



REPORT FROM AIDF PANEL DISCUSSION:

Moving forward with technology: *Another tool in the toolbox?*

Are we actually moving forward with technology? We have new partnerships, innovative technologies, and we definitely have the motivation, so where are we going with it all?

In 2012, a panel of humanitarian IT and telecommunications experts identified seven key lessons to be learned by the emergency response community, spanning IT innovation, new technologies, partnerships, resource-sharing and social media. It was agreed that these needed to be implemented in order for the community to advance and save more lives.

In January this year, these lessons were addressed again at the Aid and International Development Forum (AIDF) Asia-Pacific event. In a session entitled *Moving Forward with Technology: Another Tool in the Toolbox?* representatives from UN, NGO, Stand-by Partner, Government and Private sector organizations participated in a panel discussion to address advancements within the humanitarian IT community.

This document captures the discussion for the purpose of acting as a guide for future operations. The discussion is divided into the topics identified in 2012. Each section opens with the subject and outcome from the 2012 report.

Panelists:

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Representative, Global VSAT Forum



Are we actually moving forward with technology? We have new partnerships, innovative technologies, so where are we going with it all?

Photo credit: WFP/ Mariko Hall

Dadaab, Kenya 2011

Approach new technologies with cautious enthusiasm

Humanitarian and private sector organizations should be more proactive in approaching each other when developing new technologies.

Generally speaking, new technologies offer better, faster, cheaper and more robust services than their outdated counterparts. Even so, humanitarian organizations are still reluctant to adopt and implement them in the field. Bulky, fail-safe equipment is preferable to smaller cutting-edge, but unpredictable, tools.

Companies developing these technologies do not always have access to - nor understand - the environment in which the relief community operates. As a result, there is a tendency for the private sector to push solutions they conceive for a different market yet believe can be applied in an emergency context. The environment in which humanitarian workers operate can be harsh and hostile; conditions unsuitable for testing new tools. Equipment may work in a developed setting, but if not fully functional when implemented in the deep-field, the same solution can literally cost lives.

While eager to have new, more efficient and effective solutions, relief organizations often fear that companies are simply looking for a foot in the door. They fear being stuck in a situation where they must purchase from a single provider – in breach of strict procurement protocols. Funding too is a pervasive obstacle. Humanitarian operations rely on funding from donors, however, often donors do not understand the complexities of IT in emergency response.

There is a variety of motivations for why the private sector wants to collaborate with the humanitarian community and, admittedly, marketing is one of them. From the outset, both the private and humanitarian organizations must be completely transparent with what the engagement seeks to achieve. There should be no expectation to purchase and there should be no commercial competition between vendors.

Going forward, it will become expensive to run old-but-proven technologies. In terms of satellite connectivity, for example, new solutions exist that increase the capacity of the terminal, thereby reducing cost per bit. There will be significant cost-savings with this technology, however, for it to be applied, its reliability must be guaranteed.

Ericsson Response, a non-profit activity of Ericsson, engages employees in volunteer work with no commercial objective. Ericsson Response has collaborated with the Emergency Telecommunications Cluster (ETC) to develop 'WIDER' - a central globalised management solution that provides secure network access and allows for monitoring use of internet services. As global lead of the ETC, the World Food Programme (WFP) worked closely with Ericsson



Ericsson Response has collaborated with the ETC to develop 'WIDER' - a central globalised management solution.

*Photo credit: WFP/ Rob Buurveld
Maban, South Sudan 2012*

Response to develop this tool. They identified requirements, deployed to steady-state operations to test and carried out the first real implementation – together. In addition, Ericsson Response provides both the equipment and services at no cost to the humanitarian community.

Relief organizations are willing to engage with the private sector for development of new technology, however the terms of the collaboration must be well defined. Aid agencies do not just need solutions, but solutions tailored to their requirements and environments.

The challenge put forward then, is who is game enough to test their technology in the hostile and unpredictable deep field to show the humanitarian community that it works?

Partnerships involve giving too, not just taking

The concept of partnering should evolve past requesting basic financial donations towards developing actual relationships with real exchange.

“What is in it for me?” should not be the first question asked when considering a partnership with the private sector. The traditional expectation from aid agencies is for companies to provide services or products for free, if not pure cash donations. The question should, however, be “what can we offer you in return?”

Similar to when developing new technologies, aid organizations have had negative experiences with the private sector in terms of partnering. There have been situations in which companies have engaged, started to provide a service as a donation and then it was realised that the main reason for the partnership was so that the humanitarian partner would be obligated to buy from that vendor.

The cost of collaborating is also often underestimated. Initiating and establishing partnerships involve significant investment in terms of human resources – and therefore money. And sometimes, after

considerable effort, the partnership never actually comes to fruition. While it is recognised that the more time invested in developing a partnership, the more successful it may be, there is an inherent culture clash between the private and humanitarian sectors.

emergency.lu – a multi-layer communications solution for emergency response - was developed by the Luxembourg Directorate for Development and Cooperation, along with private Luxembourg-based companies. As a platform coordinated by the government, emergency.lu approached the private sector within the country, went with them to speak to humanitarian organizations and identify their needs in the field and to develop a solution tailored to respond to their needs. In this case, the Government of



emergency.lu was developed by the Luxembourg Directorate for Development and Cooperation, along with private Luxembourg-based companies.

Photo credit: WFP/ Haidar Baqir
Bentiu, South Sudan 2012

Luxembourg acts as a sort of intermediary between the private and humanitarian sectors, ensuring transparency and adherence to rules of the partnership.

During the 2010 Haiti earthquake relief operation, collaboration between private and humanitarian sectors benefited many NGOs responding to the emergency. Private organizations came forward with offers of gifts in-kind as well as services, such as secondment of top class engineers from leading technology companies to carry out training on installing and maintaining the equipment.



During the 2010 Haiti earthquake relief operation, collaboration between private and humanitarian sectors benefited many NGOs responding to the emergency.

Photo credit: NetHope

Port-au-Prince, Haiti 2010

Global VSAT Forum (GVF), a non-profit international association of satellite service providers, spacecraft operators and equipment manufacturers, has created the Disaster Preparedness Registry to facilitate response efforts. This registry provides humanitarian organizations with contacts for existing satellite communications resources in the area after a crisis, essentially turning installed-bases into pre-deployed stand-by capacity.

Partners must be open and transparent about their expectations from the outset.

Private sector organizations such as Ericsson Response have rosters of highly skilled volunteers who provide surge capacity – at no cost to the humanitarian community - in the event of an emergency. Significant time has been invested in establishing such relationships, however the benefits are tremendous.

Reiterating a point already made, partners must be open and transparent about their expectations from the outset. The recipient aid organization needs to fully understand what the private company hopes to achieve from the relationship. It must be clear from the beginning where the partnership is being taken, and clear rules framing the agreement must be established to ensure the humanitarian partner stays within the borders of what it can and cannot do.

The private sector does not have the same access to the harsh and unpredictable conditions in which the humanitarian community operates. As a result, the private sector is very willing to donate products, services, technologies in exchange for information about how they work, how useful they are and what improvements are required. Such a two-way technical exchange gives the private sector a chance to test, and the humanitarian community a chance to have, new products and services.

Commercial entities have skills that the humanitarian community lacks, especially within the technology sector. Their willingness to provide services in-kind, like the example from Haiti, should be embraced.

Each has a different modality for business and as such, each needs to understand the other. The more that each partner understands the other's cultural deviations, the stronger the partnership can become.

If we agree to share, we can achieve more and save money

Relief agencies need to make more of an effort to share equipment and services in the field, which will save both time and money.

In the past humanitarian organizations have been gripped by a misguided conviction that owning equipment equals power. The unwillingness to share equipment and services also derives from predictability. If agencies respond with their own equipment, they know what services they will have.

The ETC is mandated to provide timely, predictable and effective IT and telecommunications services in an emergency operation. One of the drivers behind emergency.lu was to ensure that the ETC was robust and had a predictable way of responding with services for the entire humanitarian community, so aid workers will know what to expect and will not need individual solutions.

Prior to deployment of the ETC response solution in South Sudan, many organizations were relying on individual satellite connectivity solutions. When the first internet café was set up in Bentiu in January 2012, over 70 humanitarian workers came together, all operating in a harsh environment, to work, talk and discuss. They were able to share not only equipment and services, but also experiences, information and support.

Again, in Haiti, NGOs worked together to establish a network and share bandwidth from a central point. Preference must always be given to local internet services providers (ISP), however, ensuring



In Haiti, NGOs worked together to establish a network and share bandwidth from a central point.

Photo credit: Cisco

Port-au-Prince, Haiti 2012

international organizations are not taking work from them. Industry associations can be used to locate and gain access to local service providers, either through formal programmes such as the GVF Disaster Preparedness Registry or membership contact lists.

The Humanitarian Internet Support Project (HISP) in South Sudan is being deployed to provide connectivity to remote locations with no other reliable alternative. HISP does not intend to be a large-scale ISP. A cost-recovery model will be established to provide relief workers on the ground with consistent connectivity services, without extreme costs.

The ETC is also working to establish a service-sharing structure for operations in which there is already a well-established organization with strong connectivity. The

agreement would involve connectivity being shared with smaller organizations, without jeopardizing their own services. This would eliminate the need for smaller agencies to invest in new equipment and would instead tap into services already established. An attitude shift will need to accompany this initiative as agencies will need to accept that they will not have full control when they are sharing. Solid local agreements should be established to accommodate and encourage acceptance of shared solutions.

Organizations should also consider extending the partnership and sharing approach beyond initial emergency response, to all phases of the disaster management cycle.

At the end of the day, every organization has business needs that must be satisfied and it is up to the individual organizations to see the value in sharing. There is no shortage of realms for collaboration – working groups, task forces, etc. Humanitarian organizations should work together to identify common denominators and particular needs, and build upon them.

Social media is a valuable source of information. Let's take advantage of it.

Social media should not replace any other information-gathering solution, but should be recognised for its contribution to the humanitarian toolbox.

Since the Haiti earthquake in 2010, humanitarian emergency responders have been increasingly faced with social media as a source of information, in particular crowdsourcing. Properly managed this data could be invaluable and be used to make actual life-saving decisions. The challenge, however, is how to accurately and appropriately harness the torrent of information that comes with it. There are also a

number of weaknesses with using this tool as a reliable source of actionable information.

Information from crowdsourcing can be great if there are many messages coming from one village with no food, for example. But what if the next village does not have connectivity so they cannot get their message out? It is difficult for the humanitarian community to utilise crowdsourcing and ensure operations are fair and impartial, as the information is raw, unvetted and often related only to a constrained area.

Crowdsourcing can be useful in emergencies in countries that are more developed and have a media focus, like Haiti. However, there are so many forgotten emergencies in Africa and Asia, out of direct media interest, that do not have this opportunity.

Another challenge with crowdsourcing is sustainability. The influx of information peaks during emergencies,

when many people want to help and volunteer their time. After the emergency however, the time when solutions should be being developed, interest wanes.

World Vision International is working on an initiative to assist their operations at field-level with collating and interpreting this information. The Basic Rapid Assessment Tool (BRAT) is part of a bigger



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Photo credit: World Vision Philippines

Agusan del Sur, Philippines 2012



World Vision International is testing crowdsourcing for early warning. The idea is to have a pool of real-time data that is gathered by people in villages where the organization has steady-state operations.

Photo credit: WFP/ Charles Hatch Barnwell

Mozambique 2010

project called Speed Evidence, a web-based platform to provide access to context specific information from multiple sources within the first week of a rapid onset emergency. The model involves capturing the ‘noise’ in the first hours after an emergency - when the affected population is talking about what happened - through crowdsourcing. The solution aggregates the noise and targets the information to assist decision-making. The project is still at the conceptual level, but BRAT has been piloted and is currently in use by a few World Vision International field

offices.

World Vision International is also testing crowdsourcing for early warning. The idea is to have a pool of real-time data that is gathered by people in villages where the organization has steady-state operations. If a farmer sees no rain for three months, for example, he can send a text message, which could be a warning that something might be happening in the area.

Crowdsourcing has a lot of potential that the humanitarian community is yet to understand how to leverage. It is envisaged to be an effective tool to fill the information gap between when the emergency actually strikes and when it reaches the news. There has been some success, but also many challenges. There is a lot of trepidation in regard to ensuring that data gathered is accurate and verifiable. How to best leverage crowdsourcing in a non-biased manner and take the concept forward, is yet to be realised.

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Let's innovate together

Humanitarian organizations should work together when developing information management solutions, in order to develop true inter-agency tools which support the entire community.

The need to share information amongst humanitarian partners is undeniable, evidenced by the numerous IT solutions being developed within the community itself to enable seamless access to data from different sources. The needs of different organizations can be quite specific. As a result, multiple platforms are being developed, despite their similar functionalities.

Information management is a sensitive topic. There are two types of information - marketing information and operational information; but what type are humanitarian organizations willing to share? Before they can advance with partnering and innovating solutions, organizations must first agree what information they are actually willing to share.

With the evolution of information management over the last decade, a number of challenges have surfaced including how to efficiently share information and set standards. As technology grows, there are more ways to exchange information.

Communicating with affected populations brings home the need for better standards and baselines.

The humanitarian community should be working towards creating a global platform that allows all aid organizations to share and have access to the same information.

In addition to its satellite terminal and bandwidth provision, emergency.lu also strives to provide a solution that allows for better coordination. Other solutions including Ushahidi, EPIC, Sahana and Speed Evidence are well into development, with the application of each often overlapping.

The ETC has made huge leaps in ensuring emergency operations are coordinated. However, looking at products and services in more detail reveals there is obvious duplication at platform level. The focus needs to be on data and sharing, rather than duplication of services. As humanitarian organizations, there should be no competition between each other.

The humanitarian community should be working towards creating a global platform that allows all aid organizations to share and have access to the same information.

Organizations should go forward to innovate together, developing interoperable solutions and expanding networks to merge, rather than applying different standards.

The approach of technology should be to provide the capability to cooperate when the situation on the ground allows it. Currently, it seems that developers are too focused on providing one absolute solution that will be all things for all humanitarian workers. The role of technology should be like building blocks for people in the field where they can add and takeaway what they need. There are many different technologies and solutions, but the humanitarian community it yet to see something to help more established organizations make sense of all the data.



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*Photo credit: WFP/ Mariko Hall
Dubai, UAE 2011*

Always be in preparedness mode

Preparedness should be a part of all operations, ensuring that when the next disaster strikes, lessons learned from the last response have already been implemented.

It is no revelation that preparedness enables a better emergency response. Preparedness is extremely important, however, development of new initiatives is complicated by the fact that it is impossible to predict what and where the next emergency will be and when it will strike. In addition, preparedness activities are very often under-funded.

GVF has a roster of 2000+ technicians in developing countries who have been trained on installing general VSAT systems, regardless of frequencies and equipment. In addition to providing immediate response capacity, local personnel can sometimes access areas that partners cannot, and their deployment supports the national economy.

In addition to the constant technical-skills upgrade required by the evolving nature of IT and telecommunications technologies, responders must also be prepared for emergencies in terms of managerial and survival skills. Working in disaster situations can be traumatising. A number of training courses take place within the humanitarian community to prepare IT responders. These include inter-agency disaster simulation exercises that allow individuals to not only learn and develop their skills, but also to network and build relationships with their peers. Preparedness efforts must involve developing the skills of local staff on the ground as well as surge capacity. Resident staff often form the best response as they have the local contacts and knowledge.

Training, research and development, must be carried-out well in advance of the disaster to prepare both the technology and the staff.

As poignantly pointed out by the panel, IT and telecommunications equipment deployed in humanitarian emergency operations is not bought in the supermarket. Considerable training, as well as research and development, must be carried-out well in advance of the disaster to prepare both the technology and the staff.

In emergencies, aid organizations do not have the luxury of trialling or learning how to use new equipment. They do not have the capacity to be entering into long negotiations with the private sector for partnerships and contributions. By this stage, when lives need to be saved, there already needs to be a response prepared.



Global VSAT Forum has a register of 2000+ technicians in developing countries who have been trained on installing general VSAT systems.

Photo credit: NetHope

Nairobi, Kenya 2009

Conclusion

The conclusion drawn from this debate is that we – as the humanitarian IT community – are making progress. We are learning, evolving, and adapting to the constantly changing operating environment. Since these topics were first identified in June 2012, we have advanced in terms of innovation and collaboration. We remain cautious, but still open to new technology and partnership ideas. We are keen to engage with the private sector and share with our humanitarian partners, provided there is honesty and transparency from the outset. We embrace social media and understand that it will be a valuable tool, and we will work towards finding an interoperable information management platform from which we can all benefit. Together, we will work towards developing new solutions, deploying new technologies and preparing our teams for deployment.

The over-arching lesson we identified, we acknowledged and we will learn, is that to be truly efficient in humanitarian IT emergency response, to be effective and save more lives, we must go forward as a community.



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Photo credit: WFP/ Mariko Hall

OpEx Bravo, Germany 2012

Acronyms

AIDF	Aid & International Development Forum
EPIC	Emergency Preparedness Integration Centre
ETC	Emergency Telecommunications Cluster
GIS	Geographic Information Systems
GVF	Global VSAT Forum
ICT	Information and Communications Technology
ISP	Internet Services Provider
IT	Information Technology
NGO	Non-Governmental Organization
UN	United Nations
VSAT	Very Small Aperture Terminal
WFP	World Food Programme
WGET	Working Group on Emergency Telecommunications
WVI	World Vision International

Participants

Martin Kristensson

IT Emergency Coordinator, IT Emergency Preparedness and Response branch, UN World Food Programme (WFP)

Since joining the UN two decades ago, Martin Kristensson has implemented IT solutions in many of the world's most severe humanitarian crises. Martin joined WFP in 2001 as part of the Fast IT & Telecommunications Emergency & Support Team (FITTEST) where he was directly involved in the IT response to numerous emergencies including Afghanistan, Iraq, Darfur and Haiti. In his current position of IT Emergency Coordinator, Martin manages Emergency Telecommunications Cluster (ETC) activities to ensure a rapid and efficient IT response to humanitarian crises.

Marianne Donven

Head of Humanitarian Assistance Desk, Directorate for Development Cooperation, Luxembourg Ministry of Foreign Affairs

As Head of the Humanitarian Assistance Desk, Marianne Donven coordinates Luxembourg's emergency humanitarian aid within the Directorate for Development Cooperation of the Luxembourg Ministry of Foreign Affairs. Since 2010, she has coordinated the innovative satellite-based telecommunication platform emergency.lu, designed as a public-private-partnership and offered to the humanitarian community as a global public good, with the objective to improve communication and coordination in emergencies.

Brent Carbno

Program and Solutions Manager, Ericsson Response

Having spent over a decade with Ericsson, Brent Carbno has held a number of both technical and managerial positions, including Technical Expert, Team Leader and Project Manager. For seven of these years, Brent was a volunteer with the company's staff volunteer initiative – Ericsson Response – which deploys employees to provide mobile communication solutions to support disaster relief work in partnership with humanitarian agencies. Brent is now dedicated full-time to Ericsson Response in the position of Program and Solutions Manager. His key tasks include evaluating Ericsson technology for use in humanitarian operations.

Patrick Gordon

Chief, Information Technology Section, UN Office for the Coordination of Humanitarian Affairs (OCHA)

As the Chief of the Information Technology Section of the United Nations Office for the Coordination of Humanitarian Affairs (OCHA), Patrick Gordon is accountable for effective management and delivery of ICT related products, tools and services. In this position he is also responsible for overall governance of ICT within UN OCHA's enterprise, including 30+ Field Offices, and emergency response operations. Prior to this, Patrick held a number of other positions with the UN including Technical Officer with OCHA, Mine Information Advisor with the UN Office for Project Services (UNOPS) and ICT Advisor with the UN Development Programme (UNDP).

Isaac Kwamy

Associate Director, Humanitarian Information & Communication Technology, World Vision International

In his current role, one of Isaac Kwamy's major responsibilities is strategically leading World Vision international ICT emergency preparedness and planning by equipping and building capacity to respond better in emergencies. Prior to his work at World Vision, Isaac held various positions with World Relief, Tearfund, and Samaritan's Purse, and has a deep and practical understanding of emergency response operations in a vast number of contexts.

Christopher Sivertz

Representative, Global VSAT Forum

Christopher Sivertz has 32 years of experience in the ground segment of Satellite Communications. He has supervised the installation, commissioning and troubleshooting of Satcom Systems in over 40 countries, mostly in developing regions. In recent years, Christopher has expanded his focus to include training courses provided by Global VSAT Forum. He routinely conducts hands-on training in all aspects of VSAT for students from throughout the Asia-Pacific region.

About AIDF

The Aid and International Development Forum (AIDF) is a leading event for the humanitarian aid, relief and development sectors. AIDF facilitates partnerships, addresses global humanitarian and development issues and encourages sharing of expertise. As a centre of operational activity and international support for these sectors, Bangkok hosted the inaugural AIDF Asia-Pacific event, 30 - 31 January 2013.

To read the outcomes and lessons learned from the 2012 session, visit: http://www.aidforumonline.org/news/another_tool_in_the_toolbox

Useful Links

emergency.lu
Ericsson Response

Emergency Telecommunications Cluster (ETC)
Emergency Preparedness Integration Centre (EPIC)
Global VSAT Forum
UN Office for the Coordination of Humanitarian Affairs
Sahana
Ushahidi
World Food Programme
World Vision International

www.emergency.lu
www.ericsson.com/thecompany/sustainability_corporateresponsibility
www.ictemergency.wfp.org
www.globalepic.lu
www.gvf.org
www.unocha.org
www.sahanafoundation.org
www.ushahidi.com
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