Where the accessibility of “ports-of-entry” to cloud services can make the difference between *life and death…*

By:

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From my Perspective

My thoughts on cloud accessibility…

- Clouds are neither accessible nor inaccessible.
- Clouds represent “resources in the sky” that process and carry information.
- If you want to maximize the use of cloud resources, the “ports-of-entry” to those resources need to be accessible, usable and useful to anyone, from anywhere at anytime.
- The “ports-of-entry” are represented by mobile devices, fully-accessible browsers, and applications that have the ability to render information in based upon each individual users’ wants, needs and preferences.
- From my perspective we no longer serve one market of billions of customers, we serve a billion markets of one customer each.

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Mobile Cellular Subscriptions, per 100 People, in the 10 Top Big Emerging Markets

- **C**hina:
  985,000,000
- **I**ndia:
  879,000,000
- **B**razil:
  249,000,000
- **I**ndonesia:
  259,000,000
- **R**ussian Federation:
  255,000,000
- Mexico:
  95,000,000
- Korean Republic:
  53,000,000
- Turkey:
  72,000,000
- South Africa:
  62,000,000
- Philippines:
  105,000,000

Total:
3,014,000,000

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Interesting Demographics

Country	2013 Population (millions)	Literacy Rate	Illiteracy Rate (millions)	65+ Years of Age	65+ Years of Age (millions)	People with Disabilities	People with Disabilities (millions)
China	1,350	92.2%	105	9.4%	127	10%	135
India	1,221	73.4%	325	5.7%	70	10%	122
Russian Federation	143	99.7%	0	13.1%	19	10%	14
Brazil	201	88.4%	23	7.3%	15	10%	20
Indonesia	251	94.0%	15	6.4%	16	10%	25
Mexico	116	86.9%	15	6.9%	8	10%	12
Korean Republic	49	99.2%	0	12.3%	6	10%	5
Turkey	81	95.3%	4	6.6%	5	10%	8
South Africa	49	87.0%	6	6.1%	3	10%	5
Philippines	106	92.5%	8	4.4%	5	10%	11
Totals:	**3,567**		**502**		**274**		**357**
United States	**317**	99.0%	**3**	13.9%	**44**	10%	**32**

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Installations of IDEAL Accessibility Installer
(one of Apps4Android 30+ accessibility apps)

- **C**hina:
  3,451
- **I**ndia:
  33,872
- **B**razil:
  18,267
- **I**ndonesia:
  8,597
- **R**ussian Federation:
  12,525
- Mexico:
  6,208
- Korean Republic:
  6,178
- Turkey:
  5,986
- South Africa:
  1,058
- Philippines:
  5,630

Total Top 10 Big Emerging Market Installations: 111,772 (29%)

Total United States Installations: 68,536 (18%)

Total Installations: 388,255 (100%)

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Supply-Push Market Forces

What **COMPELS** Industry to design accessible ICT?

Compassion

Organizational Beliefs

Morals

Personal Beliefs

Ethics

Laws

Social Pressure

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Demand Pull Market Forces

$$ Profit $$

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Catastrophic Infrastructure Failures Resulting from Natural Disasters[1].

- The breakdown of essential communications is the most devastating and common characteristics of all disasters.
- The failure of communication infrastructure leads to preventable loss of life.
- It is ironic that the point at which first emergency responders become involved is when the telecommunications infrastructures are in their poorest condition.

1. http://www.disaster-report.com/2013/03/natural-disasters-in-united-states-2013.html

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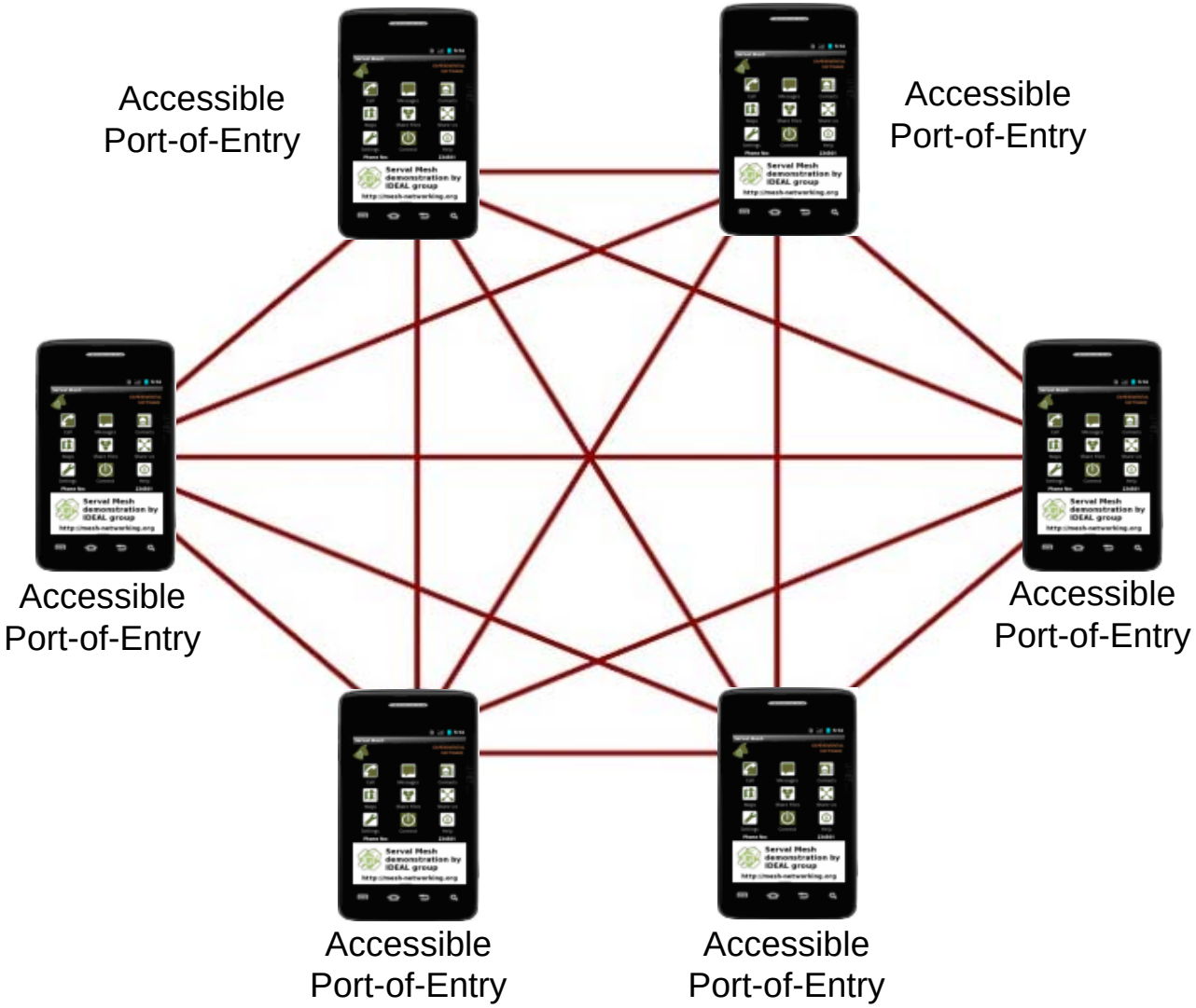
Ad Hoc Wireless Mesh Cloud



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Ad Hoc Wireless Mesh Cloud

- **Independent of other communication infrastructures:**
  - Do not require the use of cell towers or radio base stations to function;
  - Do not require the use of licensed spectrum;
  - Do not require carriers to handle calls or allocate telephone numbers;
- **Flexible by design:**
  - Can be operated by anyone, anywhere, at any time using standard, off-the-shelf, smart phones and tablets.
  - Can be connected to pre-existing cellular networks that are not part of the mesh cloud infrastructure. This can provide connectivity in areas where cellular networks are not available or not feasible.

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Ad Hoc Wireless Mesh Cloud

- **Flexible by Design:**
  - Allows new network devices to be added quickly
  - Automatically assigns each user's device a unique network address that will be recognized as part of the network
- **Low Cost:**
  - No routers needed
  - Off-the-shelf smart phones can be used to create a mesh cloud.
  - Mesh extenders can be built for < $100.
- **Self-Healing:**
  - Mesh clouds dynamically self-configure and organize themselves based upon geographic distribution and demand.
  - *No human intervention is necessary.*

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Ad Hoc Wireless Mesh Cloud

- **Little Energy Required:**
  - Mesh clouds can be implemented in areas without electricity. Node devices are powered by batteries.
- **Router Free:**
  - Mesh cloud “computers” do not require routers to access files on other “computers” or the Internet.
- **Super Mobile:**
  - Mesh clouds can be created on the fly in nearly any situation where multiple wireless devices are available.
  - This includes from within cars, bicycles, trucks, backpacks and even dropped from planes.
- **Fast Set-Up time:**
  - Creating mesh cloud takes only a few minutes

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Assistive Apps and Solutions for Developing Countries and Low Resource Environments

Low-resource environment countries, based on World Bank's definition, are low-income and lower-middle-income economies

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Low Resource Environment Countries

- Afghanistan
- Albania
- Armenia
- Bangladesh
- Belize
- Benin
- Bhutan
- Bolivia
- Burkina Faso
- Burundi
- Cambodia
- Cameroon
- Cape Verde
- Central African Rep.
- Chad
- Comoros
- Congo
- Congo (Dem. Rep.)
- Côte d'Ivoire
- Djibouti
- Egypt
- El Salvador
- Eritrea
- Ethiopia
- Fiji
- Gambia
- Georgia
- Ghana
- Guatemala
- Guinea
- Guinea-Bissau
- Guyana
- Haiti
- Honduras
- India
- Indonesia
- Iraq
- Kenya
- Kiribati
- Korea (Rep.)
- Kyrgyzstan
- Lao P.D.R.

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Low Resource Environment Countries

- Lesotho
- Liberia
- Madagascar
- Malawi
- Mali
- Mauritania
- Moldova
- Mongolia
- Morocco
- Myanmar
- Nepal
- Nicaragua
- Niger
- Nigeria
- Pakistan
- Papua New Guinea
- Paraguay
- Philippines
- Rwanda
- S. Tomé & Principe
- Senegal
- Sierra Leone
- Solomon Islands
- Somalia
- Sri Lanka
- Sudan
- Swaziland
- Syria
- Tajikistan
- Tanzania
- Timor-Leste
- Togo
- Tonga
- Uganda
- Ukraine
- Uzbekistan
- Vanuatu
- Viet Nam
- Yemen
- Zambia
- Zimbabwe

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