

IGF 2016 Workshop Report Template

Session Title	Dynamic Coalition on the Internet of Things
Date	6 December 2016
Time	09:45 – 11:15
Session Organizer	Maarten Botterman, Wolfgang Kleinwaechter, Avri Doria, Dan Caprio
Chair/Moderator	Maarten Botterman Chair / Avri Doria Moderator
Rapporteur/Notetaker	Maarten Botterman
List of Speakers and their institutional affiliations	<ol style="list-style-type: none"> 1. Maarten Botterman (ICANN Board; Chairman DC IoT) 2. Wolfgang Kleinwaechter (University of Aarhus) 3. Karen Rose (Information Society) 4. Olga Cavalli (ITU WS20) 5. Jari Arkko (Ericsson, Chair IETF) 6. Vint Cerf (Internet Hall of Fame) 7. Grace Abuhamed (US NTIA) 8. Megan Richards (EU Commission) 9. Max Senges (Google) 10. Joseph Alhadeff (ORACLE, Chair ICC BASIS)
Key Issues raised (1 sentence per issue):	<ul style="list-style-type: none"> ▶ Statement: the “ethical approach” in IoT should find a balance in being “sufficient” from a civil society point of view, and “do-able” from a business point of view, and sustainable from a technical point of view. ▶ <i>Question: do we need A “Principle” on “using the most available technology possible” to stimulate developments to be applicable in more regions around the world?</i> ▶ Statement: there is a high need to raise IoT awareness with citizens and consumers. In this, people should not be expected to be technical experts. ▶ <i>Question: would there be value in having an ontology for IoT applications on: a. Privacy; b. Security; c. Safety?</i> ▶ Statement: Proper security avoiding easy capture of IoT equipment is a necessity. This will need to come with appropriate attribution of responsibility in ensuring this is handled sufficiently.
If there were presentations during the session, please provide a 1-paragraph summary for each Presentation	<p>The Internet of Things is still in early stages, and in many ways new possibilities are developed and discovered beyond our imagination, and we welcome it for its potential to help alleviate specific societal challenges where it can. The Internet of Things has, however, been around long enough to already a history with consequence. We came to understand that the way forward is to be found in taking ethical considerations into account from the outset, both in the development, deployment and use phases of the life cycle, thus to find a sustainable way ahead using IoT helping to create a free, secure and rights enabling environment. Responsibility for ensuring abuse of IoT devices, services and ecosystems should be attributed thus to ensure action will be taken to counter abuse. Aim of the DC IoT is to further zoom in to what “good” looks like from a global multistakeholder perspective, and how sustainable development of</p>

	IoT that is trusted, useable, accessible, affordable and profitable (in societal and/or business sense) can take place.
Please describe the Discussions that took place during the workshop session: (3 paragraphs)	<p>More than 80 people gathered in Guadalajara to further the understanding of Global Good Practice from a Multistakeholder Perspective on IoT that has been reflected in a paper by the DC IoT since 2015 and has been furthered during IGF2015, and intersessional during regional IGFs in Europe and North America. Whereas DC IoT in 2008 was well ahead of its time, right now DC IoT is on target. It functions as the only global platform where stakeholders meet to discuss IoT on equal footing.</p> <p>During this session there was a clear emphasis on application in developing countries: more needs to be done. On a basic level these technologies can already bring a lot in areas where it is really needed. Initiatives in capacity building around world are important and impactful. By creating the human capacity to benefit from those technologies close to where they are needed, effective use comes quickly within reach.</p> <p>Questions that will come up in the future merit already some thinking today. And whereas we cannot predict the future, we together can influence how it will unfold. So:</p> <ol style="list-style-type: none"> 1. complexity will continue to go up, and we will need to increasingly use technology to deal with complexity; 2. autonomous IoT ecosystems that base their decisions on machine learning and eventually artificial intelligence need guidance – how do we ensure that those ecosystems continue to serve us even when their intelligence is overtaking ours; 3. data protection and privacy concerns will stay with us. Without that we end up in a world without trust – a world we don't want. We see new business models build on a perception of data ownership being a liability. Wouldn't be great to use data to the good in this world? Let's keep that balance in mind as well. <p>Last but not least is a call for you to get involved in the DC IoT work, also between IGFs. This work is done with volunteers for more than 8 years now, and benefits from good interest and high quality sessions at IGF and in between. The time has come to step up and have additional organizations and sponsorship to come in and get real work done in this same fashion of independent global level multi stakeholder approach. Please reach out to DC IoT if you want to help.</p>
Please describe any Participant suggestions regarding the way forward/ potential next steps /key takeaways: (3 paragraphs)	<p>Key takeaways:</p> <p>1 – Application of IoT in developing countries: it is noted that low bandwidth solutions can already help a lot. Examples in agriculture were given. Shared issues with developed world is intense use of the cities where IoT can help better manage scarcity and ensure safety. (Local) capacity building is important as the best solutions can be found be capable people that are nearest to the issues to be</p>

addressed. Support for capacity building activities such as those from ICTP (*International Centre for Theoretical Physics*) is invited;

2 – Safety in devices is a priority, and should be enabled by suppliers but necessarily include the user taking responsibility. So this should be enabled, and users should be aware how to do it. It was noted that getting users to take their responsibility will take time and awareness raising activities. This calls for a Call of Conduct based on a global understanding) rather than legislation (different per nation state). A consideration from the technical perspective is to agree (i.e. develop an RFC within IETF) on not deploying devices with default passwords;

3 – The aim to further insight in “*Global Good Practice in IoT from a multistakeholder perspective*” is very useful. In order to progress the joint understanding, and make other players in the world more aware requires stepping up the committed efforts to IGF DC IoT. People and organisations are called to step forward and actively contribute to this. Joint development of “balanced briefing papers” can help. Google, ICC Basis, and NTIA have committed to explore ways to step up. IETF has set up a specific focus group on IoT and will continue to contribute actively to the work of the DC. The current leadership in IGF DC IoT is very open towards new committed contributors that are willing to invest time over the year, and is grateful for all the contributions made during the workshops.