Nature of the Challenge Part 2: Network Architecture

Slide 1 – no audio

Slide 2
This is to illustrate at a high level the actors and their associated connectivity. They key for us practitioners is to bridge the gap between civil and military authorities in order to improve efficiency and save life, limb, and eyesight then mitigate damage to the infrastructure if possible.

Slide 3
There are many NGOs and IOs that have their own sources, Web pages, and portals that it is difficult to track and leverage. The goal during an operation is to quickly survey who has responded and what their information needs are. From there, coordination and collaboration must occur in order for the information to be shared and put to good use. This collaboration can also reduce redundancy, or several actors trying to obtain the same information. There simply isn't time for that.

Richness in information can also be a curse for those who arrive bandwidth challenged. So techniques must be developed to accommodate these less fortunate responders. For example, a less capable NGO may only be capable of rendering a screen capture of a map. The map may be good enough for their purposes so creating a PDF file of that map dramatically reduces the bandwidth required to e-mail and share it. The same considerations should be given to digital photographs. Digital photography has become a worldwide phenomenon. However, sending all of these disaster photos consumes enormous bandwidth.   Can they be posted somewhere instead of e-mailed?

Slide 4
Posting data to a common site is a much more bandwidth sensitive method of getting the information out to the consumers. Use of common software is helpful too. However, as you become engaged in the operation, you may not have the time to surf the Web until you find what you require. And, you certainly will not have the time to send multiple iterations of the same file to potentially high number of NGOs and IOs that will respond. In your Hastily Formed Network, it will be very beneficial; to have someone deconflict information sharing requirements. Who needs what, where, when and in what format?

Slide 5
This list of ICT can go a long way to mitigating connectivity /interoperability problems.

Slide 6
This very busy chart gives one an indication of what to expect in response to a crisis. The key point of this slide is that connection to the Internet is the most effective way to enable you to become engaged in information sharing with other practitioners.