Haitian Universities after the quake : The case for an NREN

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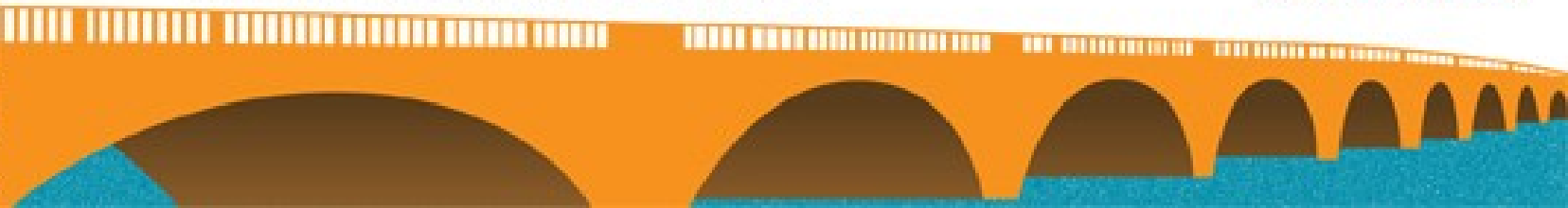
Telecom key data

- Three cellular operators, 3 millions subscribers
- 5 ISPs
  - Mostly in Port au Prince and in a few cities
  - Mostly wireless - license spectrum band
- Internet eXchange Point (NSRC of UOregon)
- Privatization of the incumbent : on-going process

Telecom key data

- 1000 – 2000 USD, 1 Mbps (dedicated bandwidth)
- International connectivity
  - Microwave ↔ Santo Domingo (3 different)
  - Optical Fiber ↔ Bahamas (Teleco)
- In the rural area : Satellite from US based providers
- National backbone... not yet

ICT in the Universities

- Individual connection up to 512 Kbps
  - Individual connection for department
    - Individual connection for program

- Some satellite connections even in Port au Prince
- No SLA, Poor QoS

ICT in Education : Some initiatives

- Online program
- Joint program with Int'l Universities using video conference (UEH, UNIQ, ESIH, INUQUA and AUF)
- OLPC project - 40 Schools in 4 Rural Areas
- Video conference Infrastructure for Health
- Open source CMS for university branches in remote cities
    - Contents hosted outside Haiti
    - Satellite connection

After the quake : Telecoms operators

- Loss of key infrastructure and staff
- … but are (at 98%) back to normal condition
- 40% of customers lost
- New opportunities from rescue teams, Int'l Orgs and NGOs
- … But how to recover the 40% ?

After the quake : The University

Faculty of applied languistic

Nursing School in PAP

Université de Port-au-Prince

Université Quisqueya

After the quake : The University

ESIH

Universite St. Gerard

Faculty of Sciences - UEH

ENAF - IFGCar

After the quake : The University

IES Institutions	Professors and Administrators Deaths (provisional results)	Student Deaths (provisional results)	Damages
Université d'État d'Haïti (UEH)	27	380	8 Facultés/Schools destroyed, 3 damaged
National Schools	21	300	5 destroyed
Private Institutions	83	1919	15 destroyed, 1 damaged
All 32 Universities Surveyed	131 (upper estimate is 200)	2,599 (upper estimate is 6,000)	28 destroyed, 4 damaged

Source: Paul 2010, INURED survey.

After the quake : The University

- Are trying hard to resume activities but...
- Loss of key infrastructures and staff
    - Some went to the US and Canada with their family

- Some students are still in rural area
    - Lost parents
    - Lost means of living
    - Immigrate

After the quake : The University needs

- Resume activities
  - Teachers
  - Students
  - Staff
  - Buildings
 - Recover data

- How ICT can help ?

The case for an NREN

- Affordable Internet connectivity
- Capacity building
- Scientific collaborations - National GRID
- Health, Environmental research, earth-quake monitoring
- Virtual collaborations, on-line content, on-line courses, tele-teaching… other ICT services
- School networks, Schools in Rural Area, OLPC (One Laptop per Child)

12

The case for an NREN

- Public Services (libraries, museums, e-health…)
- Computer Security Incident Response Team (CSIRT)
- Disaster recovery – Remote back up services
- Academic/educational software distribution
- Hosting services/applications for research and educational community (Scientific

Databases)

- ccTLD operations

13
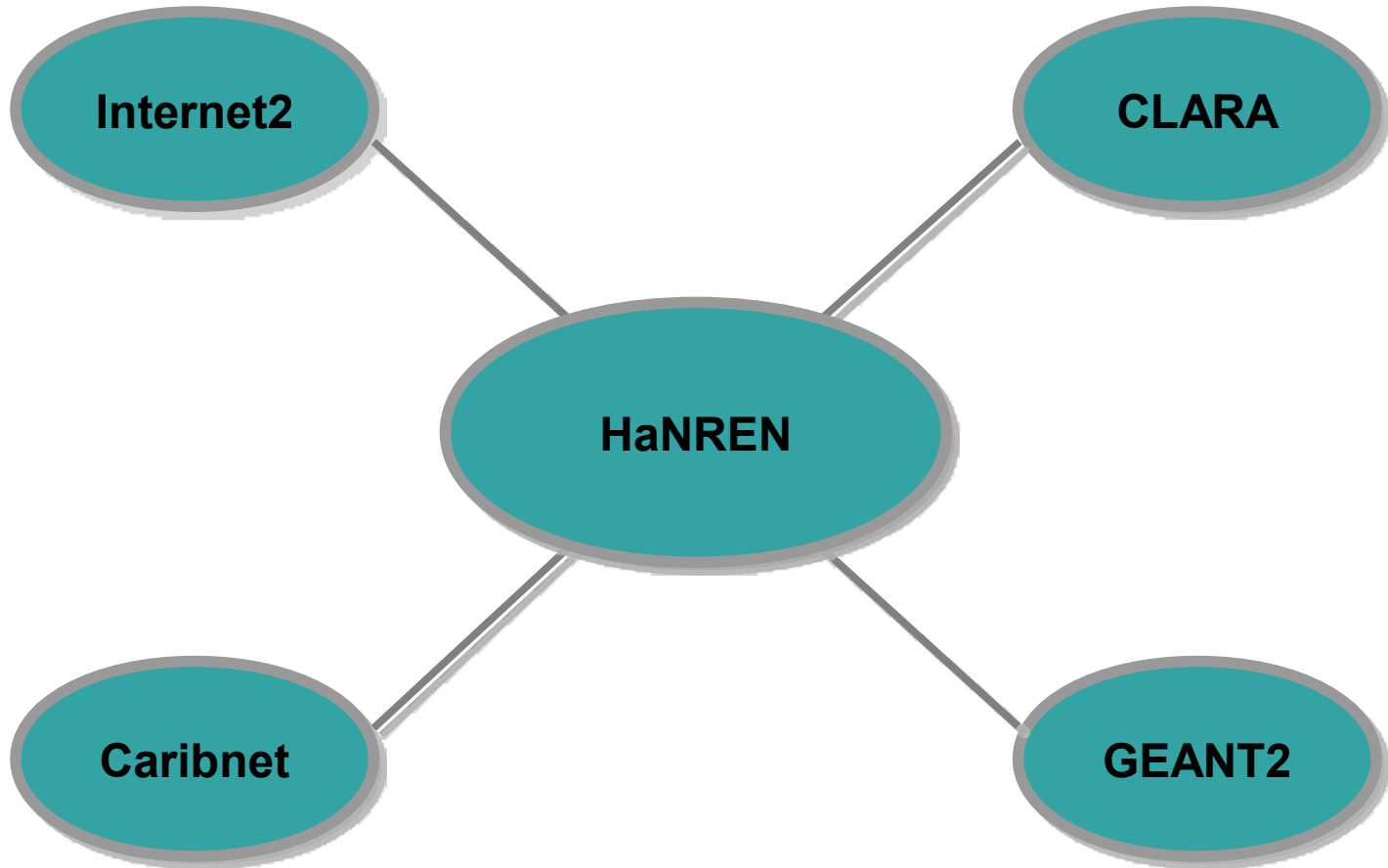
The case for an NREN

The case for an NREN

Phase 1 - participants (In both Port au Prince and the provinces)

Université d'Etat d'Haiti

Université Caraibe

Université Quisqueya

Université Notre Dame d'Haiti

Institut Universitaire Quiskeya Amerique

Ecole Superieur d'Infotronique d'Haiti

Centre Technique de Planification et d'Economie Appliquée

General Hospital

Institut Haïtien de Statistique et d'Informatique (IHSI)

Bureau des Mines et de l'Energie

15

HaNREN Sustainability

- New program in Science and technology
  - Develop master and PhD degrees (with tutoring and research in Haiti)
    - Critical mass of research professors
    - Produce contents... publish

- Doctoral schools
- Research Labs

HaNREN Sustainability

- Anticipate regulatory, political & commercial impact of the NREN services

- Political Support

- Develop services that institutions need, not necessarily the best technology

- Management and QoS

- Recurrent cost

References

www.inured.org/docs/TheChallengeforHaitianHigherEd_INURED2010March.pdf

www.aird.fr/haiti/documents/DeclarationCORPUCA.pdf

http://www.youtube.com/watch?v=btmHhimzRg4

http://www.dailymotion.com/video/xcdcdv_universite-de-quisqueya-d%C3%A9truite_news

Q & A