Ministry of Post and Telecommunication of Cambodia

Cambodia NerveNet Field Testing

Project Review 2016

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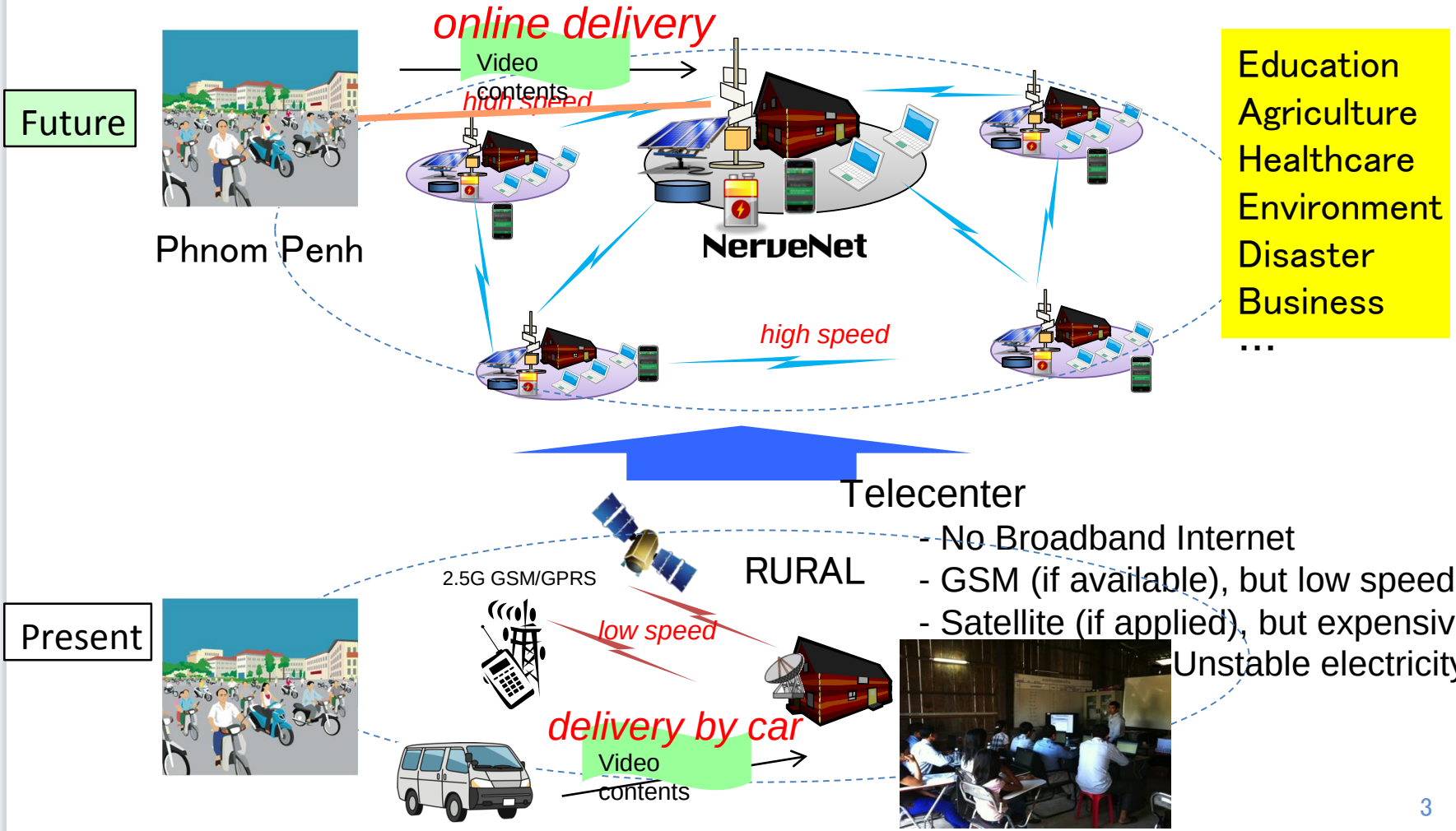
Contents

Project Summary

Vision "Smart Village" with NerveNet

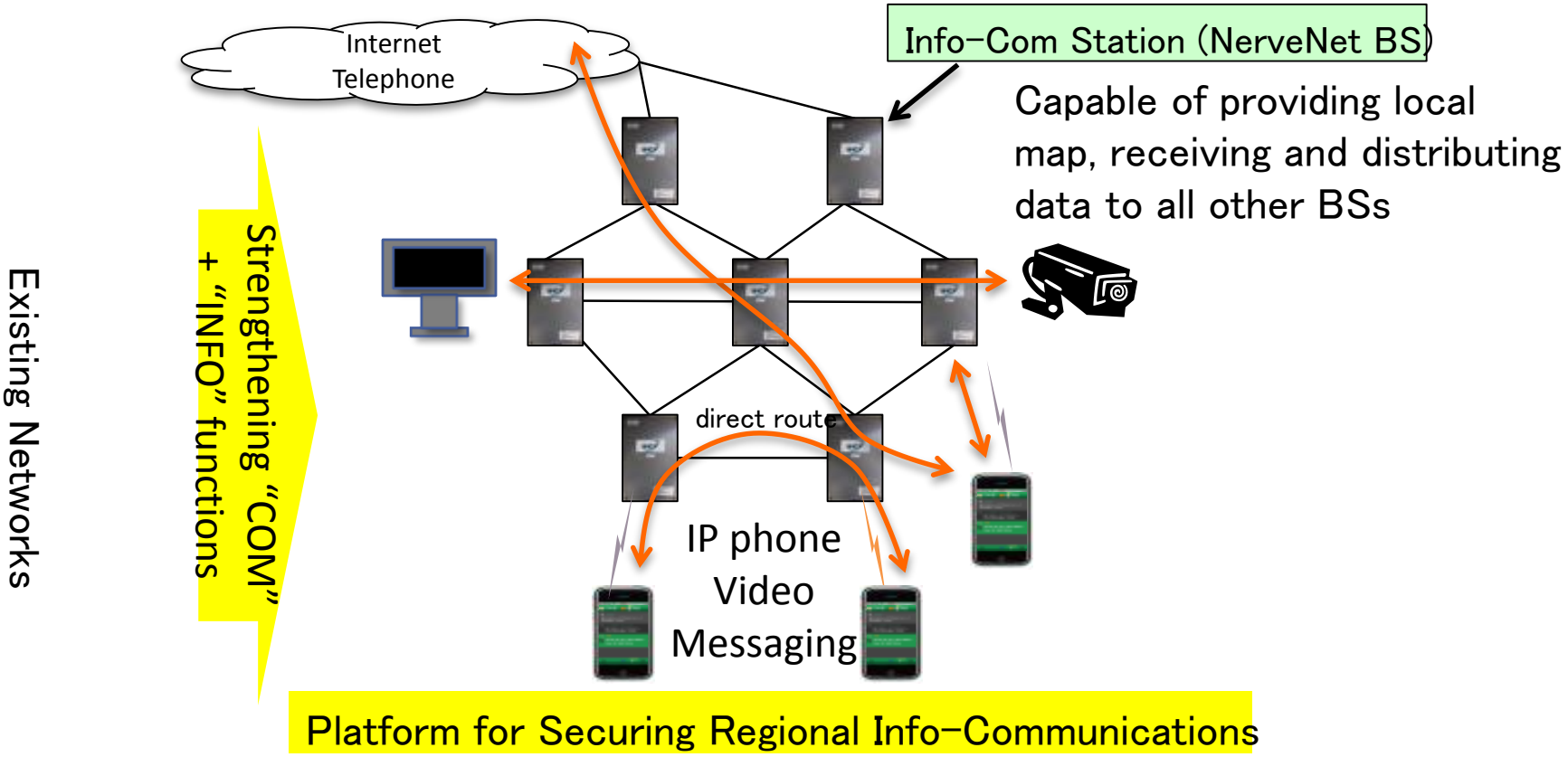
Pilot test of NerveNet in rural areas in Cambodia



Project Summary

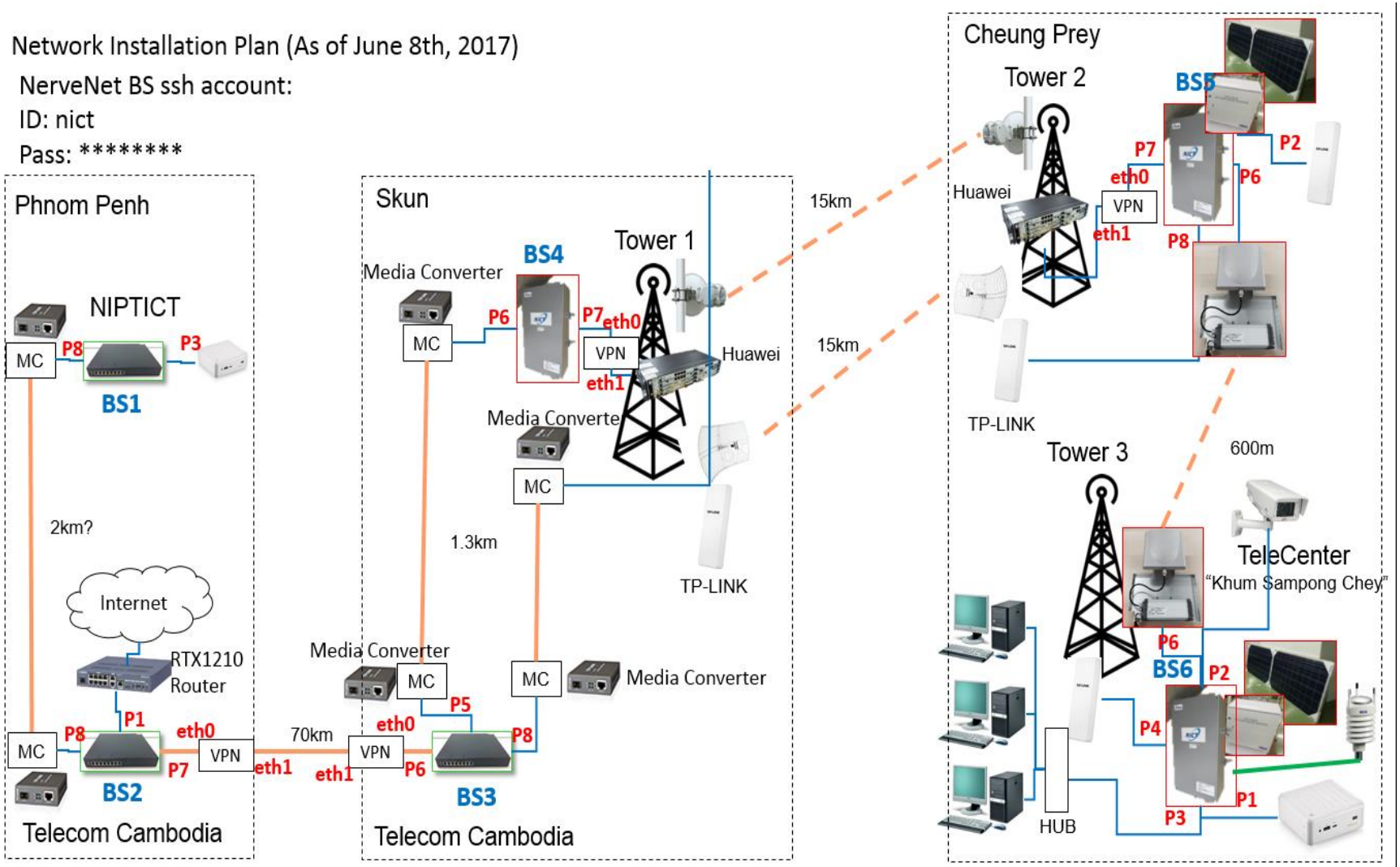
NerveNet：Info-Com Packaged Network

- Info-Com Station (NerveNet BS) developed by NICT, Japan.
- Mesh network securing against failures and allowing easy expansion.
- Applications: Voip, video, messaging, web, Database.



Project Implementation

NerveNet Installation



Project Achievement

Applications

- Kids have enjoyed with learn English by e-learning application developed by NIPTICT
- Community access to agricultural information, health and business
- People have enjoyed with communication with their relatives working at oversea.

60 students in training center

New Issue

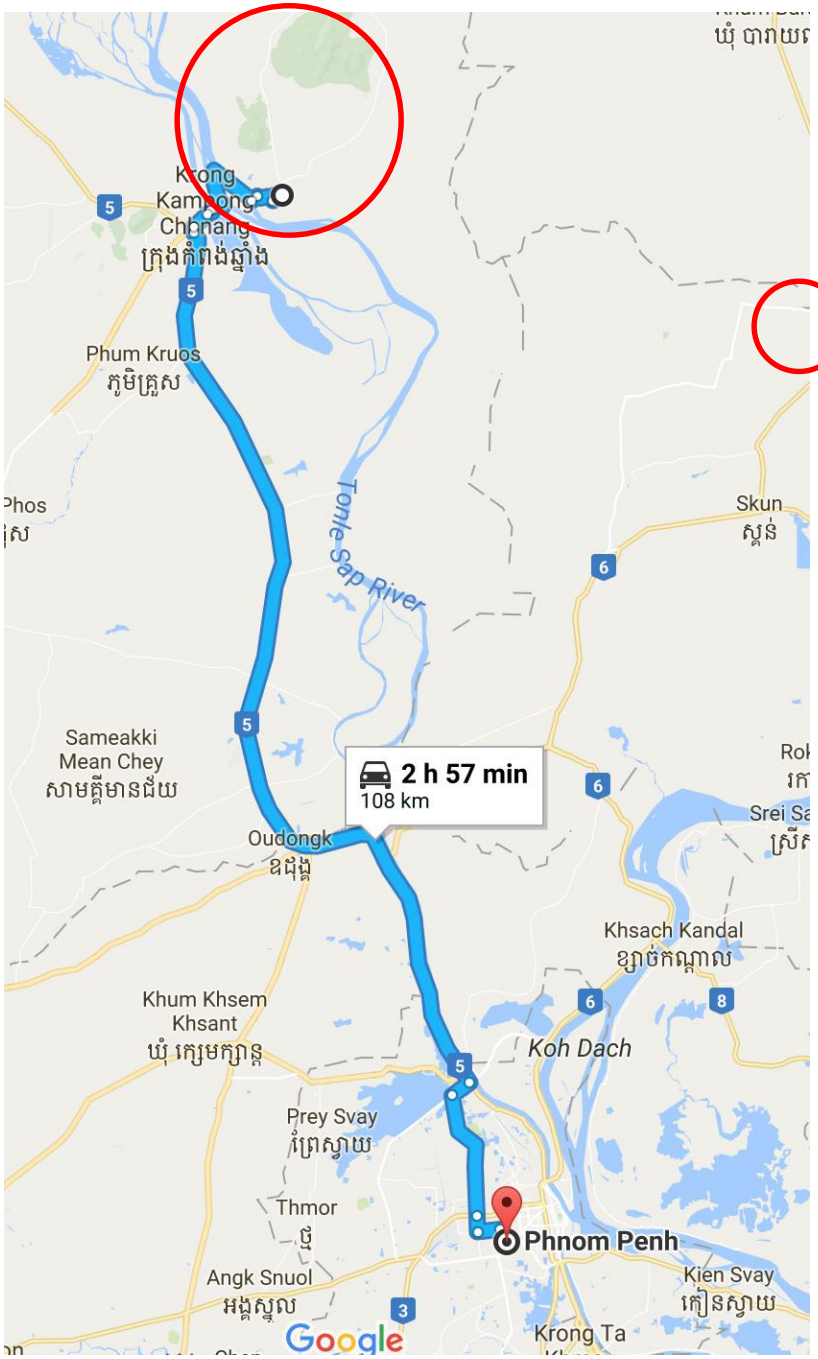
- Cambodia develops very fast, Our Tele-Center now is no more rural area
  - 4G
  - Fiber Optical cable
  - Stable electricity became available.

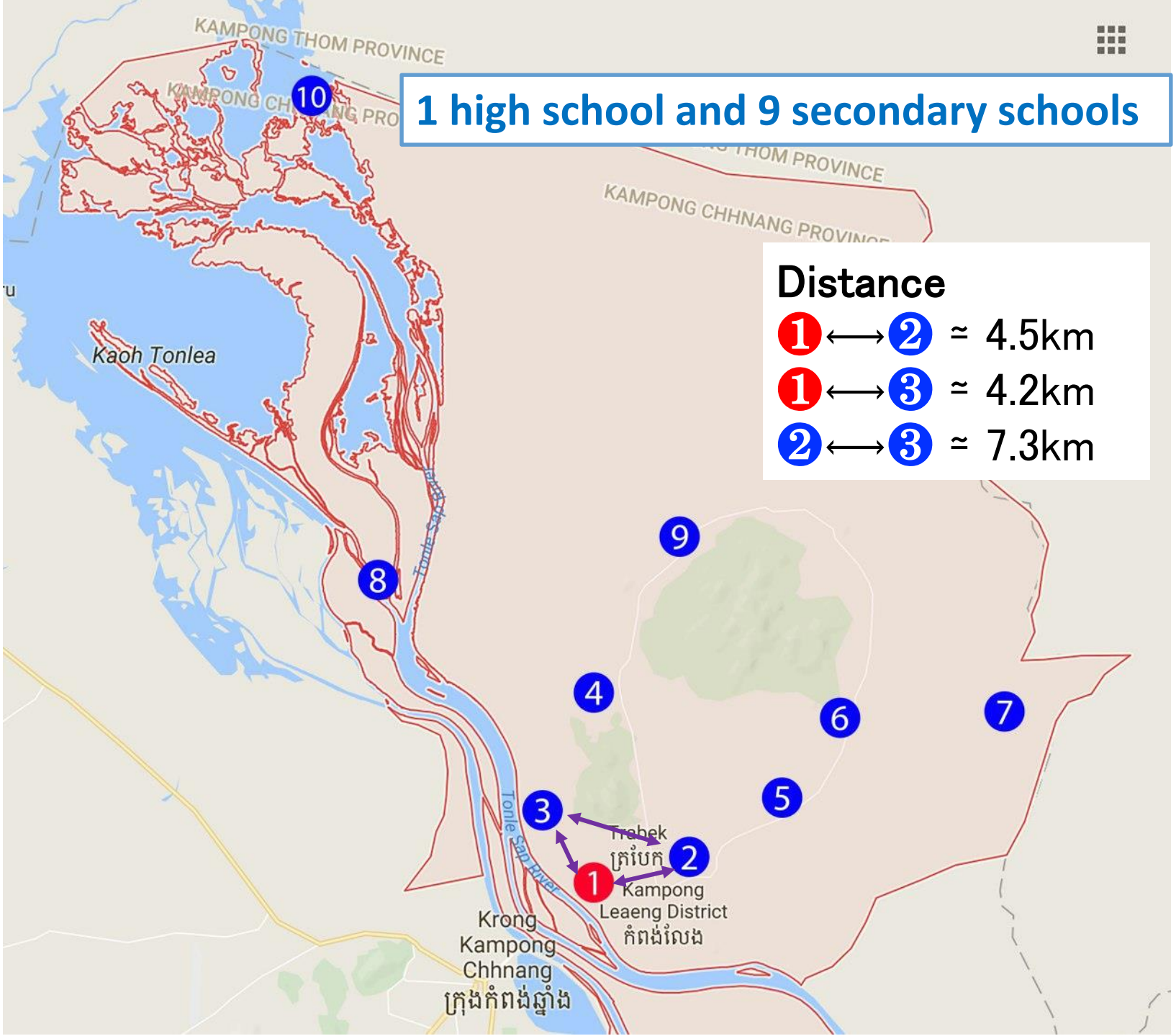
Future Plan

- To move the experimental NerveNet System to the new REAL Rural Area
- Pilot test new NerveNet system (Raspberry Pi)
- To evaluate the usefulness of the system and applications at the remote area.
- Allow Schools, government offices in remote areas (No mobile broadband, no stable electricity) to access and share multimedia contents.

Future Plan

- Deployment location:
  - 108km from Phnom Penh to Kampong Chhnang province
  - 1 high school and 2 secondary schools will be selected to test new NerveNet system for the first stage




KAMPONG THOM PROVINCE
KAMPONG CHHNANG PROVINCE
Kaoh Tonlea
Tonle Sap River
Krong Kampong Chhnang
ក្រុងកំពង់ឆ្នាំង
Trobek
ត្រពែក
Kampong Leaeng District
កំពង់លែង
1 high school and 9 secondary schools
Distance
1 ⟷ 2 ≃ 4.5km
1 ⟷ 3 ≃ 4.2km
2 ⟷ 3 ≃ 7.3km

Future Plan (New NerveNet system)

- System organization:
  - New Base Station: Raspberry Pi 3 with USB Ethernet adopter (5W)
  - Solar Power
  - Fixed Wi-Fi system (2 for each node) : candidate is CPE510 (10W max) (http://www.tp-link.com/us/products/details/cat-37_CPE510.html)
  - Outdoor housing box
- 3G/LTE network system:
  - Using mobile router/USB dongle

Thank You