GAIA WG: Global Access to the Internet for All

- An IRTF initiative
  "To me, the fundamental outcome of research is understanding, and the fundamental outcome of engineering is a product." - Fred Baker

- Global access: human right

- Need for infrastructure: presence, affordability, sustainability, … the "first mile"

- Huge disparity in access: *one man, one vote*

- Challenges in public policy, regulation, business and participation models, research in social science, economics, technology

Objectives

- to create **increased visibility and interest** among the wider community on the **challenges and opportunities** in enabling global Internet access, in terms of technology as well as the social & economic drivers for its adoption;

- to create a **shared vision** among practitioners, researchers, corporations, non governmental and governmental organisations on the challenges and opportunities;

- to **articulate and foster collaboration** among them to address the diverse Internet access and architectural challenges (including security, privacy, censorship and energy efficiency);

Objectives

- to **document and share deployment experiences and research results** to the wider community through scholarly publications, white papers, presentations, workshops, Informational and Experimental RFCs;

- to **document the costs** of existing Internet Access, the breakdown of those costs (energy, manpower, licenses, bandwidth, infrastructure, transit, peering), and outline a path to a 10x reduction in Internet Access costs especially in geographies and populations with low penetration.

- to develop a longer term perspective on the **impact of** GAIA research group **findings on the standardisation** efforts at the IETF. This could include recommendations to protocol designers and architects.

Outcomes

- Meetings:
  - Sharing info, meet people, discussion, coordination of research initiatives, sharing calls, organization of other events
- Documents:
  - Minutes of meetings, slides
  - Informational documents
  - Best current practices
  - Research papers

So far ...

- Chartered in 2014-10-15

- Several GAIA workshops

    First at IETF 89 London, UCAM, ACM DEV, IETF 93 Prague, … IETF 100, 101, 102

- RFC 7962 (2016)

    - Alternative Network Deployments: Taxonomy, Characterization, Technologies, and Architectures

Ideas, to do next

- Documenting best practices
  - Policy
  - Regulation
  - Business and participation models
  - Research in social science, economics, technology
  - Impact
- Update GAIA Wiki (links)

Upcoming calls

- 14th Asian Internet Engineering Conference (AINTEC), Thailand, 12-14 November 2018, (after IETF 103)

  Abstract: Aug 18, paper Sep 2

- IGF Dynamic Coalition on Community Connectivity (DC3), during IGF 2018, Paris 12-15 November 2018

  Submission: Aug 4

- ...

Towards BCP

- Document critical choices of any kind: organizational and business models, methods, tools that work in context, situations: patterns and anti-patterns, metrics for evaluation

- Diversity is key for universal connectivity: one model cannot fulfil all needs *(commons, market, WISPs, community networks, GSM, WiFi …)* and things come in "bundles"

- Knowledge is key: BCP *(learn from …)*