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INTERNATIONAL TELECOMMUNICATION UNION

TELECOMMUNICATION STANDARDIZATION SECTOR

STUDY PERIOD 2001-2004

COM 16 – LS 23

Original: English

Question(s):	I/16	Geneva, 15-25 October 2002
Source:	ITU-T Study Group 16	
Title:	New Question on Use of Public Telecommunication Services for Emergency and Disaster Relief Operations	

LIAISON STATEMENT

To:	ITU-T Study Groups 2, 3, 4, 9, 11, 12, 13, 15, 17, SSG; ITU-R; ITU-D; ETSI OCG EMTEL Ad Hoc, Project TIPHON, Partnership Project MESA, Partnership Project 3GPP, TC SPAN; IETF ieprep WG; United Nations' Working Group on Emergency Telecommunications
Approval:	Study Group 16 Plenary 25 October 2002
For:	Information/Comment
Deadline:	None

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Your liaison statements are greatly appreciated in response to our liaison statement of 15 February on new work addressing telecommunications capabilities for emergency and disaster operations. The proposed Question, Q.ets/16, has now been approved and is identified as Q.I/16. A copy of the approved text for the Question is available at http://www.itu.int/ITU-T/studygroups/com16/sg16-qi.html. The question has been structured to identify overall requirements, identify the needed telecommunication capabilities, and develop a system framework. Recognizing that there is considerable related work being addressed in many Study Groups and other organizations, close cooperation and liaison (coordination) among the many activities is essential to ensure consistency and completeness in provisioning effective telecommunication capabilities to support emergency and disaster operations. Q.I/16 is intended to facilitate this process.

Many of the responses received provided information about the work underway in the many activities. These have been compiled and developed into a "living" table that will continue to be updated as new information emerges. The table can be viewed at:

http://www.itu.int/ITU-T/studygroups/com16/ets/live-list.html

Please continue to provide information about your specific work on this important subject and your progress in developing revised and new Recommendations and standards.

Question I/16 - Use of public telecommunication services for emergency and disaster relief operations

Background and justification

The focus of this question is to address public telecommunication services that authorities can use to communicate during emergency and disaster operations. This capability, referred to as the emergency telecommunication service (ETS), will enable communications from authorized users to have preferential treatment for organizing and coordinating disaster relief operations. Preferential treatment is particularly important because telecommunication networks often experience severe stress during these events due to high traffic demands, bandwidth limitation, and possibly infrastructure damage.

Unexpected natural and manmade disasters may occur anywhere at any time. The very nature of disasters requires immediate response for organizing and coordinating recovery operations. Critical disaster recovery activities may be aided by ready availability and accessibility to public telecommunication resources to support urgent communications. The development and standardization of telecommunication capabilities to support emergency and disaster relief communications is needed.

There are a variety of telecommunication capabilities for use in emergency situations. The scope of this question addresses the capabilities specifically for authorities to use public telecommunication services for emergency and disaster relief operations. However, it is recognized that some of the technical solutions emerging from this work could be applicable to other emergency telecommunication capabilities. In addition, consideration could be given to possible interfacing between public networks providing ETS capabilities and dedicated systems used by authorities during disaster relief operations.

This question addresses a variety of issues associated with converging and evolving next generation networks including consideration for multimedia applications, as well as traditional telephony. Standards that emerge from this work are intended to apply to international ETS traffic.

Development of ETS capabilities is being addressed by many standards development and disaster relief organizations. Therefore, cooperation and liaison (coordination) among the many organizations representing different interest areas is essential to ensure consistency and completeness in the provisioning of effective telecommunication capabilities to support emergency and disaster relief operations.

Study items

1. Identify organizations addressing the various aspects related to telecommunication capabilities for emergency and disaster relief operations
2. In conjunction with Study Group 2, identify user requirements for ETS capabilities, e.g. solicit input from Administrations and disaster relief organizations.
3. Define ETS capabilities drawing from identified user application requirements.
4. In conjunction with Study Group 17, define security aspects for authentication of users and prevention of interference, e.g. spoofing, changing content, denial of service, eavesdropping, with ETS traffic.
5. Define the terminology associated with ETS capabilities for emergency and disaster relief operations

Specific task objectives with expected time-frame of completion

1. Develop and maintain a table of work items related to ETS being addressed by standards development organizations and other relevant organizations, which provides initial and eventual target dates for completion of the work items - living document
2. Develop an emergency telecommunication requirements Recommendation - first draft May 2002. This continuing work will draw from actual user. This is a SG2 objective -first draft June 2003

3. Identify the ETS capabilities that are needed to fulfil the requirements - first draft January 2004
4. Liaise with organizations or activities responsible for addressing specific capabilities - ongoing
5. Develop a system framework Recommendation identifying the components needed to support the ETS capabilities -2005

Relationships

ITU-T Study Groups 2, 3, 4, 9, 11, 12, 13, 15, 17, and SSG

Questions of related topics within ITU-T Study Group 16, e.g., 2, F, G, and C-Metadata Ad Hoc

ITU-R - WP 4B, WP 8A, and WP 9B

ITU-D - Study Group 2

UN Working Group on Emergency Telecommunications (WGET)

Internet Engineering Task Force (IETF) - IAB, IESG, ieprep Working Group

European Telecommunications Standardization Institute (ETSI), OCG EMTEL, Partnership Project MESA, ETSI Project TIPHON, and Partnership Project 3GPP

Telecommunications Industry Association (TIA) Partnership Project 3GPP2

Asia-Pacific Telecommunity Standardization Program (ASTAP) Expert Group on Public Disaster Relief Communications

User organizations - UN and other international disaster relief organizations

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Live-list of areas of work on ETS issues in several organizations

Entity	Working Group	Subject	Recommendation/ Standard/ Outcome	Status	Comment
ITU-T SG 2	Q.3/2	Description of an International Emergency Preference scheme	E.106	Planned to be revised December 2002	
ITU-T SG 2	Q.6/2	NMDG	none	Mutual cooperation	Next meeting – June 2003, France
ITU-T SG 2	Q.2/2	Signalling of Proposed QoS Service Classes for IP-, ATM-, and ATM-Based Multiservice Networks	E.QSC	Under development	
ITU-T SG 2	Q.2/2	QoS Routing & Related Traffic Engineering Methods for IP-, ATM-, & TDM-Based Multiservice Networks	E.TE	Under development	
ITU-T SG 3		Tariff and Accounting Principles including telecommunications economic and policy issues			
ITU-T SG 4	Q.9/4	ETS Management Service	M.ets	Under development	AAP Feb 2003
ITU-T SG 4	Q.9/4	QoS Management	M.qos	Under development	AAP Nov 2003
ITU-T SG 9	Q.13/9	IP CableCom	J-series	Under development	
ITU-T SG 11	Q.6/11	Signalling Systems	SS7/BICC	Under development	
ITU-T SG 12	Q.8/12	E-Model	G.107	In Force	
ITU-T SG 12	Q.16/12	INMD (for Voice Quality Monitoring)	P.561 and P.562	In force: P.561; In revision (to adapt to IP): P.562	
ITU-T SG 12	Q.10/12, Q.11/12, Q.14/12	Transmission Planning	In particular, G.109	In force	
ITU-T SG 12	Q.13/12	Multimedia QoS/Performance requirements	G.1010	In force	

				G.MMPerf in progress	
ITU-T SG 13	Q.1/13	ETS Framework	Y.roec	Under development	
ITU-T SG 13	Q.6/13	Quality of Service	Y.1541		
ITU-T SG 15		ASON		Under development	
ITU-T SG 16	Q.ETS/16	ETS oversight			
ITU-T SG 16	Q.2/16	ETS protocol indicator	H.460.4	Under development	
ITU-T SG 16	Q.F/16	Quality/priority classes	H.priority	Under development	
ITU-T SG 16	Q.G/16	ETS Security	H.235	Being revised	
ITU-T SG 16	Q.C/16	Service Definition	F.706	Under TAP	Oct 2002
ITU-T SG 17	Q.10/17	Security	X.800 Series		
ITU-T SSG	Q.1/SSG	Service Capabilities Framework of Network Aspects for Systems Beyond IMT-2000	Q.SCFN	In progress (to be completed in 4Q02)	
ITU-T SSG	Q.6/SSG	Harmonization of evolving IMT-2000 systems	Initial draft documents under development	On going	
ITU-T SSG	Q.7/SSG	Convergence of fixed and existing IMT-2000 systems	Baseline document on principles and requirements for convergence of fixed and existing IMT-2000 systems	On going	
ITU-R SG 4	WP 4B covering the fixed-satellite service (FSS)	Transportable earth station	S.1001 Use of systems in the FSS in the event of natural disasters and similar emergencies for warning and relief operations	Published April 1993	

ITU-R SG 4	WP 4B	Error performance definitions for satellite links	S.OTNbackup for speeds from 2.5 to 40 Gbit/s	Started April 2002	
ITU-R SG 4	WP 4B	Error performance for digital satellite links	S.1062	Currently under revision to increase data rates	
ITU-R SG 4	WP 4B	Availability of satellite links	S.579 – version 5	Currently under revision to update objectives	
ITU-R SG 4	WP 4B	Satellite News Gathering Users Guide (Handbook style publication 1996)		Online version, updated, already available	
ITU-R SG 4	WP 8B				
ITU-R SG 9	WP 9B	Transportable fixed radiocommunication equipment for relief operation	F.1105	New version to be approved 25 May 2002	
ITU-D SG2		Handbook on Disaster Communications		Published Feb 2002	
IETF	ieprep	Requirements and preferential handling of ETS traffic	Several proposed RFCs	Under development	
ETSI	Project TIPHON	ETS Requirements Definition	DTR 00004-1	Planned 11/2002	
ETSI	Project TIPHON	ETS System Description	DTR 00004-2	Planned 11/2003	
ETSI	Partnership Project MESA	Mobile Emergency Safety and Applications	Under development		
ETSI	Partnership Project 3GPP	Priority access for 3d generation wireless	Under development		
NMDG	-	Disaster Preparedness and Recovery	To be included in NMDG Handbook	Approved June 2002	