resolution GSC-13/20: (GRSC): Radio Microphones and Cordless Audio Standardization (Revised)</p>
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The 13th Global Standards Collaboration meeting (Boston, USA, July 2008)

Recognizing:

- a) that Radio microphones and Cordless Audio; are transported worldwide for both professional and consumer use;
- b) that a single standard approach will help ensure a product which can both satisfy the spectrum protection and planning issues and assist manufacturers in their production; and
- c) that there is increasing demand for these devices on a personal and commercial basis on a Global basis providing full cross/border/regional mobility and compatibility for end users.

Considering:

- a) that various countries and regions have established differing standards and test methods for these devices.

Resolves:

- 1) to facilitate a strong and effective global radio standards collaboration on Radio Microphones and cordless Audio standardization in a technology neutral environment;
- 2) that given the World wide appeal and use of band 2 micro transmitters, the GRSC Task Force should continue to examine existing standards and limits and update the Task Force documents for GRSC-7;
- 3) that the GRSC Task Force should seek members views and comments on band sharing with other services now that the broadcast bands have become congested with simulcasting of analogue and digital transmissions; and
- 4) to continue to encourage members to provide information to update the document box.

NOTE: That Brian Copsey (bc@copsey-comms.com) will continue to be the convenor of these activities.

RESOLUTION GSC-13/21: (GRSC) Broadband Services in Rural and Remote Areas (Revised)

The 13th Global Standards Collaboration meeting (Boston, USA, July 2008)

Recognizing:

- a) that broadband services could assist in the social and economic development in rural and remote communities by attracting and retaining businesses and professionals;
- b) that broadband services can help link schools, local government and individuals to the larger world and help rural and remote communities to develop and market themselves;
- c) that there is increasing demand for broadband services in rural and remote communities;
- d) that there are challenges in delivering broadband services in areas with low subscriber densities and in some cases a lack of existing infrastructure;
- e) that standardization of wireless access, RLANs and broadband wireless access (BWA) systems is currently taking place in Participating Standards Organizations (PSOs);
- f) that well-accepted standards have the potential to increase product availability and to support a diverse range of applications which can benefit the delivery of broadband services in rural and remote communities;
- g) that through the emergence and evolution of technology, there are increasing opportunities to develop broadband access systems employing both wireline and wireless technologies;
- h) that evolving convergence of certain mobile and fixed service technologies and applications may help in the development of telecommunications services in rural and remote communities;
- i) that telecommunications needs may vary considerably between communities in rural and remote areas;
- j) that the telecommunication requirements of developed and developing countries are similar but the implementation challenges may be vastly different;
- k) that there has been limited deployment to date of broadband services in rural and remote communities because of higher costs;
- l) that due to the sparseness of users in rural and remote areas, there are advantages in utilizing frequency range below 1GHz;
- m) that various countries have or will establish transition plans to replace over-the-air analogue television transmission with digital television transmission below 1 GHz;
- n) that the transition from analogue to digital TV is expected to free up spectrum to accommodate other communication services;
- o) that with analogue TV, taboo¹ channels rendered many channels unusable due to interference, however, with digital TV, it is expected that fewer channels would be impacted; and
- p) that digital TV deployment in many countries will improve opportunities for licensing of white space spectrum, particularly in rural and remote areas.

¹ With over-the-air analogue TV, certain adjacent channels are not usable due to interference. For example, if channel n is the channel in which an analogue TV signal is delivered, then channels n +/- 1, 2, 3, 4, 7, 8; and n - 14 are potentially affected due to interference from channel n, and in many cases unusable for other transmissions.

Considering:

- a) that various countries and regions are establishing broadband deployment programs, including wireless broadband, in recognition that broadband has the potential to enhance the quality of life in rural and remote communities (*e.g.*, strengthening economy, improving health care, creating new learning opportunities);² and
- b) that the World Summit on Information Society (Geneva, December 2003) adopted a plan of action calling on countries to develop and strengthen national, regional and international broadband network infrastructure, including delivery by satellite and other systems, to help in providing the capacity to match the needs of countries and their citizens and for the delivery of new ICT (Information and Communication Technology)-based services.

Resolves:

- 1) to facilitate a strong and effective global radio standards collaboration on BWA standardization;
- 2) to encourage PSOs and other standards bodies to develop harmonized broadband access standards to support delivery to rural and remote communities that address their unique geographical, operational and technical challenges;
- 3) to encourage PSOs to take into account, in the development of broadband standards, the need for cost-effective solutions;
- 4) to encourage PSOs to develop innovative solutions that would support the use of lower frequency bands to achieve greater coverage and reliability for the delivery of broadband services in rural areas;
- 5) to encourage PSOs to take into account in the development of broadband standards, evolving technology and application trends that could support deployment of broadband systems in rural and remote areas. (*e.g.*, hybrid wireline and wireless architectures; convergence of certain mobile and fixed service technologies and applications); and
- 6) to encourage PSOs to take into account the transition of analogue to digital TV below 1GHz in the development of wireless broadband standards suitable for use in remote and rural areas.

² For example: Asia (<http://www.asia-bb.net/en/>), Australia (<http://www2.dcita.gov.au/ie/framework/broadband#strategy> and <http://www.wa.gov.au/tiac/broadband/>), Canada (<http://broadband.gc.ca>), Europe (http://europa.eu.int/information_society/eeurope/2005/index_en.htm), United States (<http://www.fcc.gov/broadband/> and <http://wireless.fcc.gov/outreach/ruralinitiative/>).

<p>RESOLUTION GSC-13/22: (IPRWG) Intellectual Property Rights Policies (Revised)</p>

The 13th Global Standards Collaboration meeting (Boston, USA, July 2008)

Recognizing:

- a) That effective standardization utilizes intellectual property rights policies that encourage participation, respect the contribution of valuable intellectual property, and result in standards that are technically proficient and widely accepted;
- b) that such intellectual property rights policies typically provide incentives to interoperate, innovate and compete by:
 - respecting intellectual property,
 - balancing the interests of all stakeholders so that the outcomes are representative, inclusive and more broadly supported,
 - being open and transparent for all to review and understand,
 - promoting the use of the best technical solutions given commercial requirements,
 - being consistent with internationally accepted norms such as widely accepted RAND/FRAND-based intellectual property rights policies,
 - recognizing the right of intellectual property right holders to receive reasonable and adequate compensation for the shared use of their technology;
- c) that such effective intellectual property rights policies
 - (i) encourage participation in standardization and the contribution of valuable technology,
 - (ii) stimulate the sharing and adoption of technological advances that otherwise would be outside the relevant IPR policy,
 - (iii) stimulate innovation, both in terms of the interoperability technology and also additional, non-standard features to accommodate customer needs and consumer choice, and
 - (iv) solve interoperability challenges in effective ways that are focused and well-defined while preventing splintering (which can undermine the primary interoperability objective);
- d) that such effective intellectual property rights policies do not discourage either collaboration or widespread acceptance because they do not (1) mandate corporate patent searches, (2) impose unreasonable disclosure obligations, (3) seek to impose inflexible licensing commitments on intellectual property holders or (4) permit any group discussion of licensing terms during the standards development organization's meetings or activities;
- e) that the intellectual property rights policies of the majority of standards development organizations include provisions for standards users to license standards-essential intellectual property under RAND/FRAND compensatory or compensation-free (e.g. royalty free) terms and conditions;
- f) that there is a trend in some user communities and some standards development organizations in support of patent policies with enforced compensation-free provisions for standards implementers;

- g) that there are some standards development organizations whose intellectual property rights policies are exclusive to members and discriminatory to non-members;
- h) that not all intellectual property holders are members/participants of standards development organizations; and
- i) that some intellectual property policies seek to have overbroad disclosure obligations that discourage participation because they implicitly require companies to engage in patent searches in order to avoid severe penalties for inadvertently failing to make a disclosure.

Considering:

- a) that protection of intellectual property rights is necessary to ensure that the best and most innovative technology is made available for inclusion in standards and that such innovation should be encouraged;
- b) that the commitment to license an essential intellectual property must extend to anyone who wishes to implement the standard and be under RAND/FRAND terms and conditions; and
- c) that GSC has approved a Resolution on Open Standards.

Resolves:

- 1) that the Participating Standards Organizations of GSC:
 - strongly support the adoption of effective intellectual property policies that are transparent, widely accepted and encourage broad-based participation and the contribution of valuable technical solutions by respecting intellectual property rights, including the right of the intellectual property holder to receive reasonable and adequate compensation for the shared use of its technology;
 - strongly voice their opposition to policies that mandate compensation-free licensing provisions and licensing practices that discriminate between members and non-members; and
 - strongly voice their opposition to intellectual property policies (a) with overbroad patent disclosure obligations that explicitly or implicitly mandate corporate patent searches with the penalty of loss of patent enforcement rights in connection with the relevant standard or (b) permit any group discussion of licensing terms during the standards development organization's meetings or activities.

<p>RESOLUTION GSC-13/23: (IPR WG) Cooperation with Patent and Trademark Offices (Reaffirmed)</p>

The 13th Global Standards Collaboration meeting (Boston, USA, July 2008)

Recognizing that:

- a) patent laws around the world provide important incentives to innovate;
- b) there is a large amount of innovation in the ICT sectors that generates many patent applications and granted patents;
- c) high quality patents are truly innovative and do not reflect prior, pre-existing technologies;
- d) among other things, Patent and Trademark Offices consider whether a patent application seeks patent protection for technology that already exists and is “prior art”;
- e) standards development activities in the ICT sector usually involve the review of many technology contributions or the generation of new technical approaches;
- f) Patent and Trademark Offices would benefit from being able to review the technology submitted or reviewed at standards developing bodies in connection with those Offices’ assessments as to existence of “prior art” when reviewing patent applications; and
- g) standards bodies and their membership would benefit from the issuance of high quality patents and from the interaction with Patent and Trademark Offices.

Resolves:

- 1) that the Participating Standards Organizations of GSC are encouraged to cooperate with the relevant Patent and Trademark Offices to provide access to technical information for use by such Agencies that should help them improve the quality of patents being granted.

RESOLUTION GSC-13/24: (IPRWG) Open Standards (Reaffirmed)
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The 13th Global Standards Collaboration meeting (Boston, USA, July 2008)

Recognizing:

- a) that the issue of how to define “open standards” is gaining attention on a global scale. The reasons for this may differ regionally and are linked to a combination of factors including, but not limited to, policy considerations, legal implications, business strategies and the dynamics of the Information and Communication Technology (ICT) market; and
- b) that standards should:
 - facilitate interoperability;
 - support fair trade and fair competition;
 - increase user, consumer, and government confidence; and
 - stimulate innovation.

Considering:

- a) that the characteristics set forth above are achieved through the adoption of certain proven, widely-accepted principles.

Resolves:

- 1) that the Participating Standards Organizations (PSOs) define an “open standard” to include the following fundamental elements:
 - the standard is developed and/or approved, and maintained by a collaborative consensus-based process;
 - such process is transparent;
 - materially affected and interested parties are not excluded from such process;
 - the standard is subject to RAND/FRAND Intellectual Property Right (IPR) policies which do not mandate, but may permit, at the option of the IPR holder, licensing essential intellectual property without compensation; and
 - the standard is published and made available to the general public under reasonable terms (including for reasonable fee or for free).

<p>RESOLUTION GSC-13/25: (UWG) Personally Identifiable Information Protection (Reaffirmed)</p>

The 13th Global Standards Collaboration meeting (Boston, USA, July 2008)

Recognizing:

- a) that personally identifiable information is increasingly being collected, stored and communicated by various technical and non-technical means;
- b) that there are concerns with misuse and unauthorized access to such information; and
- c) that there are definitional, legal, and security problems in dealing with personally identifiable information.

Further recognizing:

- d) that there is a large body of work and expertise scattered throughout the global community including the standardization community, which addresses these issues at least in part; and

Noting also:

- e) that ISO COPOLCO (International Organisation for Standardisation Consumer Policy Committee), HIPPA (Health Insurance Portability and Accountability Act), OECD (Organisation for Economic Co-operation and Development), the European PRIME project (Privacy Identity Management for Europe), the APEC (Asia Pacific Economic Community) Privacy Framework activity and other initiatives are dealing with similar concerns.

Concludes:

- a) that standardization of terms and definitions, frameworks and procedures, are needed to ensure meaningful dialogue and consistency in addressing such concerns on a national, regional and global basis and that such standardization needs to be consolidated into a distinct area of study for consistency and effectiveness. Such a distinct area of study would facilitate user-driven participation.

Resolves:

- 1) to raise awareness of this situation by communicating this resolution to international standardisation bodies such as ISO/IEC JTC1 (International Organisation for Standardisation/International Electrotechnical Commission Joint Technical Committee 1) and the ITU (International Telecommunication Union) to consider what actions could be taken to address this important matter including the possibility of establishing a distinct committee or working group with an appropriate scope and terms of reference;
- 2) to support standardisation activities in personally identifiable information protection; and
- 3) GSC urges the PSOs to contribute to personally identifiable information protection.

<p>RESOLUTION GSC-13/26: (UWG) User Needs, Considerations and Involvement (Revised)</p>
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The 13th Global Standards Collaboration meeting (Boston, USA, July 2008)

Recognizing:

- a) that appropriately resourced user input would strengthen global standards development, making it more responsive to user needs;
- b) that there are considerable challenges and barriers facing users in the structure, culture and practices of the international technical standards setting community;
- c) that it is important to broaden the scope and scale of discussion of user-related issues amongst the ITU (International Telecommunication Union) and PSOs (Partner Standardisation Organisation) and, particularly, at the GSC (Global Standards Collaboration);
- d) that new standards may lead to unanticipated problems or complexities for the general public;
- e) that before a standard for an end-user product/technology is finalised, trials with a broad spectrum of users in real life situations should be conducted;
- f) that user views should be sought in a context that ensures that standards, where possible, incorporate those views;
- g) that the standards-making process should be subject to more active public scrutiny; and
- h) that users rely on interactivity and interoperability of communications.

Considering:

- a) that the User Working Group, interested members of PSOs and a range of consumer representatives have developed a GSC Guide to Consumer Involvement in Standards Making which was adopted at the GSC-9; and
- b) that the increased emphasis on considering user issues at GSC-10, GSC-11 and GSC-12, through the User Workshop and the GSC-11 User Working Group, which discussed a wide range of high interest subjects of relevance to users including accessibility, NGN (Next Generation Network), quality of service, protection of personally identifiable information, emergency services and RFID (Radio Frequency Identification).

Resolves:

- 1) to encourage PSOs to implement a framework for end user involvement in the standards setting process;
- 2) to encourage PSOs to promote the use of PSO user guides considering end-user needs in developing Recommendations inside and outside their organizations;
- 3) to encourage PSOs to consider the impact of new technologies, particularly RFID, protection of personally identifiable information and NGN technologies on users, and collaborate on raising user awareness on these technologies and standards in development;

- 4) to encourage PSOs to provide education and training for user representatives so that PSOs can provide “best practice” in user advocacy. The training should contain skills development to assist both users and industry in the development of standards;
- 5) to support the User Group in maintaining a general acronym and technical terms consolidated dictionary for ongoing use by end-users at GSC meetings;
- 6) to encourage PSOs to create and implement a communication strategy between PSOs, users and User Groups; recognising that portals greatly assist on-going collaboration; and
- 7) to maintain the GSC definition of types of users formulated at the GSC-11:
 - Residential Consumers
 - Enterprise Users
 - End users
 - Small and Medium-Sized Enterprises (SME)
 - IT&T managers
 - Managers
 - Users with special needs
 - Service Providers
 - Government departments;
- 8) to encourage PSOs to collaborate with and where appropriate send Liaison Statements to ISO/IEC JTC1 (International Organisation for Standardisation/International Electrotechnical Commission Joint Technical Committee 1) and other standardisation bodies on user related topics;
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