**Rapid Technology Assessment Teams (RTAT)**

**Executive Summary**

**Version 12.0 (17 AUG 2012)**

**The Problem:**

The first hours and days after the onset of major global disasters are typically fraught with chaos and lack of situational awareness.  While there are existing disaster assessment teams from major organizations that deploy to such events, these teams primarily focus on sector specialty areas other than Information and Communications Technology (ICT) and Information Sharing.  The ICT sector is critically important as it enables and supports all others.

The arrival of the global response community usually brings a welcome and powerful ICT capacity resource, but sometimes their arrival and the accompanying ICT equipment and capabilities do not link effectively with the host nation ICT and power suppliers. This can mean that the effectiveness of the combined available resources are not maximized, leading to gaps and duplication when there may be enough technical solutions present to accommodate all requirements.

After recent disasters the host country has often not requested international assistance, this is a trend that many believe will continue. The disasters have often been managed internally with requests only made for specific assistance. During this time the host nations resources are stretched and they are often unable to provide an accurate assessment of ICT and power needs , this information is critical to obtaining targeted support that will enable the response and the recovery of business.

Specific problems include:

* In the immediate aftermath of a major disaster there is often a gap in the knowledge of ICT infrastructure status and a lack of communication between the International Humanitarian Community (IHC) arriving on scene and the affected state’s national infrastructure stakeholders.
* We do not know how to get the overall ICT infrastructure Common Operating Picture in the hands of the effected state and the IHC as well as to the ISP/GSM/Telecom Ministers, etc.
* We do not know how to discover the methods and resources being used in a disaster for sharing information up and down the chain between the national, government, and infrastructure providers.

There is no coordinated approach today of establishing a common situational overview of this ICT infrastructure

Current assessment methods are limited as no single agency has the resources to perform a comprehensive assessment of the ICT situation

**What Exists Now:**

There are teams that currently perform some very basic ICT assessment functions including  ( i) the United Nations Disaster Assessment and Coordination (UNDAC) international emergency response system whose core mandates are assessment, coordination and information management to assist the UN and governments in an emergency; (ii) the Emergency Telecommunications Cluster (ETC); ( ii) the International Federation of Red Cross/Red Crescent (IFRC) First Assessment and Coordination Teams (FACT); and iv) ICT based NGO’s such as Nethope and TSF have some assessment responsibilities. Some of these teams are on standby to deploy rapidly (in 12 -24 hours) as required.

**The Requirement:**

A proposed solution would be creating the ability to rapidly deploy ICT Assessment Teams – small, nimble, multi-organizational, multi-national integrated teams of specialists in key ICT areas (wireless data communications, voice communications, radio technologies, power, information sharing, social networking, etc.). The real niche this program represents is that the teams can be made up of experts from a variety of different organizations –industry, UN, NGO, academia, IO, affected nation government and military, and international governments/militaries.

Once a comprehensive overview of the ICT situation has been established, a priority list of ICT needs can then be drawn up in coordination with the host nation.

The RTAT team will also be be requested to provide specific ICT disaster assessments in the event that full International assistance has not been requested by the host Nation.

**The Teams Will Provide**:

Field data containing both Host nation and IHC information and communications technology and power needs and capabilities

Quality assessment of this information by experts and the distribution of *reliable, trusted*  information

This Initiative does not seek to duplicate any existing process but to reinforce and ena*ble the existing i*nternational*l*y accepted processes by meeting a need that is recognized but that is not currently effectively being met. Concentrating on human interfaces and not technology, the team of highly trained inter-organizational personnel will identify and find answers to specific questions, compile a common operations plot and link with the host nation and the IHC enabling fast early recovery.

 Specific requirements or capabilities include:

* Having the ability to quickly deploy (within 24 hours)
* Having direct links to local industry and government
* The ability to stay in the disaster zone 1-2 weeks, then reassess need to remain longer or to rotate in new teams
* The team having access to ICT expertise across the functional spectrum (ISP, cellular, data networks, power, etc) with both the international technical community as well as local/national citizen experts
* To have a keen understanding of the need to work in close collaboration with existing teams on the ground

**Who the teams would be made up of:**

Ideally these small teams of experts would be composed of 1-2 representatives from each of the following organization types: UN, NGOs, IGOs, academia, industry, military and government agencies from around the world.  The formal/legal/business organizational makeup of the overall program and teams themselves would be determined by the founding member organizations.

The leadership of the teams should be:

* + Team Leader (from either the global or regional technical community)
	+ National (affected state) Member (National Disaster Management Agency or Ministry of Communications or equivalent organizations affiliated for example)

We still need to determine:

* + Skill sets and qualifications and exact number of people to make up each team
	+ Current thinking is to have government and/or industry experts from the ISP industry, the GSM/other cellular/landline industry, the power infrastructure industry, the wireless broadband industry, and the satellite communications industry at a minimum.

**What the teams readiness status would be:**

Small teams of qualified/trained experts from across the ICT spectrum on 24X7 stand-by to deploy as soon as possible but likely for 1-2 weeks in shifts.

We believe that before being ready/able to deploy to a specific disaster zone there should be a BASELINE ICT/Info Sharing assessment capability in place. These assessments should be accomplished well ahead of time in each country prone to regular disasters at a minimum. Such assessments could be done by RTAT supporting entities such as industry and academia. The benefits for such assessments, which would be provided to the host nation government, would go well beyond the RTAT concept and be able to point out potential general ICT vulnerabilities and resilience gaps to all concerned parties.

**Where the team members would be located:**

RTAT teams would be stationed at key locations around the world, perhaps modeled after the UN Disaster Assessment and Coordination Teams program, or possibly as associate members of NetHope, the UN UNDAC, ETC or other similar teams. These teams could be called on by the host nation, UN/OCHA, or a regional entity such as ASEAN.

**TImeline of RTAT concept development:**

In late 2011 we began work on a process of developing the concept, identifying founding member organizations, outlining team member qualification criteria, forming the teams, training and exercising these teams, and iteratively refining the program. We believe that if a real-world disaster event happens any time in the near term future, and if the teams have been identified and the roles, responsibilities and operating procedures are sufficiently advanced then there could be an opportunity to “jump start” the entire process by necessity by deploying to such a real -world event. Caution of course would be needed to ensure this would not hinder but rather help the overall response efforts.

O**rganizations who have helped develop the RTAT concept:**

UN/NGO Community:

 - UN (UN-OCHA)

 - UN (UN-World Food Programme/ FITTEST)

 - UN (Emergency Telecommunications Cluster (ETC))

 - Telecoms Sans Frontieres -

 - Demining NGO community

 - New Zealand Red Cross

 - NetHope

 - InSTEDD

 - CrisisMappers.Net

Industry:

 - Cisco Systems

 - Microsoft

 - Global VSAT Forum

 - Delorme

 - Inmarsat Government Services, US, Inc

 - Oceus Networks

 -MEDWEB

Academia:

 - Naval Postgraduate School (US)

 - University of Texas

 - San Diego State University

 - National Defense University (US)

Government/Military Community:

 - US Department of Defense

 - Pacific Disaster Center

 -Japan Resiliency Initiative

 - International Association of Emergency Managers (IAEM)