

connecting those who need it most



ICT Deployments for Disaster Relief
UPC Barcelona - March 2015

Our mission is to get the tools of Information and Communications Technologies (ICTs)
-- computing, Internet access, telephony --
to the people and organizations who need them most,
in rural and under-served areas in the developing world



Our Mission



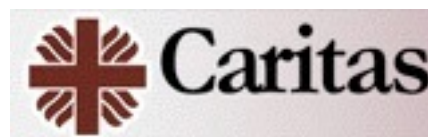
Inveneo at a Glance

- San Francisco based non-profit social enterprise
- Founded in 2004, by Silicon Valley technologists
- Designs and deploys turnkey basic ICT infrastructure solutions for organizations in developing countries
- Building an ICT Entrepreneur partner & capacity-building program to 90 partners in 28 countries
- Delivering systems and projects, with partners, in 25+ countries



Bob Marsh, ICIP Training | Cameroon

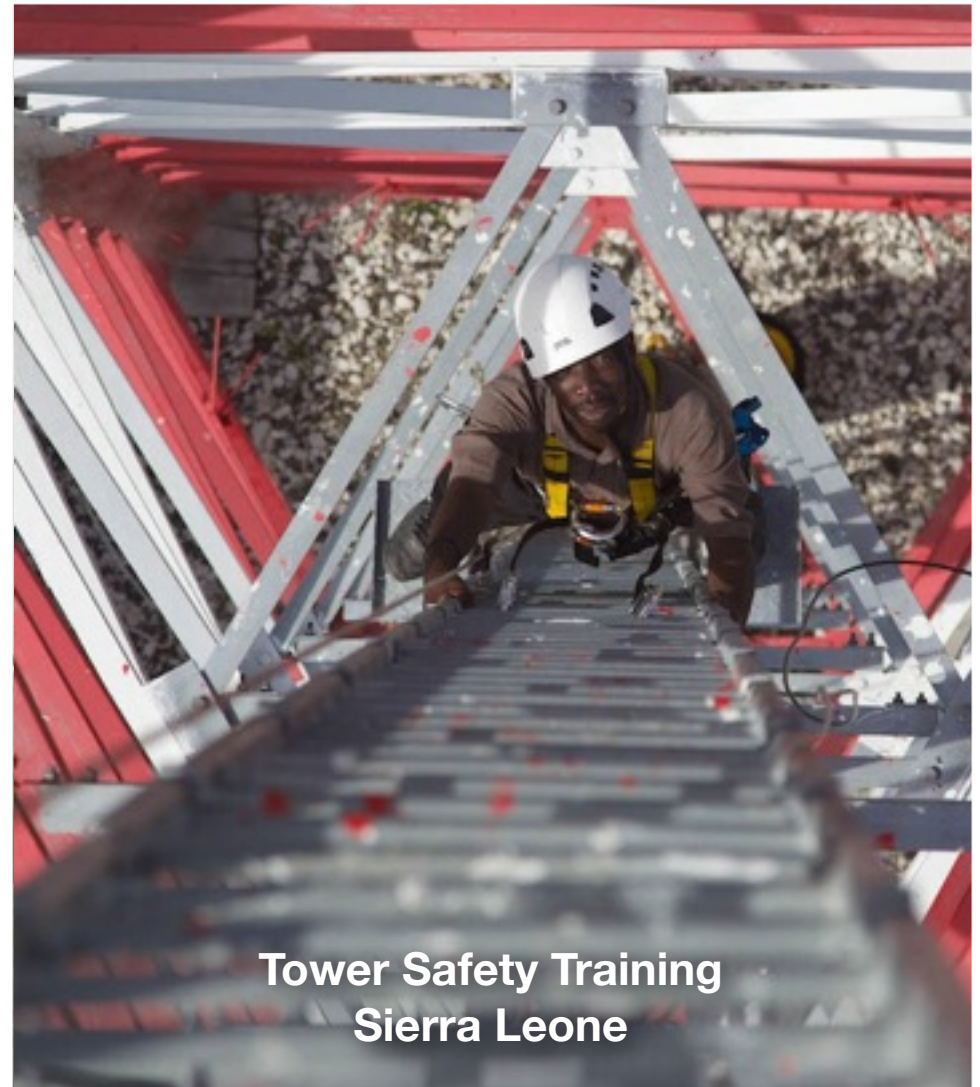
Who We Serve





**Temporary Relay Station
Tacloban, Philippines**

**Needs-Based Solutions for
Network Infrastructure**

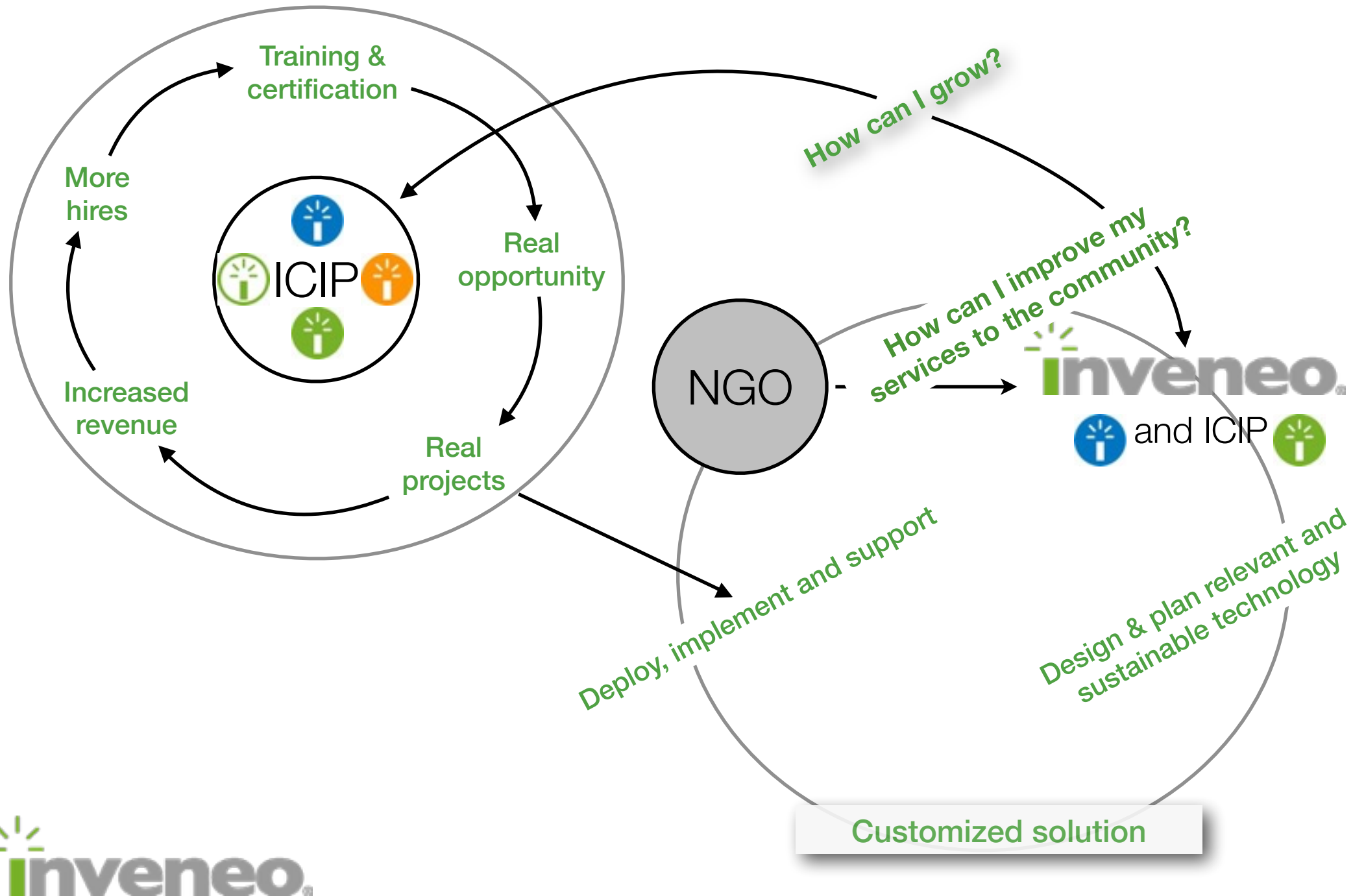


**Tower Safety Training
Sierra Leone**

**Design, Deployment and Support Led
by Local ICT Entrepreneurs**

How we work

How We Deliver



Local Design and Deployment

- Inveneo Certified ICT Partner (ICIP) Program
- Building local ICT capacity of ICT Entrepreneurs
- Enabling access to new, rural markets, new clients and the right equipment
- Accelerating ICT availability in the poorest areas
- In 30+ countries



Kenya ICIPs



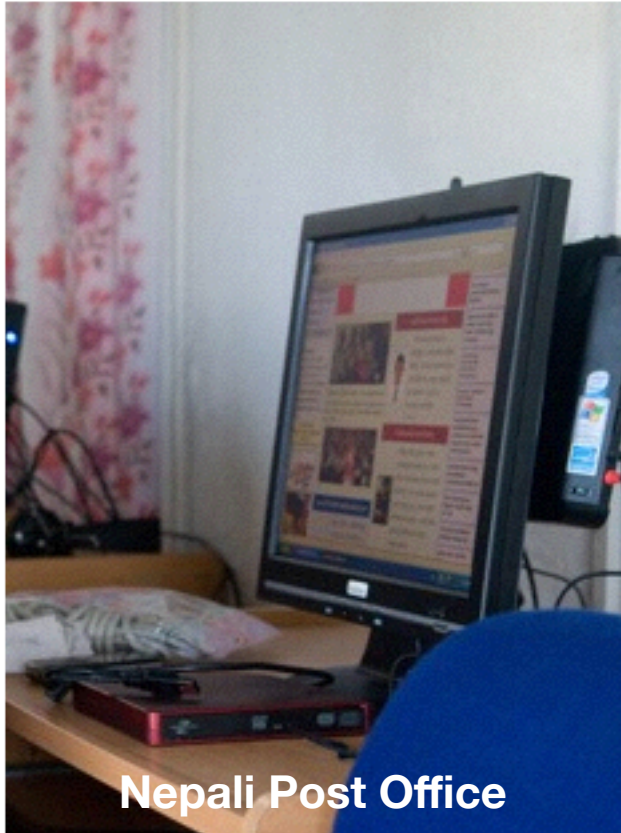
E-Veda ICIP

Rural ICT Challenges

- Power
- Heat, dust, humidity
- Lack of affordable Internet connectivity
- Inexperienced users and administrators
- Expensive, inappropriate or inaccessible solutions
- Lack of professional IT support



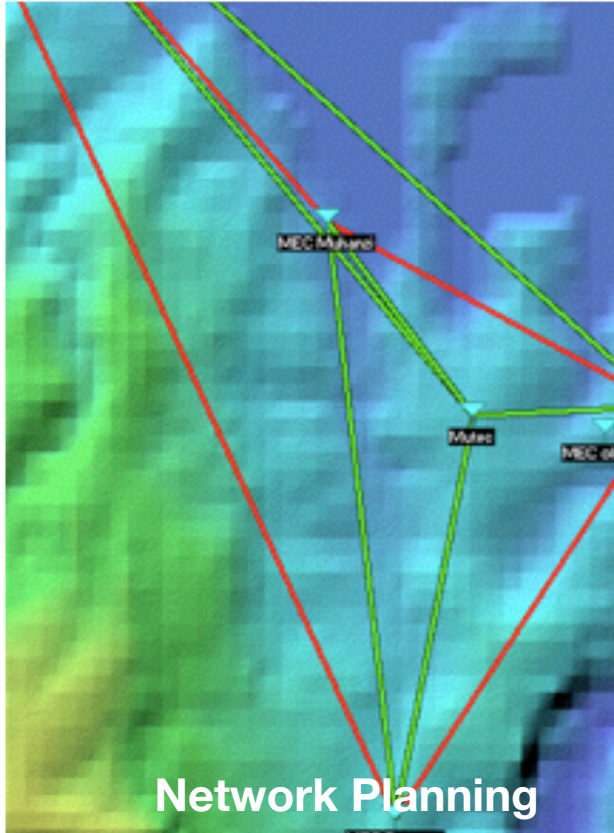
Solutions Integrate Relevant Technologies



Nepali Post Office

Hardware

Ultra-low-powered
computing
Wireless networks



Network Planning

Software

Microsoft and Linux OS
SMS Integration
Network Management



Burkina Faso School

Power

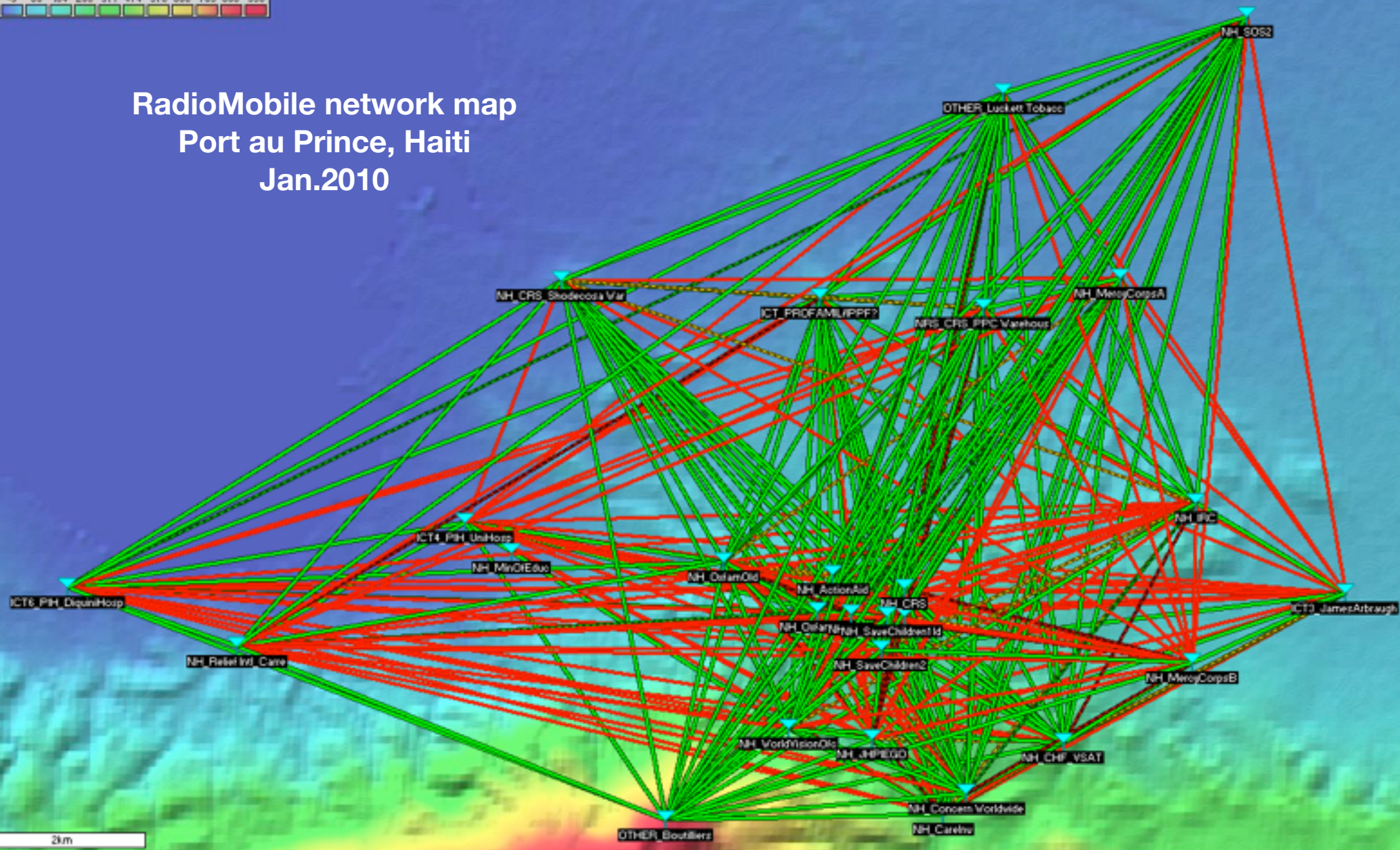
Solar + Batteries
Grid + Batteries
Power Protection

Relief Projects



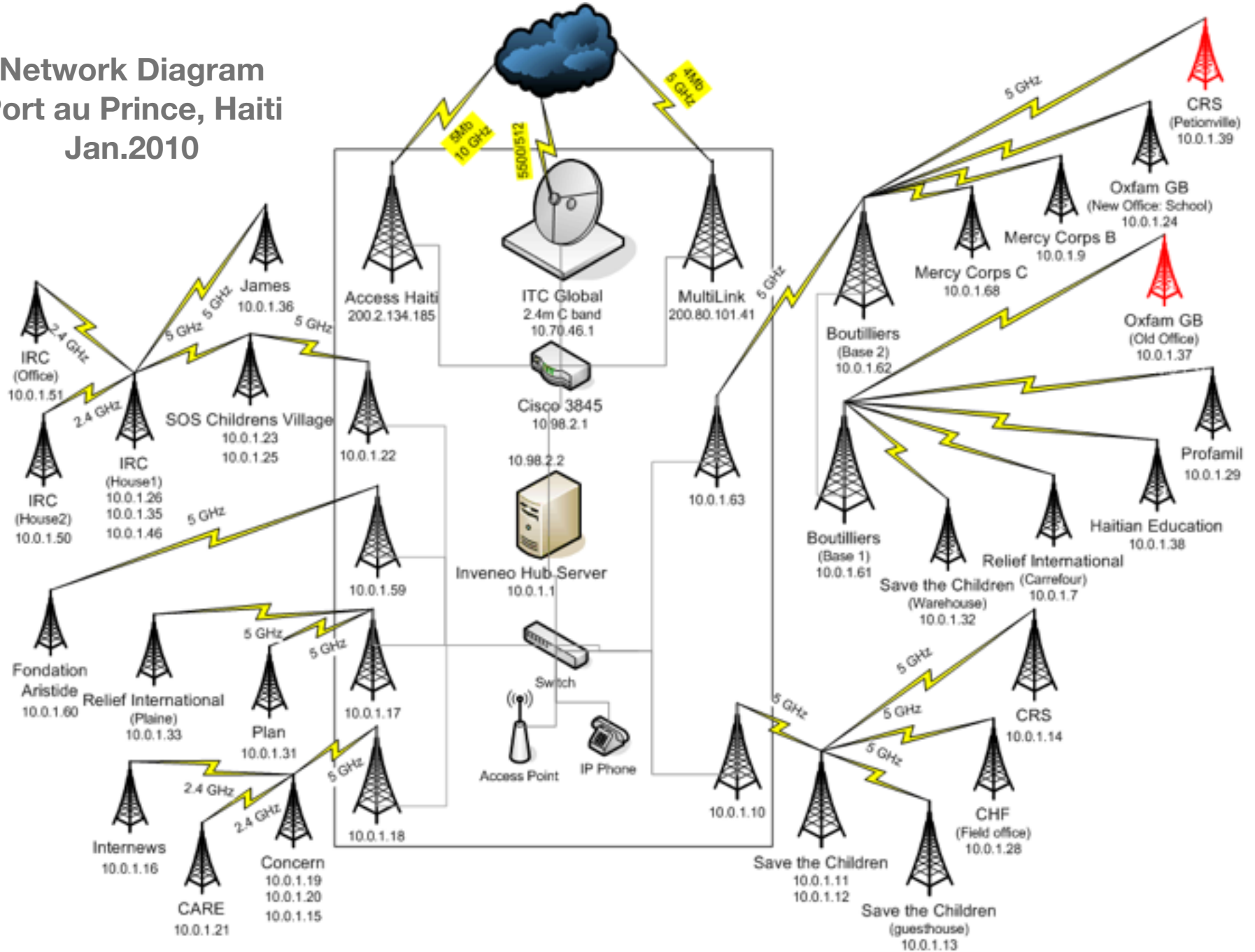
Haiti disaster network

Clients:	NetHope, 18 major NGOS including Care, CHF, WVI
Location:	Port au Prince
Project:	Battery-powered broadband network spanning PaP
Sector:	Emergency Relief
Scope:	23 locations
Partners:	MultiLink, Access Haiti. HTG, NetHope
Reach:	200,000 people



Coverage Mapping

Network Diagram Port au Prince, Haiti Jan.2010



Network Topology Planning



**Inveneo Luxury Accommodation
Tacloban, Philippines**



**Temporary Office Space
Tacloban, Philippines**

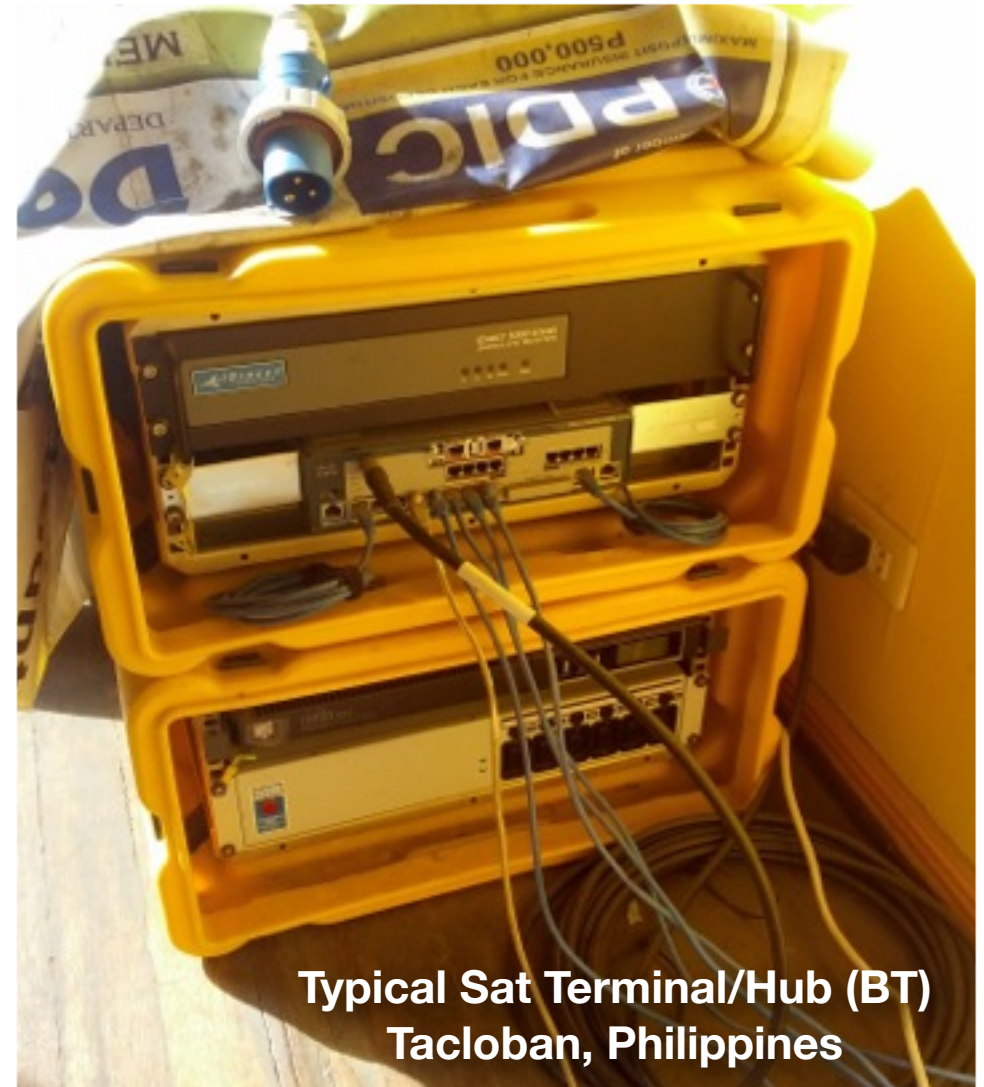
Typhoon Haiyan

Relief Projects

Clients: United Methodist Communications, Nethope
 Location: Tacloban, Philippines
 Project: Typhoon Haiyan Relief communications
 Sector: Emergency Relief
 Scope: 15 locations
 Partner: Local ISPs, UN WFP/ETC
 Reach: 50,000 people in region



**WFP ETC VSAT Antenna
Tacloban, Philippines**



**Typical Sat Terminal/Hub (BT)
Tacloban, Philippines**

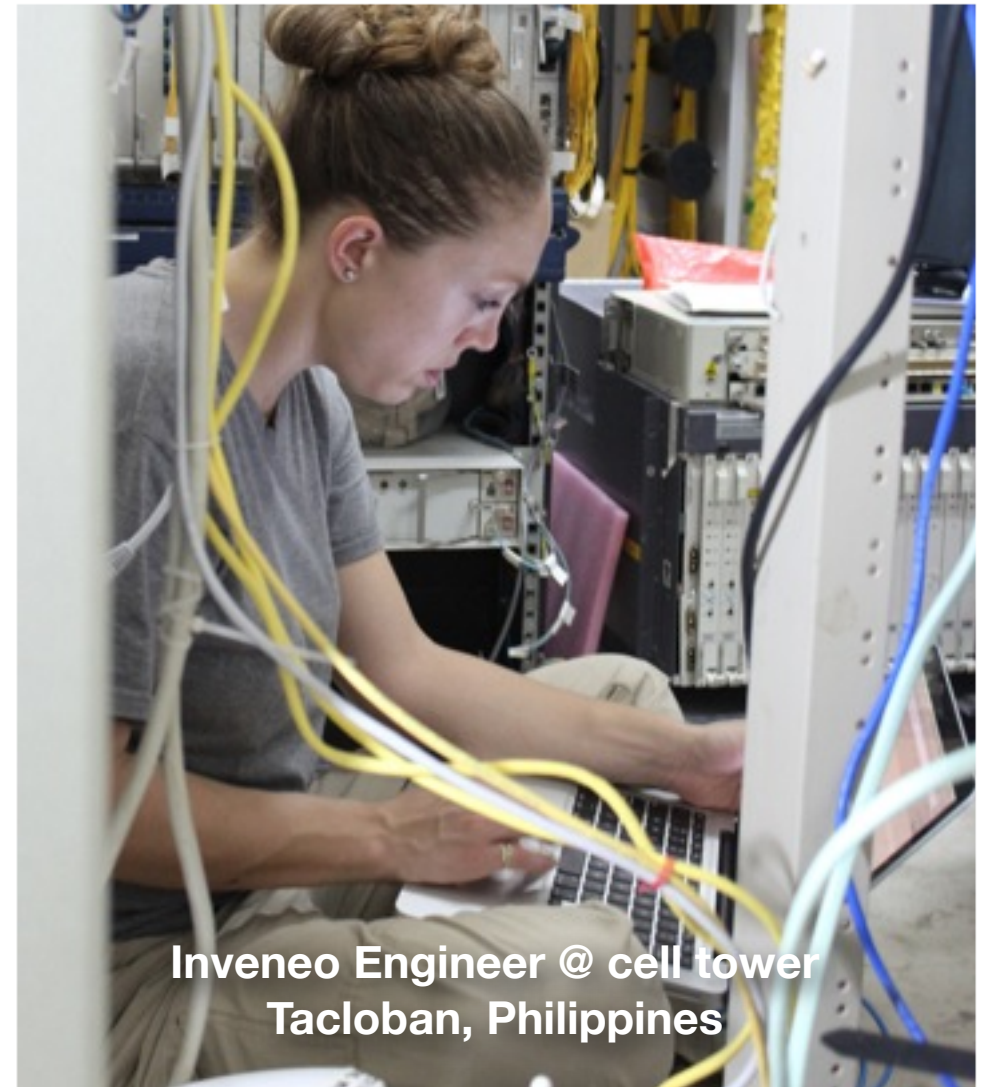
Typhoon Haiyan

Relief Projects

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Sector:	Emergency Relief
Scope:	15 locations
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Reach:	50,000 people in region



**Relay Station on Water Tower
Tacloban, Philippines**



**Inveneo Engineer @ cell tower
Tacloban, Philippines**

Typhoon Haiyan

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Planning where and how to deploy
Accra, Ghana Dec.2014

Ebola Emergency

Relief Projects

Clients:	Facebook, Nethope, Paul Allen Family Foundation
Location:	Sierra Leone & Liberia
Project:	Ebola Emergency Communications Initiative (ERCI)
Sector:	Emergency Relief
Scope:	up to 100 locations
Partner:	Damsel BC Sierra Leone, Techaide Ghana
Reach:	500,000+ people in region



Sites



Connected Site
Sierra Leone



Distribution Kit @ Tower site

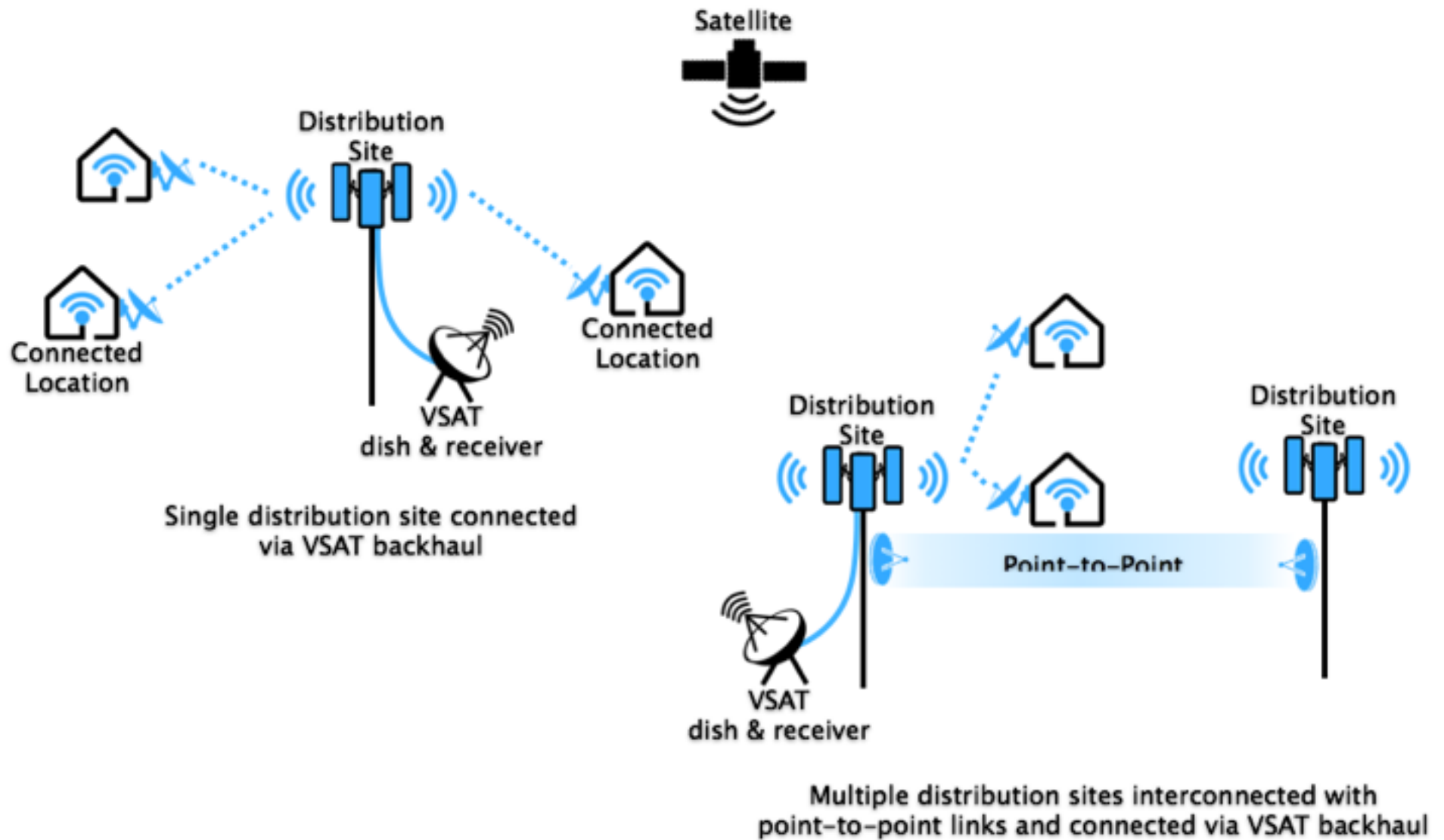
Ebola Emergency

Relief Projects

Clients: Facebook, Nethope, Paul Allen Family Foundation
Location: Sierra Leone & Liberia
Project: Ebola Emergency Communications Initiative (ERCI)
Sector: Emergency Relief
Scope: up to 100 locations
Partner: Damsel BC Sierra Leone, Techaide Ghana
Reach: 500,000+ people in region



Kits + VSAT Backhaul



Ebola Emergency
Relief Projects

Key Elements for Relief Deployments

Preparation:

- Arrange partnerships
- Funders- local staff, govt, ISPs, MNOs
- Plan equipment & kits
- Survey sites, locally &/or remotely
- Plan Logistics
- Document all configurations
- Allow for contingencies
- Keep it Simple!

Field Work:

- Structure work in clusters
- Adapt to conditions
- Work around delays
- Document all changes
- Be consistent & repeatable
- Stay safe!

Useful Links

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<http://blogs.wsj.com/digits/2015/01/21/tech-firms-extend-internet-access-to-help-ebola-treatment-in-africa/?KEYWORDS=ebola>
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www.inveneo.org



Moltes gràcies!
Questions please ...