

INTERNATIONAL EMERGENCY PREFERENCE SCHEME (IEPS) FOR DISASTER RELIEF OPERATIONS

The XII Meeting of the Permanent Consultative Committee I: Telecommunications,

CONSIDERING:

- a) That emergency telecommunications is a critical area for all countries of the region, especially those with fragile economies;
- b) That recent natural disasters in the region 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;
- c) That some countries in the region have introduced measures and are taking decisions designed to enhance public security, promoting and urging the rapid implementation of a nationwide emergency telecommunications services infrastructure in a well-coordinated and transparent manner;
- d) That activities are being undertaken at the international, regional and national levels within the International Telecommunication Union (ITU) and other relevant organizations to establish internationally agreed means to operate systems for public protection and disaster relief on a harmonized and coordinated basis;
- e) That the capability and flexibility of all telecommunication facilities depend upon appropriate planning for the continuity of each phase of network development and implementation;
- f) That there is a need of adopting an International Emergency Preference Scheme (IEPS) for disaster relief operations in case of an emergency in a country or region,

NOTING:

- a) 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 Communications of OCHA of United Nations);
- b) That Article 40 of the ITU Constitution addresses the ‘priority of telecommunications concerning safety of life’;
- c) That the Tampere Convention provides a process for implementation of “emergency communications” on an international basis;
- d) That the results of the World Summit on Information Society include references to disaster mitigation and reduction, the use of Information and Communication Technology (ICT) applications for disaster prevention, and the need for the establishment of monitoring systems to forecast and monitor the impact of natural and man-made disasters;

¹ CCP.I-TEL/doc. 1336/08

e) That the World Telecommunications Development Conference (Doha, 2006) in its Resolution 34 invites ITU-D to continue to ensure that proper consideration be given to telecommunications for disaster warning and disaster situations as an element of telecommunication development, including, in close coordination and collaboration with ITU-R and ITU-T and other relevant international organizations;

f) That Resolution 136 of the ITU's Plenipotentiary Conference (Antalya, 2006) calls for the use of telecommunications/information and communication technologies for monitoring and management in emergency and disaster situations for early warning, prevention, mitigation and relief; which underlines that an international standard for communication on alert and warning information can assist in the provision of effective and appropriate humanitarian assistance and in mitigating the consequences of disasters, in particular in developing countries,

RECOGNIZING:

a) That the IEPS would facilitate emergency recovery operations for restoring normal living conditions after serious disasters and/or emergency events;

b) That ITU-T Recommendation E.106 defines the International Emergency Preference Scheme (IEPS), which aims to provide authorized emergency personnel a higher probability of successful communication using the Public Switched Telecommunication Network (PSTN) under high network load conditions, such as those that might occur in an emergency,

RESOLVES:

To endorse ITU-T Recommendation E.106 "International Emergency Preference Scheme (IEPS) for disaster relief operations" with no deletions, additions or modifications.

INSTRUCTS THE RAPPORTEUR GROUP ON STANDARDS COORDINATION:

To continue to monitor emergency telecommunications developments and determines its applicability for the Americas as this work evolves.

ANNEX TO RESOLUTION PCC.I/RES. 130 (XII-08)

SUMMARY

A Standards Coordination Document is proposed which addresses ITU-T Recommendation E.106 "International Emergency Preference Scheme (IEPS) for disaster relief operations". This Recommendation aims to provide authorized emergency personnel with a higher probability of successful communication using the Public Switched Telecommunication Network (PSTN) under high network load conditions, such as those that might occur in an emergency.

STANDARDS COORDINATION DOCUMENT

INTERNATIONAL EMERGENCY PREFERENCE SCHEME FOR DISASTER RELIEF OPERATIONS

EXECUTIVE SUMMARY

As explained in Canadian contribution CCP.I-TEL/doc. 1106/07 to the Permanent Consultative Committee (PCC.I) XI meeting, the purpose of Emergency Telecommunications Services is to facilitate emergency recovery operations for restoring normal living conditions after serious disasters and/or emergency events. The contribution also outlined the standards related work in the different Standards Development Organizations (SDOs) and recommended the work on Emergency Telecommunications Services within the PCC.I Working Group on Technology.

An international preference scheme, the IEPS, is proposed in E.106 for the use of public telecommunications by national authorities in the case of emergency or a crisis situation. The IEPS is needed when there is a crisis situation causing an increased demand for telecommunications when use of the International Telephone Service may be restricted due to damage, reduced capacity, congestion or faults. In crisis situations there is a requirement for IEPS users of public telecommunications to have preferential treatment.

The users of IEPS require preferential treatment, and their traffic should be considered as high priority.

This SCD proposes that ITU-T Recommendation E.106, "International Emergency Preference Scheme (IEPS) for disaster relief operations", approved by the ITU-T SG 2 on October 31st 2003, be endorsed by the PCC.I for the region of the Americas.

BACKGROUND

In case of a crisis or emergency situation, such as natural disasters (i.e. earthquakes, hurricanes, floods, tsunamis, etc) or human led attacks, the general public would, most probably, attempt to make calls in search for assistance and help. That would mean that the telecommunication networks such as the PSTN (Public Switched Telephone Network), the ISDN (Integrated Services Digital Network) and the PLMN (Public Land Mobile Network) could experience congestion. The emergency situation could also cause physical damage on any of those networks.

In order to protect their land and citizens, many countries have already started to develop national preference schemes, so that the national authorities would be able to use the public telecommunications networks with a preferential treatment for this emergency national traffic. However, in case of a national emergency, the international support is very important. This is why an International Emergency Preference Scheme (IEPS) was created, not only for the national authorities of the country in crisis, but also to allow for the communications between the IEPS users (defined as the ones that are authorized by a national authority to have access to the IEPS) in this country and their correspondents in others.

ITU-T Recommendation E.106 describes the functional requirements, features, access and operational management (i.e. Operation, Administration and Maintenance (OAM)) of the IEPS.

The Working Group on Standards Coordination started to study Emergency Telecommunications Service at the XVI PCC.I meeting in Montevideo, Uruguay in May 2002. In addition, Section 9 of the Technical

Notebook “Next Generation Networks Standards Overview” (CCP.I-TEL/doc. 1206/07) provides a comprehensive description of the Emergency Telecommunications Service (ETS).

IEPS Functional Requirements

IEPS users should be able to use their normal telecommunications equipment (i.e. PSTN/ISDN/PLMN) when making and IEPS call in times of crisis. They should be able to call any other telecommunication user for what they have preference over other users.

It is important to clarify that the access to public emergency services is not impacted by this Recommendation. The public emergency services (such as fire, police and medical) are intended to be used by the general public and they are often invoked by a short access code (e.g. 911 in North America).

The IEPS preference scheme does not include pre-emption of existing calls.

IEPS Features

The essential IEPS features are defined in the main body of E.106. These are:

Call Marking

Calls from IEPS users should be suitably marked at the network entrance and those markings should be associated with the call until completed. These marked calls would obtain advantages from the public switched networks in signaling, traffic routing and switching over non-marked calls.

Priority Dial Tone

All the IEPS calls have the same priority, i.e. only one level of priority is defined for IEPS calls. However if the country where the call is originated has a multi-level preference scheme, this country might get an agreement with the country receiving the call, to map this multi-level preference scheme onto that of the destination country. In that case, the information carrying the level of priority should be carried transparently across the international network.

Priority call set up, including priority queuing schemes

This refers to the marking and identification of IEPS calls. While the IEPS calls progress through the networks, the identifier will enable special routing and preferential treatment to increase the probability of call completion.

Exemption from restrictive management controls

Network Management is used to protect a telecommunication network from failures and service degradation. In order to provide Network Management, a set of Operation, Administration and Management (OAM) tools are used. The OAM tools provide control measures that can be expansive or protective. Expansive measures increase call routing choices by providing more capability than normal to carry excessive traffic. Protective measures limit incoming calls. IEPS calls should be exempted from restrictive control measures.

Annex A of Recommendation E.106 offers more details on the above mentioned features and other ones such as: Priority indicator in bearer networks, Survivable access and egress from end user locations to PSTN/ISDN/PLMN, IEPS User verification, Special announcements on call progress, Special routing capabilities, Call forwarding, Abbreviated dialing, Attendant override, Authorization codes, Automatic call distribution, Call-by-call service selection, Call pickup, Call transfer, Call waiting and Calling number identification.

Appendix I of Recommendation E.106 gives an idea of what criteria could be used to select IEPS users.

CONCLUSIONS

The Working Group on Technology recommends that CITEL PCC.I endorses ITU-T Recommendation E.106 “International Emergency Preference Scheme (IEPS) for disaster relief operations” with no deletions, additions or modifications.

FUTURE WORK

The Rapporteur Group on Standards Coordination will continue monitoring the progress of the IEPS since CITEL Members State can benefit from using this scheme in case of emergencies and for disaster relief operations.

RESOURCE DOCUMENTS

[1] ITU-T Recommendation E.106, International Emergency Preference Scheme (IEPS) for disaster relief operations.

[2] “Emergency Telecommunications Services”, CCP.I-TEL/doc. 1106/07, Mendoza, Argentina, September 2007.

[3] “ITU Activities Related to Emergency Telecommunications”, CCP.I-TEL/doc. 1001/07, Buenos Aires, Argentina, March, 2007.

[4] “Emergency Telecommunications Service in Next Generation Networks”, CCP.I/doc.1476/02, Montevideo, Uruguay, May, 2002.