ETC2020

Work Streams Outcomes

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Purpose of Document

This document captures key discussions and outcomes from the ETC 2020 envisioning and strategy development process, especially the six thematic work streams. The content of this document has been used to develop the draft ETC 2020 strategy.

Context

Born from the 2005 Humanitarian Reform Initiative, the Cluster Approach was introduced to enhance predictability, accountability and partnership in humanitarian coordination. Since inception, the Emergency Telecommunications Cluster (ETC) has progressively undertaken its mandate to provide timely, predictable and effective Information and Communications Technology (ICT) services to the humanitarian community in disaster operations. These critical communications services provided by the ETC, allow humanitarians to carry out their work efficiently, effectively and safely, and to save lives.

Drivers for Change

The future technology and humanitarian landscapes are predicted to be completely different from what we experience today. This calls for the ETC to assess itself in view of repositioning to deliver innovative technology services that will transform future aid delivery in a complex humanitarian environment.

Two key drivers for ETC 2020:

- New humanitarian challenges: A number of key megatrends will influence future humanitarian action, such as changes in demography, technology and science, economics, political power, climate and patterns of conflict.
- Rapid innovation in technology: Technology has developed significantly, and so too has the expectation of the ETC to provide better, faster and more advanced services in the field.

Vision 2020

*"By 2020, the ETC in partnership with leading edge technology companies and local telecommunication providers will create an environment for emergency response which allows humanitarian responders, citizens and governments to have a seamless, resilient and *principled **communications experience in order to facilitate the delivery of humanitarian aid. The ETC will be seen as innovative, visionary and a leader in convening the humanitarian technology community, and brokering full service communication solutions between private industry, governments, humanitarians, and communities."*

** grounded in humanitarian principles*

*** not just connectivity*

Vision 2020 highlights the evolving clients, role and focus of the cluster:

- Clients: The 'clients' of the cluster are evolving. Right now the cluster directly serves humanitarian responders. Increasingly, the direct clients of the cluster will also include disaster affected communities and governments.
- Role: The role of the cluster is evolving. Currently the cluster is about service provision when there is a gap. Increasingly the role of the cluster will need to become that of a broker to ensure that the services needed by clients are being provided. This would mean ensuring services are provided by others, and not necessarily by cluster directly. This will entail being a communications broker not 'just' a connectivity broker. The ETC also needs to be a visionary for the humanitarian community - seeing and leading the humanitarian community towards service opportunities that the externally changing telecoms world is making possible.
- Focus: More focus on telecoms resilience/preparedness not 'just' response. The cluster currently is focused on communications as a tool to support other kinds of aid, the new cluster will focus on positioning communication itself also as aid.

Work Streams Outcomes

1. Services to Humanitarian Community

1.1. Scope

The future aid worker is expected to be a 'digital humanitarian responder', who will demand significantly better and more enhanced services. This worker will expect to have the same or similar level of connectivity and communications experience they have in their corporate office. They will be a connected individual, with their own (BYOD), multiple and latest devices.

They will be dealing with lots of data (personalised) and would want to make sense of it quickly, and yet concerned about its privacy and security. They will be tech-savvy, younger and delivering aid digitally. Majority of future aid workers are going to be regionalised and localised, and will include non-traditional humanitarian actors (self-organised local community, private sector, military, digital humanitarians, etc). Ultimately, they will be serving a connected population and would require capabilities to interact with the affected population.

The ETC will continue to deliver on its existing mandate to provide services to the humanitarian community, with an expanded remit to cover the entire response community (including non-traditional humanitarian actors). The cluster also will expand its capabilities to deliver easy to use, enhanced (*same or similar to corporate environment*) and secure services to humanitarian responders in multiple and simultaneous large scale emergencies***.

*** *In lieu of revised IASC system-wide planning assumptions, the ET Cluster will target 9x large-scale disasters in a year, 6x of which take place simultaneously*

1.2. Goal and Objectives

The goal of the ETC would be to digitally **transform** delivery of humanitarian aid by **enabling** the humanitarian response community with **enhanced communications** tools and capabilities.

Key objectives:

- Support the response community communicate and coordinate aid efforts.
- Enable response community deliver aid digitally.

1.3. Value Proposition

For all humanitarian actors needing to communicate with each other, and with affected populations, we take responsibility to ensure a dedicated and principled communications platform, and coordination forum, by brokering or directly providing enhanced connectivity and services through our membership and extended partnership network.

1.4. Focus Areas

- ***Response Community Communication***: Provision communications tools and capabilities (includes power) to allow the response community communicate (with each other, with affected communities and with governments) and hence effectively coordinate aid delivery.
- ***Enabling Digital Aid***: Through the ETC partnership ecosystem, enable the response community deliver aid digitally.

1.5. Major Deliverables

- ***Service demand management***: Capacity mapping of response community, especially in high risk countries, to get insights into existing capabilities and determine potential needs/requirements in emergencies.
- ***Revised catalogue of services***: Review existing services and ensure enhanced services are delivered to future aid workers.
- ***Dedicated innovation team***: Setup and fund an inter-agency innovation team that influences adoption and piloting of new tools and technologies to better serve the response community and drive digital aid delivery.
- ***Service delivery model***: A federated/localised partnership delivery model where the response community and other actors (e.g. private sector, academia) commit to deliver and sustain ETC services within their environment.
- ***ETC awareness***: Raise awareness within the response community about the ETC and services offered, while also managing expectations.

1.6. Quick Wins / Pilots

- ETC training module that can be incorporated in agency learning management systems. To educate the response community on expectations and requirements to access ETC services in the field.
- Roster of ICT experts in select services (digital aid, alternative energy, telecommunications) that is accessible to humanitarian agencies.

2. Services to Affected Populations

2.1. Scope

What Does Services to Affected Populations Mean?

The ETC will work closely with partners to provide emergency services, which align to the use of technology and communications to impact affected populations. These services will allow individuals to access digital aid, such as e-vouchers, communications (which will be two way), and facilitate the foundations for reuniting families. We will not interfere with local service providers and only provide services that are limited in nature to provide a bridge until local operators have re-established their services. Where possible, our services will be two way allowing for the broadcast of critical information from humanitarian responders, and allowing for the communities to share their feedback with humanitarian responders. It is critical that these services are needs based, and only commissioned once a clear assessment is done. This means that needs assessments will need to consider communications of affected populations as an element during any information gathering exercise.

Who Are The Targeted Populations?

The target for our response will fall into two categories during a rapid onset disaster. First based on an overall needs assessment we will position our services for blanket distribution in a geographical area. Once we are able to determine the most highly impacted and vulnerable communities, our focus can then shift to a targeted service. Our response will differ based on the needs of those who were previously connected and those who were never connected. The density of the population is important since we cannot deliver services to geographically dispersed populations. The service will be therefore be location and time limited.

What Services Will Be Delivered?

Our services will be based on the needs of the population and could include a combination of the following:

- Backhaul for digital aid (cash and vouchers).
- Allowing disaster affected populations to make a voice call.
- Internet cafes for long term support.
- Charging Stations for mobile devices.
- Assisting with broadcasting support (both over IP and traditional broadcast).
- Supporting data collection (i.e. Ebola patient tracking, feedback mechanisms etc).
- Power (for solutions we deploy).

These services need to be defined in a service catalogue (which will depend on the context of the disaster) and will need to be appropriately supported. Emphasis will be placed on well-coordinated, common service communications and tools where possible. In order to provide ongoing evaluation of the services being delivered, a feedback mechanism should be incorporated.

Who Will Deliver These Services?

Services will be delivered through partners (both within the ETC and external to the ETC), NGOs, governments and local providers.

Venturing into this space will involve a shift in the ETC to encompass non-technical elements, such as local negotiation, partner management, new forms of data management (limited to support the cluster), and much more of a co-ordination role among more disparate actors.

It was recognised that a **Provider of Last Resort** (PoLR) for the cluster lead agency does carry a heavy responsibility, and hence care must be taken in defining any commitments for minimum service levels the cluster should deliver to affected populations. Nevertheless, if the cluster was to commit to minimum services, this should include mostly technical infrastructure components e.g. telecommunication centre (internet, voice calls, charging), and modular charging stations for affected population devices.

How Do We Define the Challenge?

The expansion of the remit of the ETC to working directly with disaster affected populations means that the ETC will need to overcome a number of significant challenges. These include:

- The desire to move to working directly with disaster affected populations will mean a change in the mandate of the cluster. In order to be effective in this role, the ETC will be required to partake communication and advocacy messaging to the humanitarian community (including clusters, humanitarian agencies, donors and governments) on the new services it will provide.
- There will be many more users and the ETC will need to cover a greater geographical area of service.
- The overall capacity of the ETC will need to expand, both in terms of technical skills, but also the need to work with new kinds of equipment. How does ETC maintain services level with this large new mandate?
- Working to provide/co-ordinate end user services will open up a host of both regulatory issue and legal issues that will need to be addressed.

- In order to provide these services, new sources of funding will need to be obtained. This could be partially met by having the ETC request for funding be included in existing appeals (such as ones already made during a disaster response by WFP).
- Delivering a new set of services will require the ETC to work with specialized partners, some of who should be encouraged to join the ETC, while others will work as external partners (see the partnerships work stream).
- The ETC will be required to work closely with other humanitarian actors to ensure an effective prioritization of services.
- We need to consider energy and how (and to whom) we provide energy, for what devices, for how long. We need to co-ordinate our work in this area with that of other work streams (at the strategic level) and other clusters (at the implementation level).
- We still need to define what being the provider of last resort means with respect to disaster affected populations? What are components that need to be delivered and is it the role of the ETC to step in when local providers and partners are unable to deliver? Does the ETC need to be able to maintain capabilities to directly provide services as the provider of last resort (charging stations, internet cafes)?
- Disaster preparedness is key in creating an effective disaster response. However, getting a standard level of preparedness and resilience will be a challenge across various partners (such as MNOs) and the ETC needs to define a clear strategy around preparedness.
- For this work to be successful, it is important that ETC is recognized amongst the various actors for its co-ordination role.

Fundamentally, the move to working with disaster affected populations will result in a large culture shift in the ETC. The work of moving beyond support for humanitarian responders will challenge all of the core premises that the ETC is based on and require the cluster to work at a scale and in new methods which it has never done so before.

How Do We Define the Role of the ETC?

In order to be successful in this new role of working with disaster affected populations, the ETC should have a clear role definition. The following points were made to help formulate the recommendation:

- The ETC needs to clearly define a service catalogue which will be based on an expansion of the services in the existing catalogue. Once we have a defined group of services, we will need to establish a new support structure for these additional services.
- During a response, the ETC should have a formal process that after appropriate assesses, services would be activated thorough a formal mechanism much like the cluster works today.
- Partnerships will be key to delivering end services. This would mean that the ETC needs to:
    - Develop new partnerships. This will include both partners who provide services, partners who implemented, and partners who are advisors.
    - The ETC will be responsible for working very closely with partners to facilitate delivery or services, and providing a coordination service amongst complimentary and disparate partners. This could potentially be through a (sub) working group/ committee of ETC that includes technical specialists on communications with communities from humanitarian agencies.
    - Donors should also been seen as partners since both cash and gifts in kind will be required to deliver these services and some partners may donate a mixture of both. There is an overall need for the ETC to strength it's partnership team (see partnerships work stream) and embed the right partnership skills in staff.
- There is need for a defined feedback loop to be used during a response which would be used to capture learnings and improve services. This should involve not just the ETC, the humanitarian community, and the partners, but also the core communities who were the recipients of the service.
- This shift will require a need to redefine the roles and responsibilities of ETC members. This would change based on the scale, geography and nature of the response.
- In order to meet this new challenge, there is a need to both scale up the work and to reskill the existing ETC workforce; this will involve going beyond technical equipment setup to understanding programmatic needs.
- The need to build resilience amongst existing providers will be key and will reduce the need for the ETC to actively provide services in a disaster. This means that we need to work with others to build resilience, especially amongst the MNOs. We suggest a focus on the top 20 disaster prone countries in order to make our efforts both affordable and impactful.

- Going beyond just working with partners, the ETC needs to take on an active co-ordination role with respect to both the channels and the infrastructure during a disaster, and assist (with the support of others) in their co-ordinating the content to disaster affected populations.
- There exists a need for training of existing humanitarians (see humanitarian services work stream, and then provide additional training amongst partners and MNOs as we expand into this area.
- It is important that co-ordination needs to occur before a disaster rather than during the response. This would involve bringing partners on board in advance, and ensuring our lexicon is understood (amongst non-ETC members) and consistent.
- There is a need for a manual and a mapping of what is available and what is possible in a particular disaster context. This may involve supplementing the service catalogue to be context specific, and writing its outputs in terms that would be understood by the various end users.
- It has been suggested that for the delivery of information, the restoration of existing broadcast networks could provide vehicles for information dissemination quickly and at low cost. This would mean that the knowledge/skills/available equipment provided by the ETC would need to expand into broadcast media (radio/TV).

There is a recognition that the "ETC" comprises three key definitions, and each could play a different role in service delivery or facilitation of the same:

- Cluster lead agency (WFP): facilitation of the ETC's network work, provider of last resort (for defined and pre-agreed minimum services)
- Cluster cell: coordination, brokerage and facilitation roles
- Cluster network (members, observers & partners): direct service provision (depending on mandate), facilitation and brokerage roles

Bridging role? While the ETC network makes every to build local resilience in high risk countries, there might still be a need for the ETC to bridge service delivery before the MNOs and local providers restore their systems. Bridging roles explored included: supporting local broadcasters to get them running; support to MNOs providing direct support to affected populations; provision of equipment (e.g. generator); support to local communities call centres, charging stations; coordination of communications with/for communities infrastructure.

There is a concern that support local commercial providers does raise fundamental questions – (i)as they are profit making, what do they give in return for the affected populations; (ii) whom do we choose to support – requires a transparent criteria

What Are the Barriers to Success?

When considering this expansion of the remit of the ETC, a number of barriers become evident (some previously mentioned but repeated here for clarity):

- The ETC already has existing resource constraints and we have finite resources. We need a holistic plan that looks at how we expand both our human and material resources in a cost effective manner that can be activated in a response. In addition, more resources need to be focused on ongoing preparation and resilience and this can also be achieved through working with existing (and new) partners.
- We would need to manage the realistic expectations on exactly what the ETC can deliver, to whom and where. We risk setting unrealistic expectations if we are unclear on our mandate and in doing so would create tension amongst our members, partners, governments and the affected communities.
- We need to be aware of potential competition with the local providers of the existing services. In a rapid onset disaster our role is to bridge and help restore these services as quickly as possible and then exit the operation. In a slow onset/long term disasters, our role ideally would be to co-ordinate the local partners and supplement where required.
- There are likely to be government restrictions that will impact the provision of services to end users (community members).
- The ETC (as would any other agency) will have capacity limitations especially in the areas of energy and bandwidth.
- It is important that we have the right people around the table (both in terms of preparation and during the disaster).
- We may have a challenge in supporting all the partners in a particular disaster that may be present, and this means that we need to determine how we co-ordinate amongst multiple partners (especially if one is government owned) and assess the challenges which this creates. We need to determine if we should support one partner exclusively (with focused energy and resources), or should we spread services amongst all partners. Overall we should strive to provide the best service possible.

Who Are the Other Actors?

Finally it is important that we understand who the other actors that provide services to affected communities are, and who ETC must co-ordinate its efforts with:

- The ETC will need closer co-ordination with its own members who may already be delivering these services.
- UN-OCHA already receive a service from the ETC and own important aspects in a disaster such as information management. This means we may need to work with OCHA to determine clear roles between the agency and the cluster.
- Existing local/national operators, NGOs (local, international), UN-HCR, and existing broadcasters will need to see a value proposition of why receiving a service provided by the ETC will make a difference in the response. In return the ETC should insist on getting the recognition and visibility that they are key to making this difference.
- As previously mentioned, local service providers will need to be worked with very closely since they are they to provide medium and long term services to the disaster affected populations.
- The disaster affected population (for example community mobilizers) are likely to be making their best efforts in a disaster to restore community communications.
- Other clusters in the cluster system (for example, logs, food, shelter) will have needs that impact directly on the disaster affected populations.
- Formal networks will be key partners such as: GSMA, CDAC Network, Global VSAT forum
- National governmental agencies (disaster management, telecoms, etc.) will all need to be considered in our co-ordination.

For the implementation, it is important that we clearly define how ETC will engage these actors, as we want to leverage their mandate, expertise and experience. An open question remains on how we incentivise co-operation with non-ETC members who are already operating in this space. It is suggested that coming out of the overall strategy a core set of marketing materials which speaks to the different targets is required.

2.2. Goal and Objectives

The goal of the ETC is to enable disaster affected communities communicate, access information, provide feedback and access aid.

Objectives include:

- Facilitate restoration of commercial communication and power services for the benefit of disaster affected communities.
- Enable disaster affected communities, through partnership ecosystem, access digital aid.
- Advocate for communication as aid.

2.3. Value Proposition

For disaster affected populations needing to communicate with each other, with humanitarians, or with government or commercial services, we ensure/enable a dedicated and principled communications solution, by brokering accredited connectivity and services through our extended partnership network. For the direct humanitarian benefit of crisis affected populations, we facilitate principled restoration or extension of commercial communications service capabilities by brokering accredited and prioritized policy, regulatory, and partnership attention to communication as aid.

2.4. Focus Areas

- **Infrastructure Coordination**: Coordination, facilitation and advocacy with local carriers/MNOs to ensure infrastructure stability and provision in energy and power to make that infrastructure useful.
- **Advocacy**: Affordable access for affected populations (devices + service/technology)
- **Advisory**: Technology advisor - providing technical expertise, training and assistance to implementing agencies
- **CwC Partnerships**: Forging partnerships (with organisations keen on connectivity and communications for the masses)

2.5. Major Deliverables

- **CwC team**: Establish inter-agency CwC team (includes OCHA, CDAC Network, GSMA, TSF, others) and enhance existing capacity of the cluster cell to include CwC expertise (quick win?)

- **Capacity mapping**: Undertake capacity mapping of CwC capabilities in (20?) high risk countries, identify gaps and strategise on mitigation measures (better resilience, additional support, etc)
- **Partnerships in high risk countries**: Develop accredited and committed partnerships in (20?) high risk countries to deliver services to affected populations (prioritizing MNOs, broadcasters, gov't, NGOs…)
- **Technical solutions**: Develop technical solutions that enable ETC meet its PoLR responsibilities (e.g. portable telecommunication centre, charging stations)

2.6. Quick Wins / Pilots

- Establish CwC expertise in the Global ETC Support Cell.

3. Working with Governments to Build Resilience

3.0. Scope

Work with governments to enable them building national communication resilience and ensure restoration of essential communications channels after a disaster, that will enable governments in disaster affected countries to communicate.

Using the United Nations Office for Disaster Risk Reduction (UNISDR) definition of resilience:

("The ability of a system, community or society exposed to hazards to resist, absorb, accommodate to and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions") as a reference point, the group is streamlining this definition to tackle resilience of national communications systems and to consider how future ETC responses could be better enabled, if needed.

3.2. Goal and Objectives

Identify, prioritize, contact, engage and enable/empower governments to build greater resilience prior to future disasters and to work more efficiently with the Cluster, so that the ETC's resources can be better leveraged and utilized.

3.3. Value Proposition

For government entities active in emergencies needing to communicate internally, with humanitarian actors, or with crisis affected populations, the ETC has the expertise, ability and network of partners to help prepare governments to build greater communications resilience and to partner with the ETC, if needed, to enable essential communications channels to be maintained or restored within 48 hours.

3.4. Focus Areas

People: To build enhanced capacity, the ETC will convene the contacts, resources, and partners necessary to form relationships with priority governments, build communications network and response resilience and enable governments to work with the Cluster if needed.

- Identify priority contacts, approach, and engage. This depend on ETC partners presence at national level, and requires to provide them with the capacity to represent the ETC. To answer "How will they know the ETC and what it can do? Need clarity on who represents the Cluster?" Clarify within the ETC not only who will represent the ETC, but how.

Policies / Regulations (including Advocacy): To define its working relationships with governments, the ETC will acquire an understanding of country policies and regulations that enhance resilience, and determine its policies and communicate the ETC's expectations for governments to work with the ETC (to include how we can work, what we can provide, manage expectations). To understand the current policy landscape for communications resilience and response and how to improve it, the ETC will gather information on current national and multilateral policies, instruments and regulations that 1) enhance communications network and response resilience, (to also include multilateral instruments such as humanitarian frequencies and the Tampere convention)and 2) enable ETC deployment if needed (including access, importation, frequency approvals), compiling or building international best practices to be shared widely.

- Map current government + humanitarian preparedness plans – Policies instruments and regulations, practices, equipment, personnel
- Identify gaps where ETC and partners could bring expertise.
- Review Tampere convention (will preparedness group do this?)
- After reviewing multiple countries, build best practices examples that can enhance resilience to be shared with governments.

Resilience Activities: The ETC and its partners will work with governments to assess communications network and response resilience status and needs, then help develop capacity where needed, compiling existing efforts and building Tools (which could include a Menu of Services, Best practices, SOP's, Training, Capacity Building exercises) that can address the range of communications network and response resilience needs.

- Form a WG to identify most at risk countries, Compile information on existing capacity building efforts to build resilience expertise, (including who does what, how they do it and where they do it), identify gaps, and consider how it would be deployed –
- Mapping the government capabilities funding - need to do an early test of donor / investment interest and possibilities

Knowledge Management: To build on and leverage expertise, the Cluster will identify, compile, develop and maintain key contacts, existing efforts, lessons learned, relevant policies, tools, and best practices that will be accessible and shared widely.

- Form a WG, Build a structure to keep information. Leverage existing information, scale up and ensure that information is verified.,
- Define scope of information (best practices, LLs, …) and build platform, and develop / pilot KM model for 2 working countries;
- Issues of cost/resources/ maintenance, source and Use 'federated data' (what does that mean?)

3.5. Major Deliverables

- **COUNTRY PROFILES, CONTACTS** : Defined up to date contacts, have relationships and profiles for disaster/conflict prone countries with the following information (when applicable):
    - ETC partners presence and contacts
    - ETC focal point
    - government policies and regulations
    - local communication providers
    - Government capabilities
    - Contingency plan
    - Question: Can 25 high risk countries be done? Definitely must prioritize the first countries as most vulnerable. It is important to consider whether 25 countries is a realistic number.

- **RELATIONSHIPS**: Established contact / engagement between government and the ETC for the prone disaster/conflict countries
- **REPOSITORY OF RESILIENCE ACTIVITIES**: (Best Efforts This will go beyond high risk countries, gather information on current efforts and who does what, identify gaps to develop a range of practices. This must recognize existing efforts: (for example, digital humanitarian communities arranged in different databases)
- **RESILIENCE FRAMEWORK**: Roll out a resilience framework –(scope to be defined) to engage with identified governments countries including, to study current rules/regulations that enable resilience, identify gaps, build best practices, help a government build a contingency plan, and provide ongoing training, maintenance and simulation, as well as prepositioning of equipment as required. (question: what is added value, what can be done, funding)
    - ETC provides the expertise and support but countries must agree to lead the process.
    - Must define ETC support to governments to build resilience, starting with currently known/available efforts to a final product.
    - Develop ICT4Gov training (tailor solutions or governments, give input or curriculum or current ICT4G training.
    - Could be a deliverable once a government has identified and work done to ensure that a government can build and maintain resilience.
    - This includes ongoing training and maintenance.
    - Show added value: engage with governments. We bring expertise, knowledge or contacts. Define few key things

3.6. Quick Wins

- Prioritize Countries: Identify vulnerable countries that have experienced natural disasters and are willing to build their capacity and response readiness (deleted as not being a "Quick win")
    - Identify countries and the types of government contacts ETC members have contacts and relationships with:
    - Examples include Communications Authorities/Regulator/NDMO/Foreign Ministry/Customs/Interior Ministry/CIO/Military)
- Draft a "Code of Conduct" for how Countries can work more effectively with the ETC, and the ETC's expectations for working with Governments.
    - Takes existing codes of conduct (UN, GSMA humanitarian connectivity charter, etc.) into account

    - Outlines the commitments governments should make to work effectively with the ETC.
    - Provides rules of the road, including: Government will do its own plan, outline commitments Governments must make, including resources, personnel, rules
    - For example, the GSMA humanitarian connectivity charter is aimed at global standard for the mobile industry - signatory MNOS join the charter. Outlines the role and the priorities for mobile operators to play and respond to disaster, and can be a good starting point.
- Draft an "elevator pitch" and/or outreach flyer ETC members can use to communicate how the ETC can assist governments in crisis and with building resilience.
    - This can form the basis of a strong ETC communication package. For example, The ETC workshop in Kathmandu with operators, regulator and the government will do a similar session on what the ETC is and how to engage, providing advance material.
- Design training for ETC members on how to engage with governments and represent the ETC.
    - Possibly an online course for partners in support of operations, quick training on how to engage with governments. Can apply to multiple audiences.

3.7 Pilots

- Form Resilience WG to identify the role of the ETC: Compile a listing of resilience activities the ETC, its colleagues, partners and its members have expertise
- Identify 3 countries where ETC has presence established and / or operation and:
    - Compile information about the country contacts and policies
    - Engage with government and its national communication providers
    - Identify gaps where ETC could support by providing expertise: contingency plan, building capacity, ICT services in emergency
    - Advocate about the ETC, its role, its network of organizations and expertise, its services and what can be (or not) expected in terms of preparedness and response in case of emergency
    - Start a KM Working Group Identify platform (wiki) to support country information country profiles and use as a central repository of information on national communication resilience: Have partners put their existing contacts into the wiki
    - Build out a wiki - country profiles and use as a central repository of information on national communication resilience: ETC Website - leveraging existing information

Risks:

- Not a priority for governments
- Changing governments and contacts
- Unclear or unrealistic Expectations
- Increased dependency
- Assertion of control over ETC deployments

Challenges:

- long term relationship and up to date information (ownership of data and source)
- responsibility of who engage with government
- high dependency on willingness from government (we can't do anything if they don't want - what are our expectations)
- funding

Mitigation Strategy:

- Clearly spelled out expectations for governments to work with ETC
- ETC clearly articulates its "elevator pitch" of what it can do
- Interactions with governments follow Humanitarian principles

4. Enhanced Connectivity

4.1. Scope

In a rapidly and constantly evolving environment where the ETC is supporting new types of humanitarian response challenges, appropriate solutions and secure capacities will enable an enhanced communications experience for the Response Community. From preparedness, throughout the response phase, until the re-establishment of normal services, the ETC will work together with government and local operators. Enhanced Connectivity should include improvements with existing solutions, as well as faster, more agile and easy to scale advanced services provided by ETC network, leading edge private sector technology partners and local providers.

4.2. Goal and Objectives

Based on criteria and requirements provided by the end-users (Response Community, Government, Affected Population), technical solutions and services will be listed under the revamped service catalogue. This service catalogue will help proactively identify members and partners who will be in charge of the provisioning, prepositioning, deployment and support of the various technical solutions.

Objectives include:

- for the Response Community: same or similar level of connectivity and communication experience on an acceptable basic service levels similar to most office environments after 24 hours post activation to support the coordination and the delivery of digital aid
- for Government: in-advance agreed (in high risk countries) [BC1] essential communication solutions that will enable them to communicate internally within 48 hours, as well as with humanitarian actors and with crisis affected populations
- for Affected Population: regardless of the existence of previous connectivity, communication capabilities will be provided to the affected populations. This will include targeted services that will enable the highly impacted and vulnerable communities to communicate with each other (family reunification), receive information broadcasts by local responders in order to access aid, and finally, enable the opportunity to provide feedback on the services they receive.

4.3. Value Proposition

The change in scope (more and different users, various type of response scenarios, etc) invites the ecosystem around the ETC to evolve and scale its services by leveraging technologies provided by industry players, partners and members together, delivering as one. This enhanced connectivity would include a faster, more agile and easy to scale approach in order to provide clarity, increase efficiency, and insure the agreement among partners on what needs to be deployed where and for whom.

4.4. Focus Areas

Demand Management: The definition of the scale of response is key to its success. Scope includes cost, Bandwidth and Power requirements and scenario development (cf. Enhanced Connectivity Scope)

Technology: With a clear scope defined, the technology can then be easy and quickly identify. And the response will come with greater bandwidth and power supply, "Plug and Play" model, interoperability and innovation

If we consider the parts of the world where the ETC is likely to deploy services in the future, to a great extent we can safely say that the requirements can be fulfilled by what technology exists today. However, we need to be on top of the evolution of these technologies, along with new standards and pilot projects. The next step is to evaluate specific technology solutions that fit our needs, and ensure all of the partners understand the baseline requirements for interoperability. In the end all solutions need to be simple and scalable.

The ETC needs to provide requirements for existing and new technology, along with standards and interoperability testing. A dedicated innovation team will make sure emerging technologies get reviewed and evaluated (pilots, technical experimentations) but more importantly if they fit our purpose get through the pipe and prioritized with the relevant partners as quickly as possible before they hit the field. The interoperability and scalability between the different solutions will be the two key requirements (cf. Humanitarian Communities majors deliverables)

Management: with a great number of users, the management of the network as well as customers is a key priority. Security and InfoSec, Efficient Usage of bandwidth and power will prevent Network issues or complicated experience for users on their devices.

Many agree that the technology we have in 2015 is likely sufficient to provide essential services in 2020. However, to improve connectivity we need to make more efficient use of existing technology, power and bandwidth. The main focus of discussions were around QoS, traffic management, bandwidth management, access network management, and user management. All of these areas can be further

developed and easily moved forward as the technology already exists (cf. Enhanced Connectivity Quick Wins)

4.5. Major Deliverables

- Response Community

By 2020, the solutions and services delivered to support the Response Community (Humanitarian community plus nontraditional actors) will consist of:

  - Secure Network (protection of Data transmitted including Voice services)
  - Emergency Communications equipment
  - Power to supply technologies deployed
  - Improved capacity (SLAs, bandwidth)
  - Humanitarian emergency technology coordination services (location services, tracker, sensors, VoIP apps)

- Government

By 2020, the solutions and services delivered to support government will consist on:

  - Standalone Emergency Communication equipment (with power)
  - Technology Capacity Building (proactive improvement of existing local services by ETC partners)

- Affected Population

By 2020, our various services would primarily be delivered to affected populations through partners[BC6] [BA7] (local or global) and will be based on the needs of the population and could include a combination of the following:

  - Backhaul for digital aid (cash and vouchers).
  - Allowing disaster affected populations to make a voice call (ie phone booth)
  - Internet cafes as a targeted (mid-long term)
  - Charging Stations for mobile devices.
  - Assisting with broadcasting support (both over IP and traditional broadcast).
  - Supporting data collection (i.e. Ebola patient tracking, feedback mechanisms etc).

4.6. Quick Wins / Pilots

Future network design [BC8] capabilities should include the following minimum capabilities:

Secure network management: Absolutely NO use of telnet, rlogin, HTTP (plain) or any other insecure method should be used to operate and manage any connectivity deployed in a humanitarian crisis. Protocols used for such purposes should be well-vetted using trusted cryptographic algorithms and methods that are periodically reviewed to ensure they're up to date.[BC9] [BA10]

Quality of Service[BC11] : The networks and other infrastructure should be able to identify and prioritize network traffic based on QoS. Voice, video and other timing and delay-sensitive content should be able to get prioritized above general internet traffic that is delay sensitive. The motivation is that the network can prioritize traffic it can ensure better quality at lower bandwidth (which should reduce the cost of operations).

Traffic shaping: The ability to whitelist/blacklist hosts or services to a certain percentage or maximum throughput of the overall link. This can prevent high bandwidth applications from hogging the entire pipe (e.g. Windows Updates, BitTorrent, YouTube etc), problematic users from displacing other users, etc. Priority users or groups of users can be given greater access to bandwidth, while ensuring that they always have solid performance of connectivity. The reason is that inefficient use of bandwidth costs money, and undifferentiated networks can cause headaches for users when one user or application misbehaves. An added potential benefit of traffic shaping is CwC or morale networks, where mission-critical traffic always gets priority access to the network resources, but one can open up a morale network for off-duty humanitarians, or for the local community while still ensuring that this sort of open network access does not swamp or otherwise interfere with the mission network.

Other Pilots to address Risks

MDM - Mobile Device Management - Every humanitarian emergency and crisis going forward will have humanitarians responding with a combination of official and unofficial devices ("Bring Your Own Device"). Some of these devices will have an effective host security policy in place, but many will not. Mobile Device Management [BC12] [BA13] is an area where end devices (laptops, phones, tablets etc) are required by the network to meet certain security policies and the ability to be audited before being able to join the network.

Internet of Things (IoT) - ETC should expect that future humanitarian responses will have various machine-to-machine and other network needs.

How do we accommodate the coming explosion of devices and things on the networks - you can easily see where tents, or supplies, or other "stuff" will have an IP address and require access to the network. How do we accommodate IoT in the humanitarian context?

5. Response Readiness

5.1. Scope

Response Readiness is a state in which the ETC has the necessary:

- Human capacity pool trained, exercised & rostered;
- Technical solutions developed, tested, prepositioned & managed;
- Relationships & agreements established, fostered & maintained;
- Funds sourced & reserved

to ensure delivery of a predictable & effective communications experience to humanitarian, government & affected communities in emergencies.

5.2. Goal and Objectives

Goal:

- Between now and 2020, the ETC network will strive to enhance its level of response readiness, adapting its preparedness capacities according to the communications needs and technical solutions of the response community, governments and affected populations.

Objectives:

- Augment the ETC's capacities in people, technical solutions and means to stay aligned with growing humanitarian needs.
- Improve the predictability, interoperability and coherence of the ETC's response in emergencies.
- Raise the level of preparedness and the response capacity at local and regional levels to be able to progressively transfer back to them the responsibility of emergency telecommunications.

5.3. Value Proposition

By 2020, the ETC network* will prepare the human capacity, technical solutions, partnerships, procedures & funds to initiate a coordinated response to multiple large-scale emergencies** - within 24 hours from an official request - to provide predictable & effective communications services to the humanitarian community, & to facilitate communication services to affected governments & populations.

** Local, Regional & Global*

*** In lieu of revised IASC system-wide planning assumptions, the ETC will plan for nine large-scale disasters in a year, six of which occur simultaneously.*

5.4. Focus Areas

<u>People:</u>

- The ETC will see development of a unified roster of trained and exercised ICT responders across the network, especially in high-risk countries, and definition of a

mechanism to efficiently and effectively mobilise them within 24 hours of an official request.

Technical Solutions:

- Leveraging expertise within the network, the ETC will facilitate compatibility of technologies and solutions deployed in emergencies, and ensure necessary tracking management and prepositioning of equipment.

Method/ Means:

- The ETC will build relationships, establish agreements and develop plans to facilitate provision of predictable and effective communications services to the response community, and to facilitate communication services to affected governments and populations.

5.5. Major Deliverables

PEOPLE

Global Inter-Agency Roster

The ETC will develop a global inter-agency roster of trained, verified and exercised personnel across the network who can be called upon to respond in emergencies. The roster will allow the ETC to maintain an overview of human capacity that exists within the network, enabling more predictable and faster disaster response.

The roster will encompass current profiles (e.g. VSAT Specialists) and will be able to expand to include ETC2020 profiles (e.g. Government Relationships Officer). Opportunities for remote technical support and backstopping tasks that can be outsourced from the field will also be included.

In addition to established global stand-by partners, the roster will focus on incorporating capacity at regional and local levels, across humanitarian, government and private sectors, with a particular focus on 20x high-risk countries.

It is also intended that the roster would allow the ETC to better track skills and identify knowledge gaps within the ETC network, for additional capacity building.

QUICK-WIN/ PILOT:

- Develop a pilot roster, learning from ETC member organisations that already own and manage extensive rosters, that includes current profiles, contacts, deploying organisations and training received so far.

Capacity-Building

By 2020, the ETC will significantly expand its capacity building efforts to develop response resources at global as well as regional and local levels, with particular focus on high-risk countries. Personnel trained will include the entire response community, progressively developing humanitarians, government and private sector, and ultimately facilitating coordination between them in emergencies.

Established training modules and materials will be made more accessible to the wider ETC network through interactive online courses allowing those in high-risk countries and field locations to undertake e-learning activities. Common themes will be incorporated into individual organisations' individual courses allowing them to become 'ETC fit for purpose'.

The ETC will formalise courses, leverage Training of Trainers methodology and establish ETC certification.

QUICK-WINS:

- Develop mechanism to allow more participants to undertake established ETC courses and exercises e.g. Let's Net, Let's Comm Digital
- Build elements from established ETC training into existing courses within the network.

PILOT:

- Develop and deliver ETC training course adapted for high-risk country.

TECHNICAL SOLUTIONS

Centralised Equipment Tracking System

To manage the equipment required to deliver ETC2020 services to the response and affected communities, the ETC will develop a global centralised equipment tracking system. The system will include ICT equipment available within the ETC network for possible immediate deployment to emergencies.

The system will include prepositioning of equipment in global, regional and local hubs, including UNHRDs.

QUICK-WINS:

- Build global overview of what equipment/ solutions (including spare parts) ETC members have, and are willing to declare, as available to the ETC for deployment.

PILOTS:

- Expand tracking system to include equipment prepositioned by ETC member organisations within suppliers i.e. virtual stock.

Multi-Stakeholder Response Mechanism

The ETC will establish a cohesive multi-stakeholder response mechanism for the ETC2020 range of services. Spanning defined service catalogue, service-provider accreditation, and shared Standard Operating Procedures (SOPs), the system will ensure coherence and consistency in the ETC response.

Equipment and services deployed as part of the ETC response will be compatible, interoperable, portable and energy-efficient.

ETC technical solutions will be tested and exercised at local-level 'Connectivity-fest' type events. Equipment and services will be deployed and trialled in simulated emergencies, but real environments, especially in high-risk countries.

QUICK-WINS:

- Revise ETC service catalogue, based on current services, to include minimum service level recommendations.

PILOTS:

- Conduct emergency simulation exercise with compatible and interoperable services, and accredited service providers, in high risk country (the same as in which the pilot training was delivered).

METHOD/ MEANS

Local-Level Partnerships

By 2020, the ETC network will extend across global, regional and especially local levels, readying all organisations for emergency response. Partnerships founded at the global level with INGOs will be fostered to establish real commitment for collaboration at the local level. Efforts will be made to collaborate with national Red Cross societies, local NGOs as well as private sector organisations and governments in high risk countries to prepare for emergencies.

Local ETC and ICT Working groups will be federated and individuals – from any ETC member organisation – will be at least partly officially committed to inter-agency activities.

QUICK-WINS:

- Establish list of local contacts eligible to be ETC focal points in high-risk countries, including Red Cross/ Crescent.

PILOTS:

- Expand list of local focal points to include private sector and government bodies.
- Establish system to join existing local ETC and ICT Working Groups.

Advance-Funding

- To meet the funding needs of the ETC2020 services, the ETC will secure advance funding mechanism to facilitate immediate first response in the aftermath of large-scale emergencies.
- A mechanism to quickly release the funds for use by the nominated local lead will need to be established.

6. Partnerships

6.0. Scope

The new IT humanitarian landscape in a 2020 operational environment demands the ETC calibrate its approach against a context of increasing complexity and capacity. Taking into account the outcomes of the ETC2020 strategy discussions, it is clear the overall dependency on the ET Cluster's member network and partner ecosystem will dramatically increase in the next five years in order to implement and bring to fruition targeted technologies, solutions and services to the IT emergency and response community. This new landscape requires the ETC to reposition its new role, value, and relevance at global, regional and local levels by leveraging partnerships and relationships with technology and energy focused private industry, Governments, Mobile Network Operators (MNOs), NGOs, National Disaster Management Authorities (NDMAs), humanitarians and communities at large.

6.1. Goal and Objectives

The ETC aims to increase the effectiveness of member and partnership activities by leveraging and cascading opportunities with technology private sector companies, Governments, MNOs, NDMAs and others as needed, from a global to the regional and country levels, in order to help facilitate the delivery of solutions and services in a digitized humanitarian aid environment.

The overall objectives is to augment and enhance resources that entail the following:

1. funding;
2. in-kind expertise / equipment / etc.;
3. human resources;
4. others as needed.

6.2. Value Proposition

By 2020, through constructive and mutually beneficial collaboration with the ETC and its ecosystem, partners have the ability to meet their objectives and effectively channel their efforts which will provide scale, scope, visibility and efficiency based on principles of partnership framework.

6.3. Focus Areas

A central element and focus of the Partnerships role in the ETC2020 realm entails relationships that identity and develop strategic opportunities that deliver financial resources, IT innovation, technology capacity and new knowledge and skills that will enhance the end-user experience as well as deliver the services to be implemented in a digitized IT humanitarian emergency operation.

Encompassing the strategic objectives, priorities and outcomes of the five elements of ETC2020: a) Services to Humanitarian Community; b) Services to Affected Populations; c) Working with Governments to build Resilience; d) Enhanced Connectivity; and e) Response Readiness, the ETC will underpin the overall outreach and coordination by implementing specific strategies with members and partners that have global, regional and local representation from a cross section of targets. It will take shape by:

1. Identify members, partners and their respective networks: code of conduct, humanitarian principles, etc.;
2. Build & Develop: trust, mutually beneficial, provision strategic opportunities, commitment & agreement;

3. Delivery: coordinated services and solution platforms per an ETC operational environment.

6.4. Major Deliverables

1. Coordinated partnership framework that consists of various finalised documents like a code of conduct, legal agreements for operations, equipment, stand-by agreements, and others as needed with Governments, MNOs, NDMAs, NGOs and others as needed in 20 high risk countries in order to facilitate the successful delivery of prioritized service (s);
2. To expand as well as shift the ETC's present global representation and management of relationships to regional and localized environments where 2020 operational service requirements can be delivered;

6.5. Quick Wins

1. Mapping, matching and providing a matrix of key members / partners and their network needed for strategic opportunities and specific requirements: who is needed, who is missing for implementation;
2. ETC partnership advocacy materials that can be shared with member network and broader partner constituents in order to pitch and outreach to for potential collaboration.