

# Innovative Approach for Rural Broadband Delivery Haiti Rural Broadband Initiative



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# Inveneo Highlights



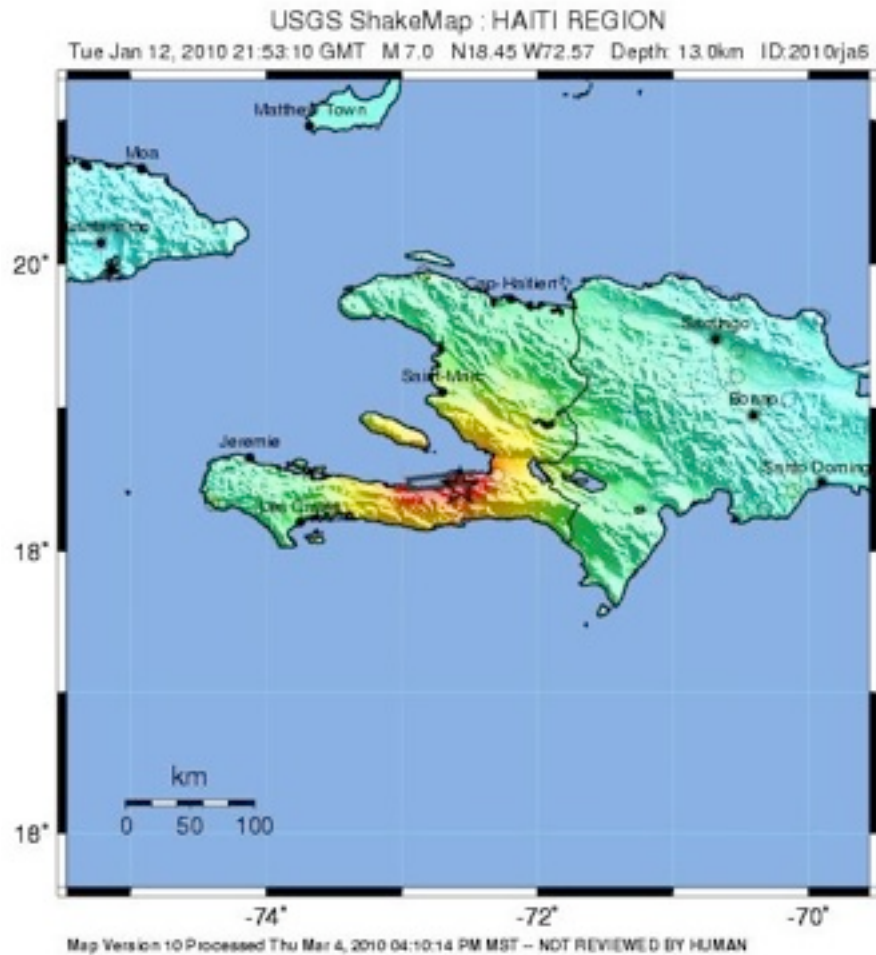
- **Non-profit based in San Francisco**
- **Founded in 2004 by Silicon Valley technologists**
- **Empower rural, underserved communities through information & communications technology (ICT)**
- **Sustainable solutions for challenging environments**
- **Focus on appropriate technologies – low power computing and low-cost communications infrastructure**
- **Serve organizations (NGOs, governments, educational & healthcare etc.) through local partnerships**
- **Build local capacity through IT & business skills training**

# Case Study: Haiti



- **Similar size and population as Rwanda (10M pop, 28,000 km<sup>2</sup>)**
- **2 mobile carriers and 3 ISPs**
- **Voice coverage for 80%+ of the population**
- **3G coverage only in the capital. ISPs have very limited coverage outside of the capital only in some of the secondary towns**
- **In January 2010 a large earthquake devastated much of the capital and surrounding areas – Inveneo helped reestablish communications and provide broadband to first responders**
- **Inveneo's goal was to provide long-term impact – identified the need for broadband in rural areas**

# Phase 1 – Emergency Relief



PERCEIVED SHAKING	Not felt	Weak	Light	Moderate	Strong	Very strong	Severe	Violent	Extreme
POTENTIAL DAMAGE	none	none	none	Very light	Light	Moderate	Moderate/Heavy	Heavy	Very Heavy
PEAK ACC.(%)	<.17	.17-1.4	1.4-3.9	3.9-9.2	9.2-18	18-34	34-65	65-124	>124
PEAK VEL.(cm/s)	<0.1	0.1-1.1	1.1-3.4	3.4-8.1	8.1-18	18-31	31-60	60-110	>110
INTRUMENTAL INTENSITY	I	II-III	IV	V	VI	VII	VIII	IX	X+

- **After 8 Days**  
 Internet connectivity to 8 major NGOs re-established in via long-distance WiFi and VSAT
- **After 14 Days**  
 Connectivity transitioned to terrestrial broadband provided by local ISPs
- **After 35 Days**  
 Network completed serving 18 NGOs, 2000+ end-users, 35 locations, support by local ICT company. Providing 25Mbps
- **After 120 Days**  
 Transitioned network to local ICT partners



# Phase 2 - Haiti Rural Broadband Initiative



## Building Haiti Back Better

- Deploy **economically sustainable** broadband to un-served areas
- Serve Organizations with **high quality** broadband
- **Partner with local** ISPs, MNOs and entrepreneurs to build local delivery capacity and financial opportunity
- Enable **rapid rebuilding** and a path to rural economic opportunity
- Deliver ICT centers and connectivity to rural schools
- Deliver short term **results in 12 - 18 months**

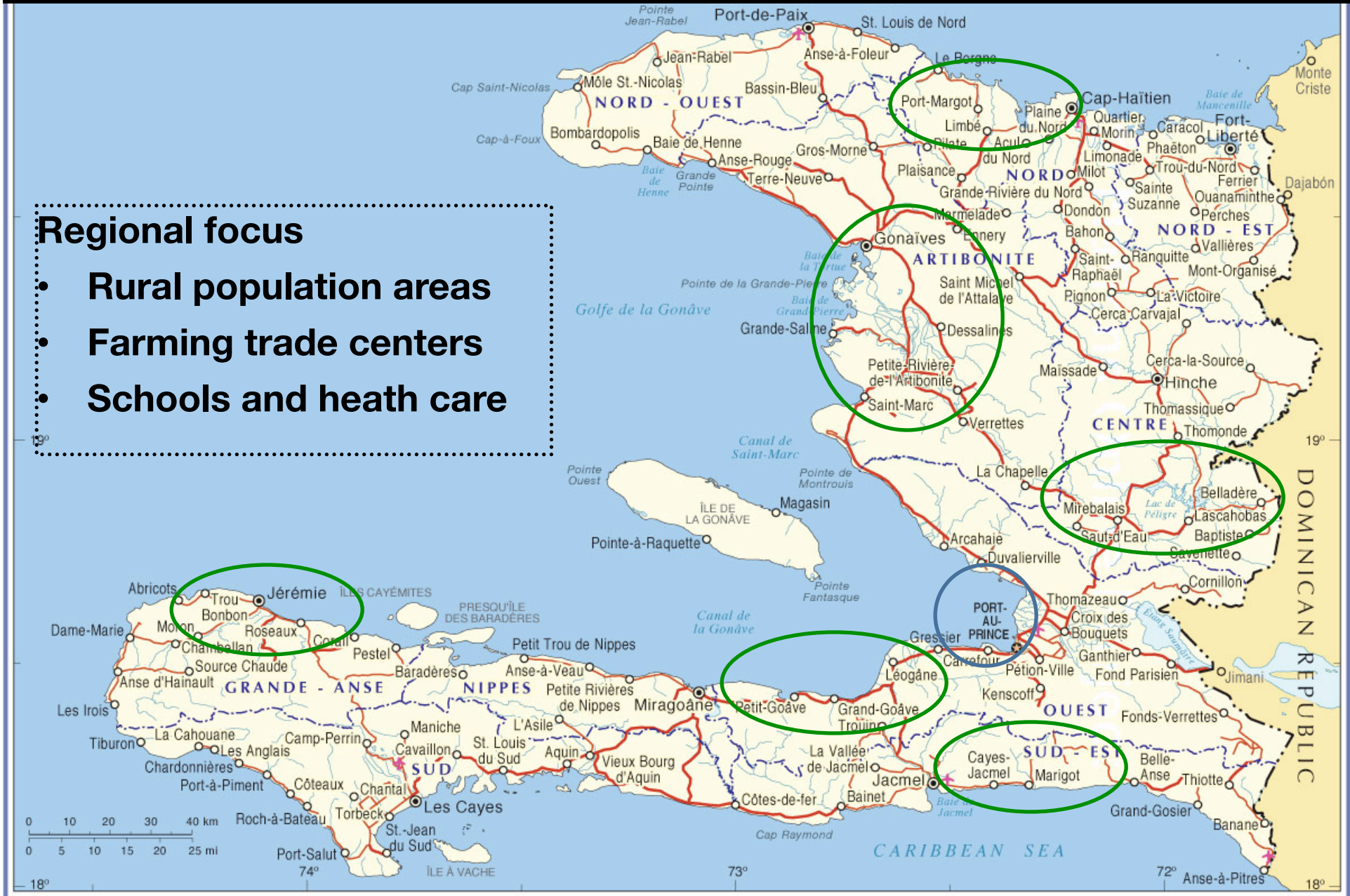


# Phase 2 - Rural Broadband Network Regions



## Regional focus

- Rural population areas
- Farming trade centers
- Schools and health care





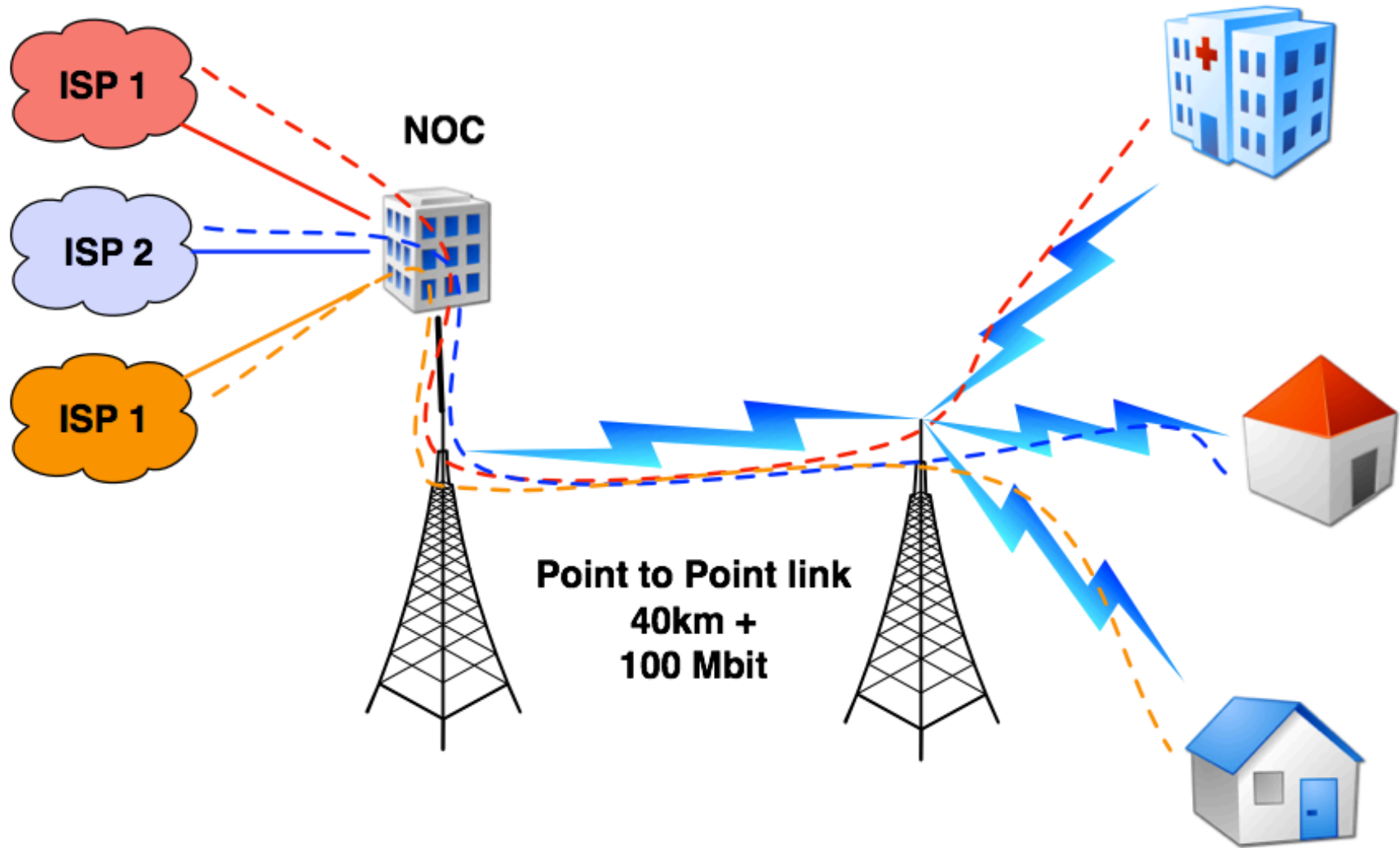
## Phase 2 – Local Capacity Building



- **Training 60 entrepreneurs**
- **Delivering connectivity to 20 population centers covering 20% of the population**
- **Connecting 200+ orgs**
- **Transforming 40 schools into ICT enabled learning centers**
- **Generating 1M+ revenue into the local ICT economy annually**
- **Accelerating economic opportunity**
- **Cost: ~\$2M**



# Shared Network









## **Demand Guarantees**

Identification of network anchor tenants to ensure network utilization

## **Low-Cost Technology**

Use of low-cost networking technology & existing assets, reducing both capital and operating costs

## **Open Access w/ Local Partners**

Partnering with local service providers to reach users, ensuring broad accessibility

## **Capacity Building**

Use of local entrepreneurs to deliver and support the network creating an educated workforce across communities

