



National Institute of Posts, Telecoms and ICT
National Institute of Information
Communications Technology

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Cambodia NerveNet Field Testing

Content:

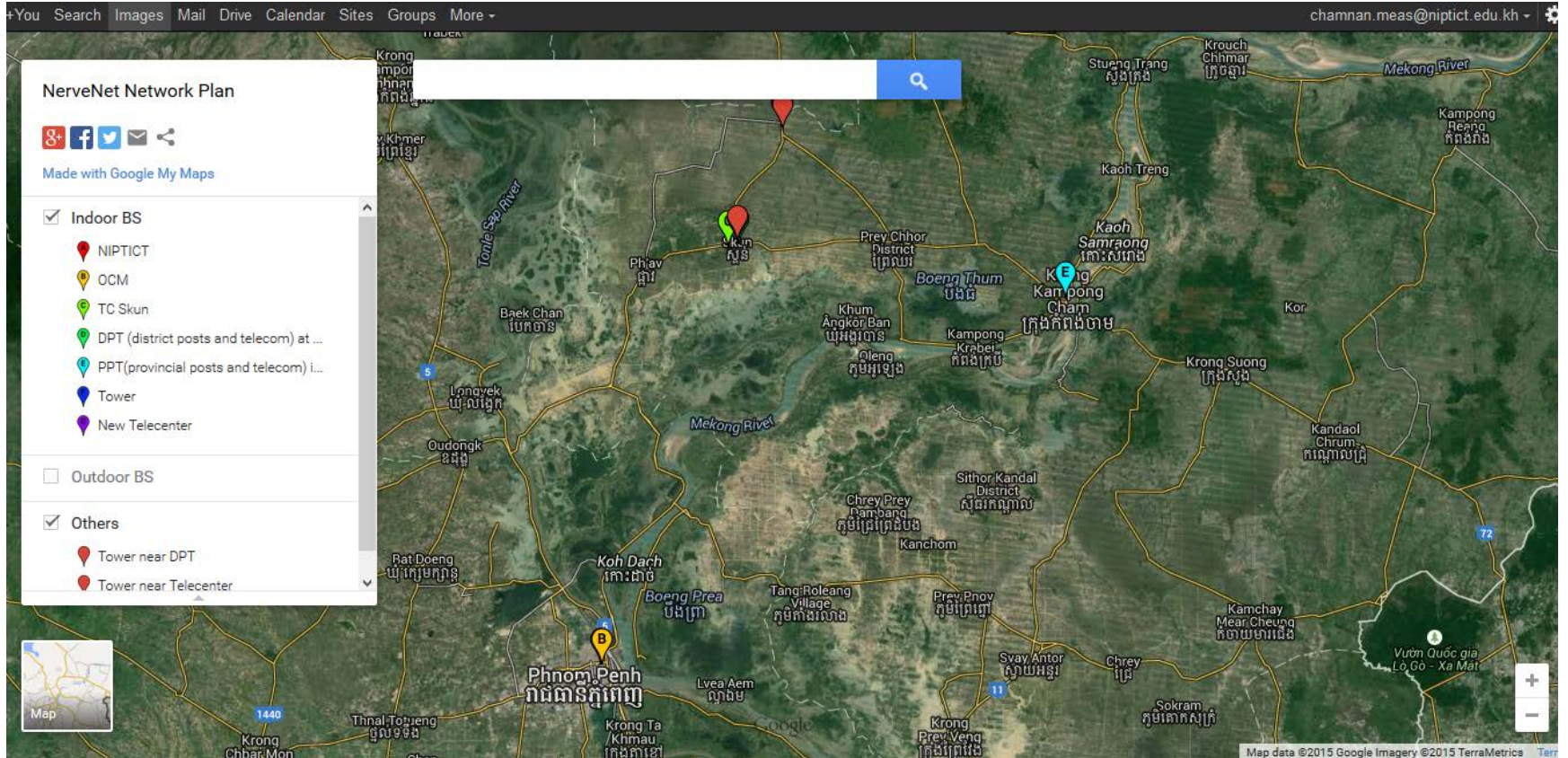
I. Planning

II. Network Configuration

III. Application of NerveNet

I. Planning

Site Planning




TeleCenters Along National Road No.6

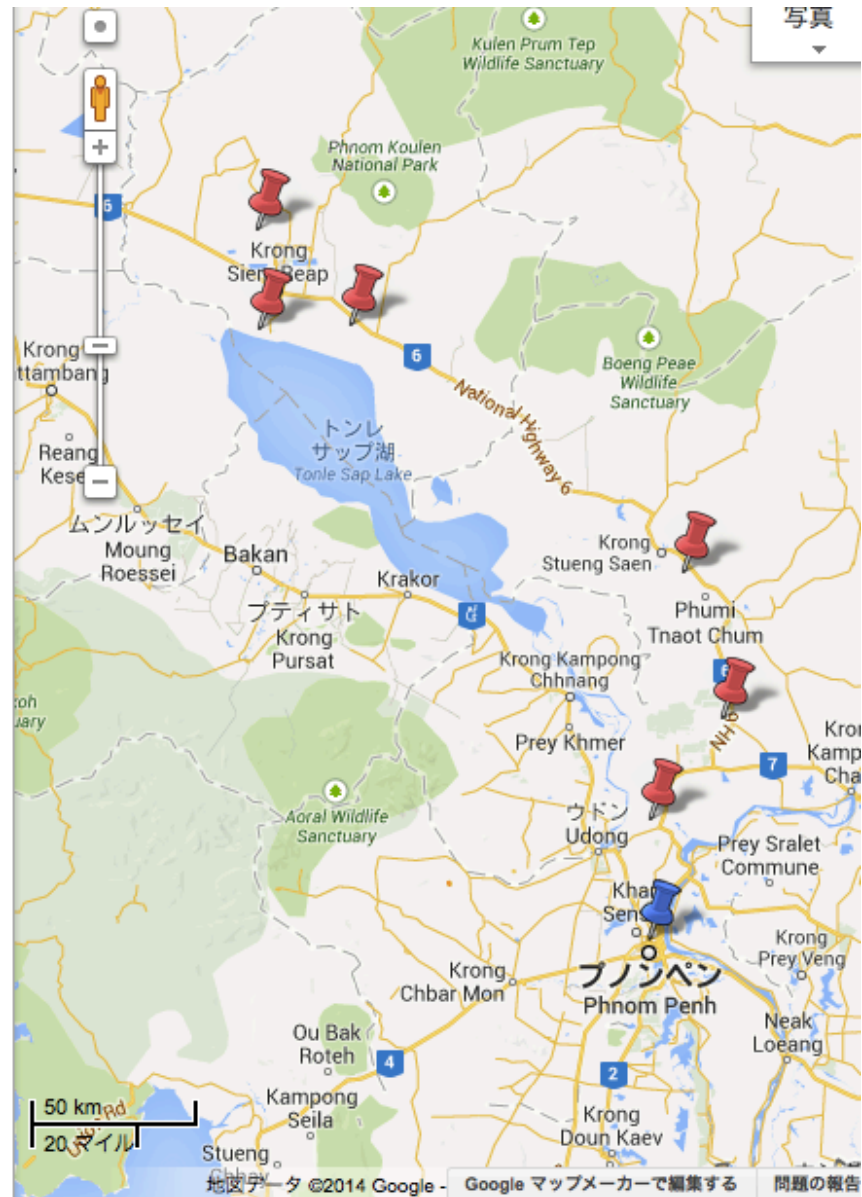
Tele-Center

限定公開 (URL で共有) · 表示回数 0

6月12日作成 · 投稿: Masugi · 4分前更新

[この地図に評価を付ける](#) · [コメントを投稿](#) · [KML](#) · 

-  **Chealea Tele-Center**
11.911285,104.927422
-  **Sampong Chey Tele-Center**
11.911285,104.927422
-  **Chrorb Tele-Center**
12°35'25.0"N 105°01'14.2"E
-  **Kchas Tele-Center**
13°16'28.2"N 104°04'49.8"E
-  **Chong Kneas Tele-Center**
13°16'28.2"N 104°04'49.8"E
-  **Svay chek Tele-Center**
13°31'55.2"N 103°48'55.3"E
-  **Ministry of Post and Telecommunication**



Skun



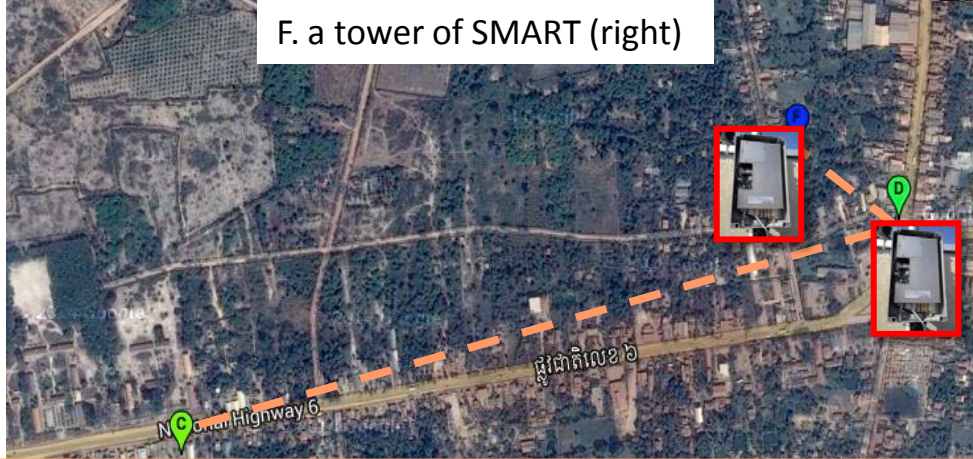
C. TC's station



F. a tower of SMART (right)

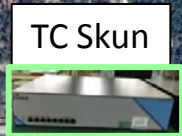


D. DPT



TC will install new fibers between C-D-F.

TC PNH ←



TC Skun

→ TC Kampong Cham



TeleCenter “Khum Sampong Chey”

- Telecenter(G) moved 600m north of its original place.
- Skun(15km south) and the tower(H) will be linked with long-distance radio
- Telecenter(G) and the tower(H) will be connected.

I, J, K, L will not be connected this time.



G: TeleCenter (new place)



I: School



J: Local authority



K: Police station



L: Health center
H: Tower

NIPTICT , NICT Meeting discussion about site visit



Meeting with NIPTICT



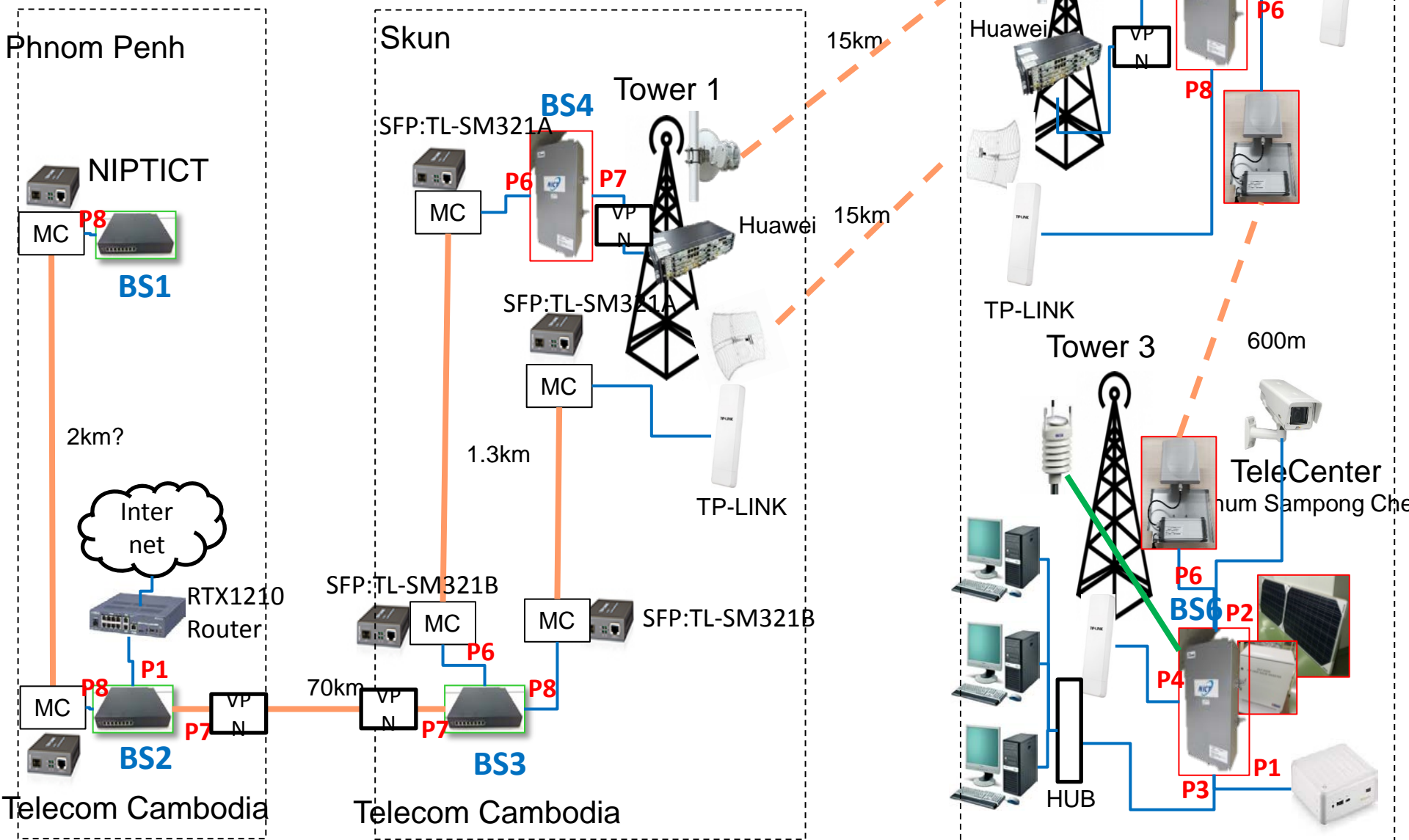
Kampong Cham Visit



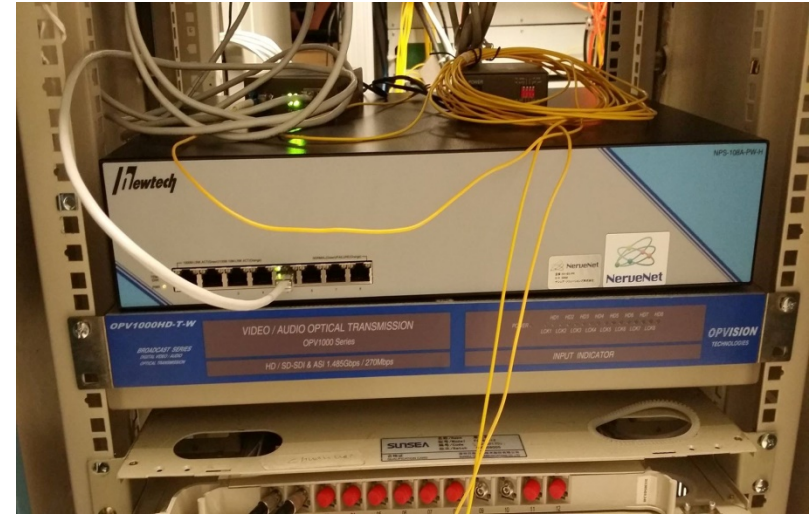
Meeting with Telecom Cambodia

II. Network Configuration

Network Configuration of NerveNet in Cambodia



Connecting Fiber optical and installing base station



Installing Nervenet base station NIPTICT to TC (Angor data center)



Connecting fiber optic from TC skun to Tower smart spun

Installation MW Communication

Smart Tower 2 at Sampong Chey Site

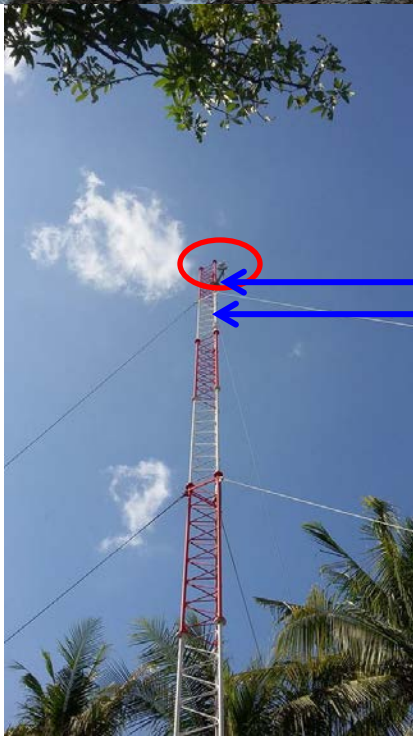


Smart Tower at SKUN 1



15 km

Tower Installation and link communication Between Tower 2 at Sampong Chey to Tele-center



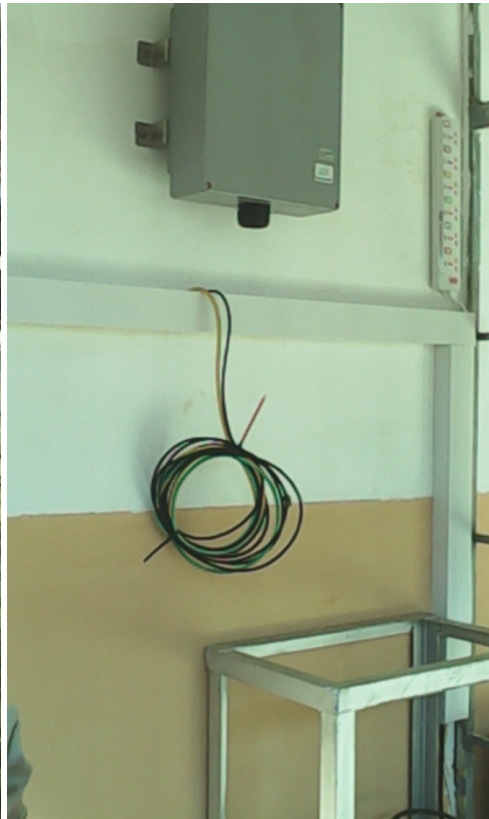
Radio Transceiver and Antenna

TP-Link

Solar Panel Installation



Smart tower 1



Power Cable layout at Tele-Center



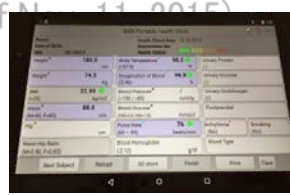
Smart tower 2

III. Applications

Data Sharing

Upload

Download



Cheung Prey

Tower 2

Upload

Download

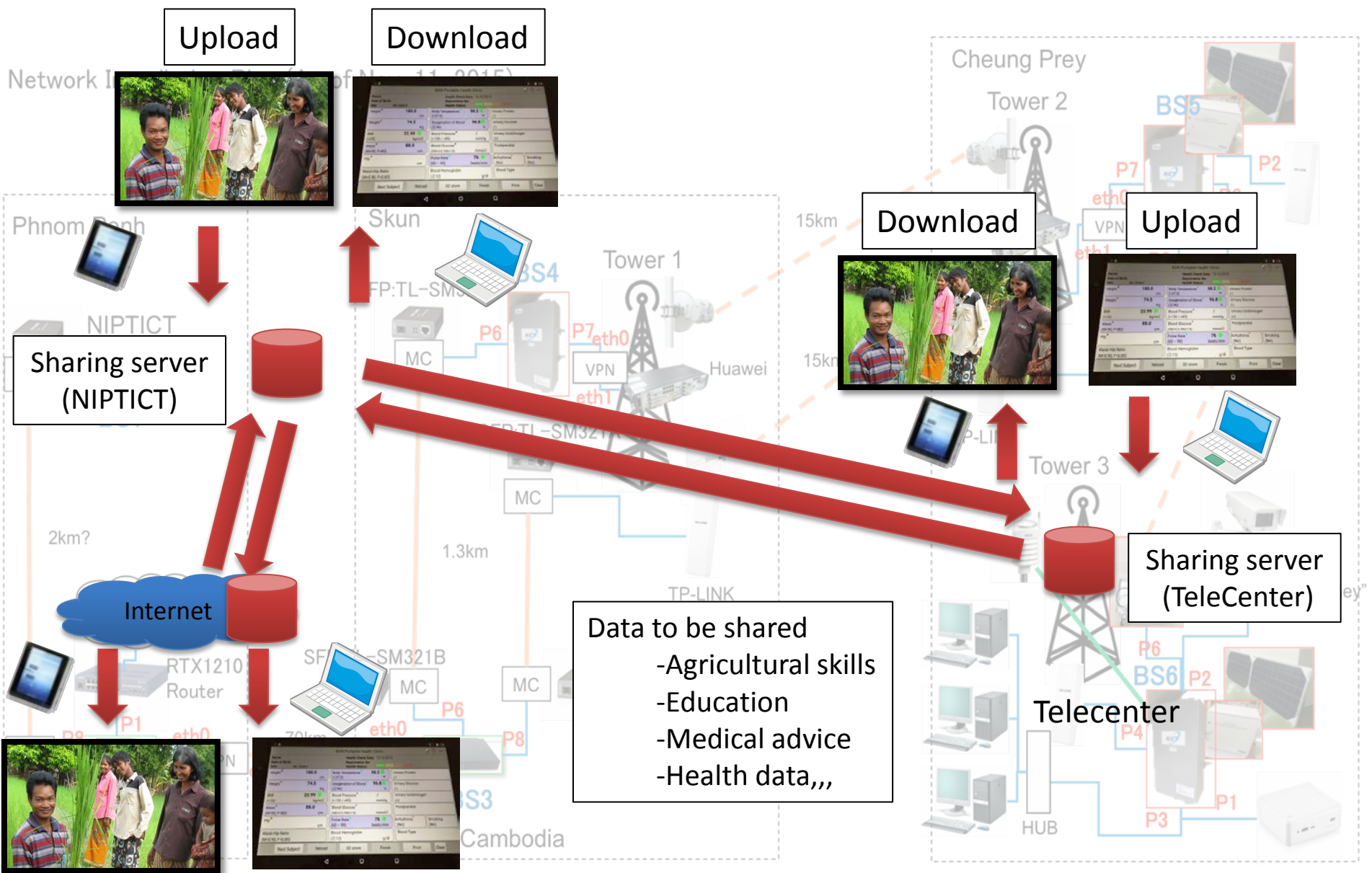


Sharing server (NIPTICT)

Sharing server (TeleCenter)

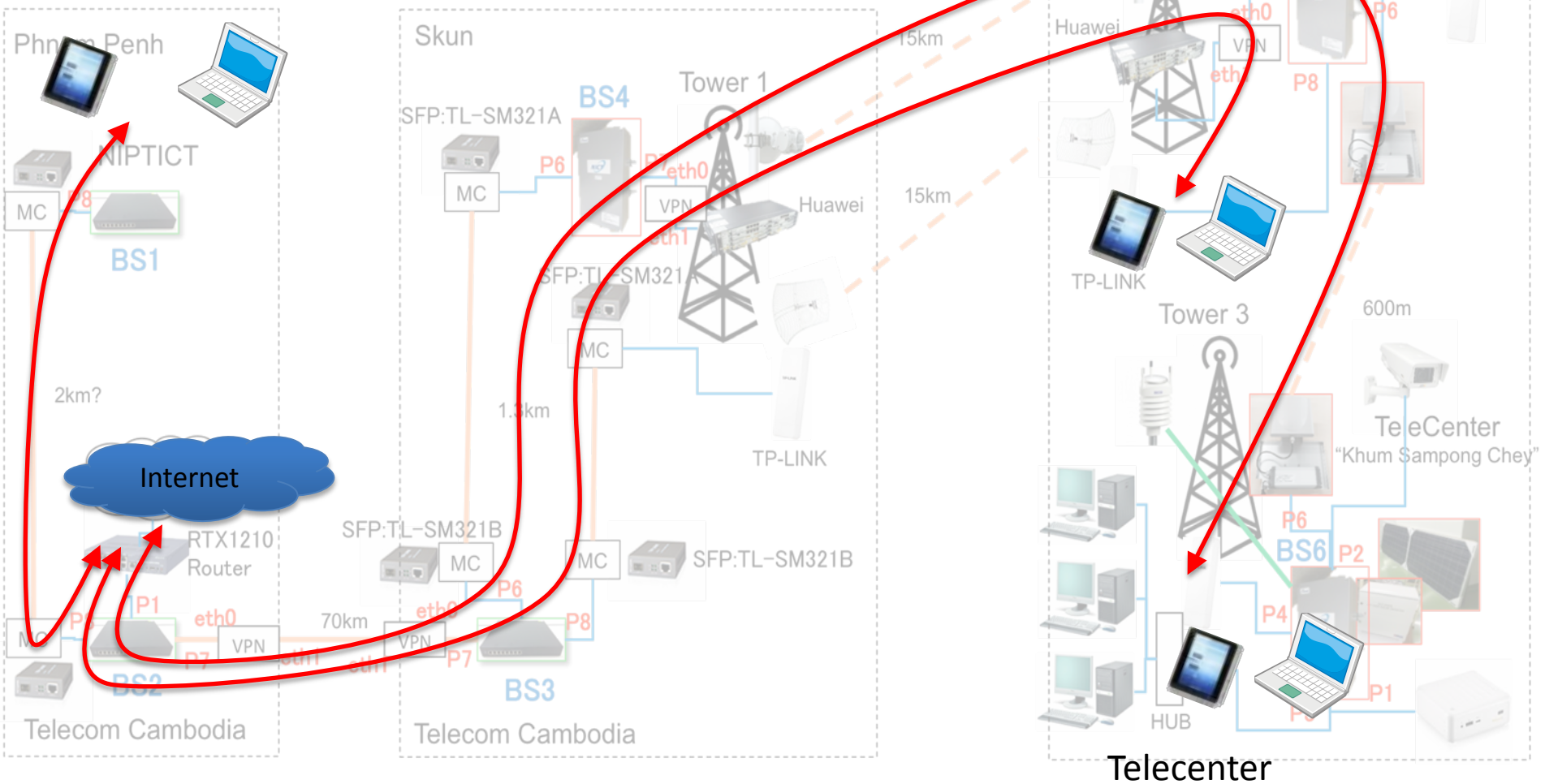
Data to be shared

- Agricultural skills
- Education
- Medical advice
- Health data,,,

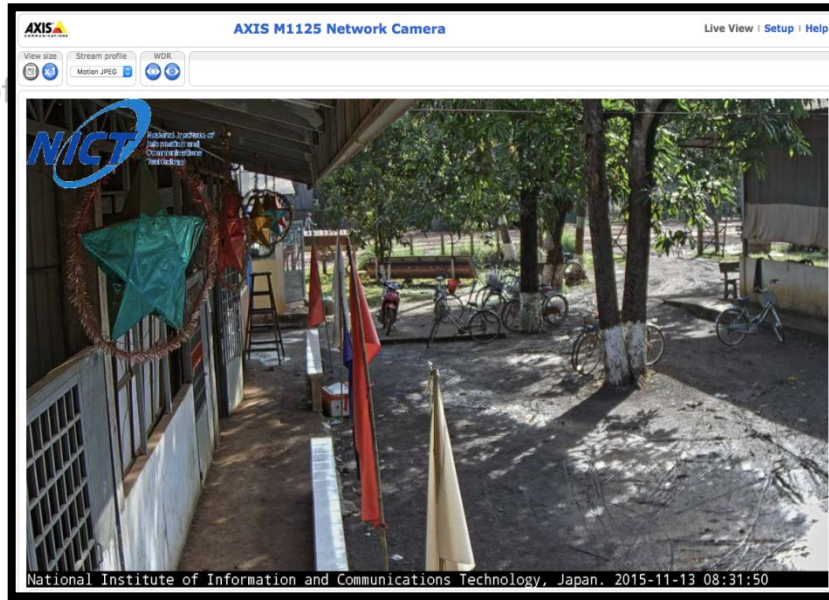


Internet Access

Network Installation Plan (As of Nov. 11, 2015)



Camera



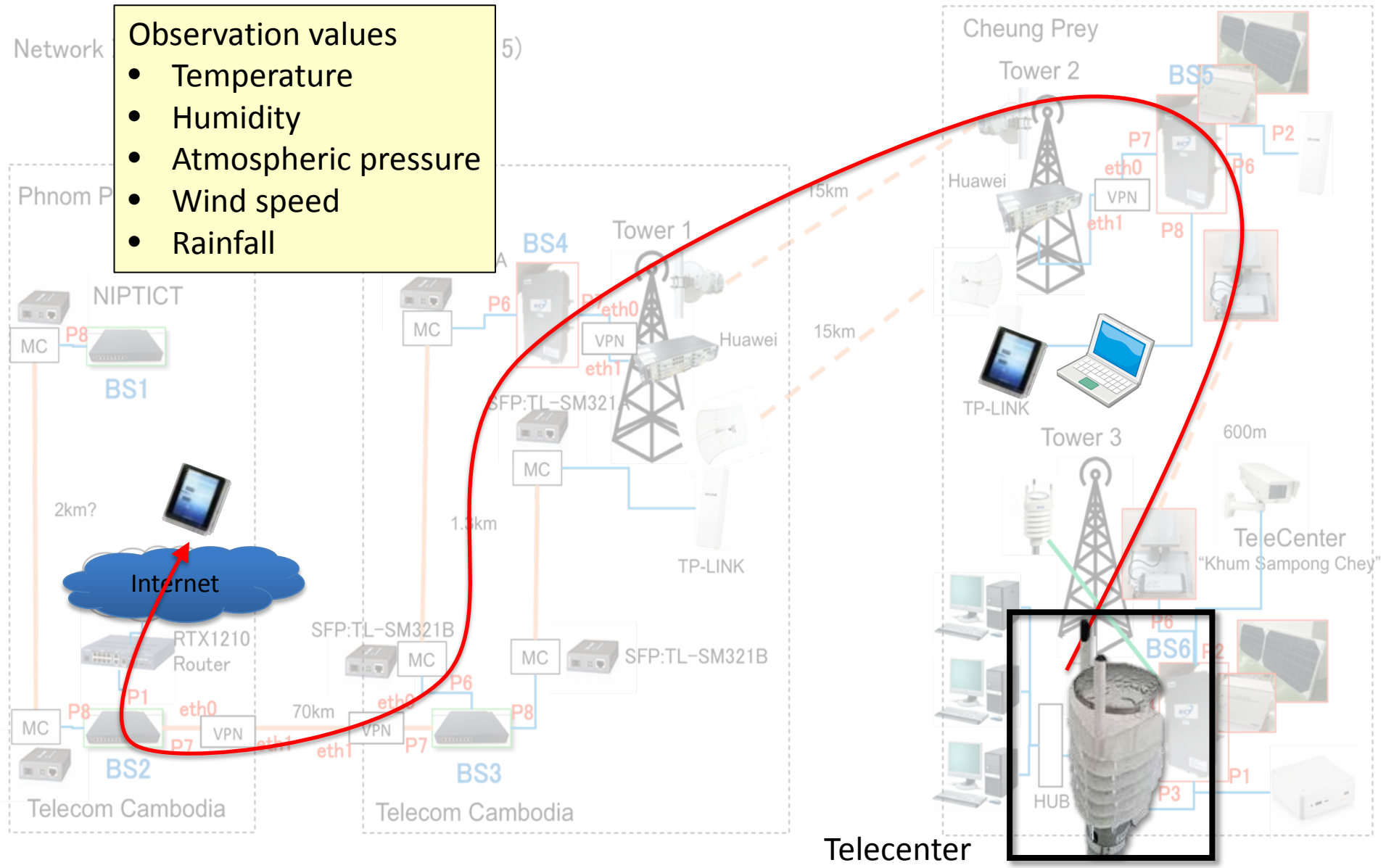
Network Installation Plan (As of ...)



Weather Monitoring

Observation values

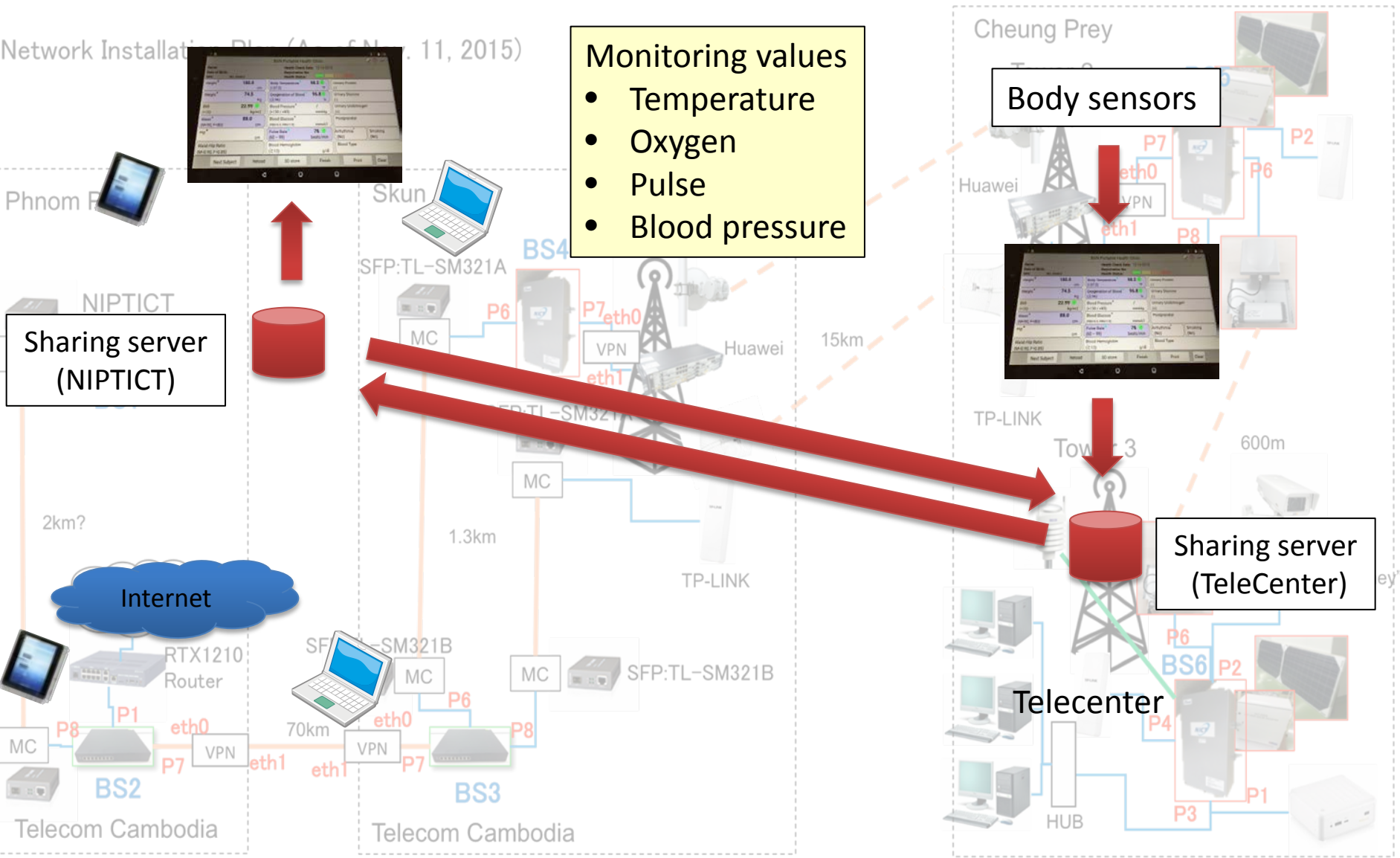
- Temperature
- Humidity
- Atmospheric pressure
- Wind speed
- Rainfall



Health Monitoring

Network Installation Plan (A... 11, 2015)

- Monitoring values**
- Temperature
 - Oxygen
 - Pulse
 - Blood pressure



Demo of Portable Health Monitoring



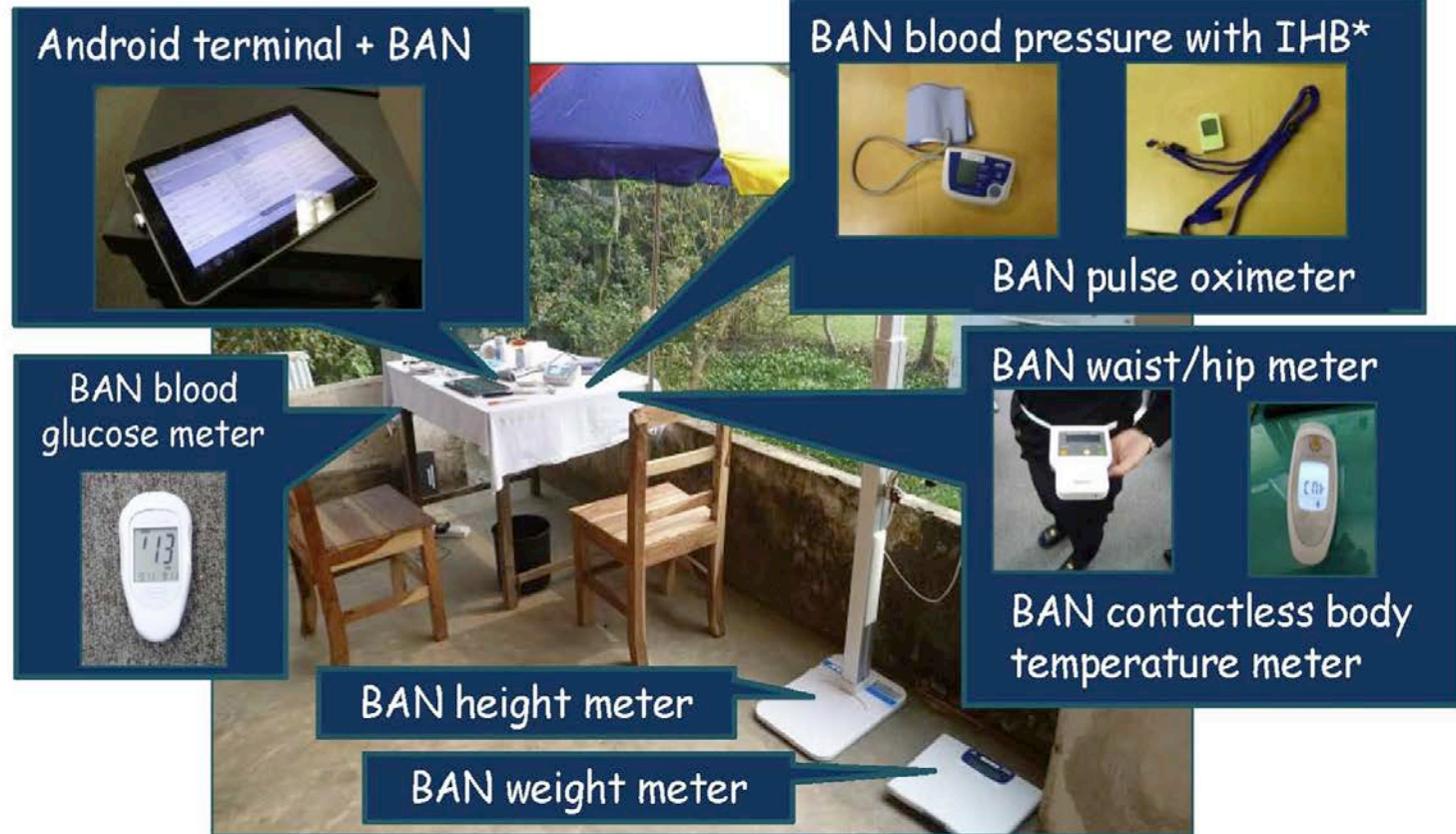
A person of Telecom Cambodia



A TeleCenter owner in a rural area

BAN-PHC Devices on Site

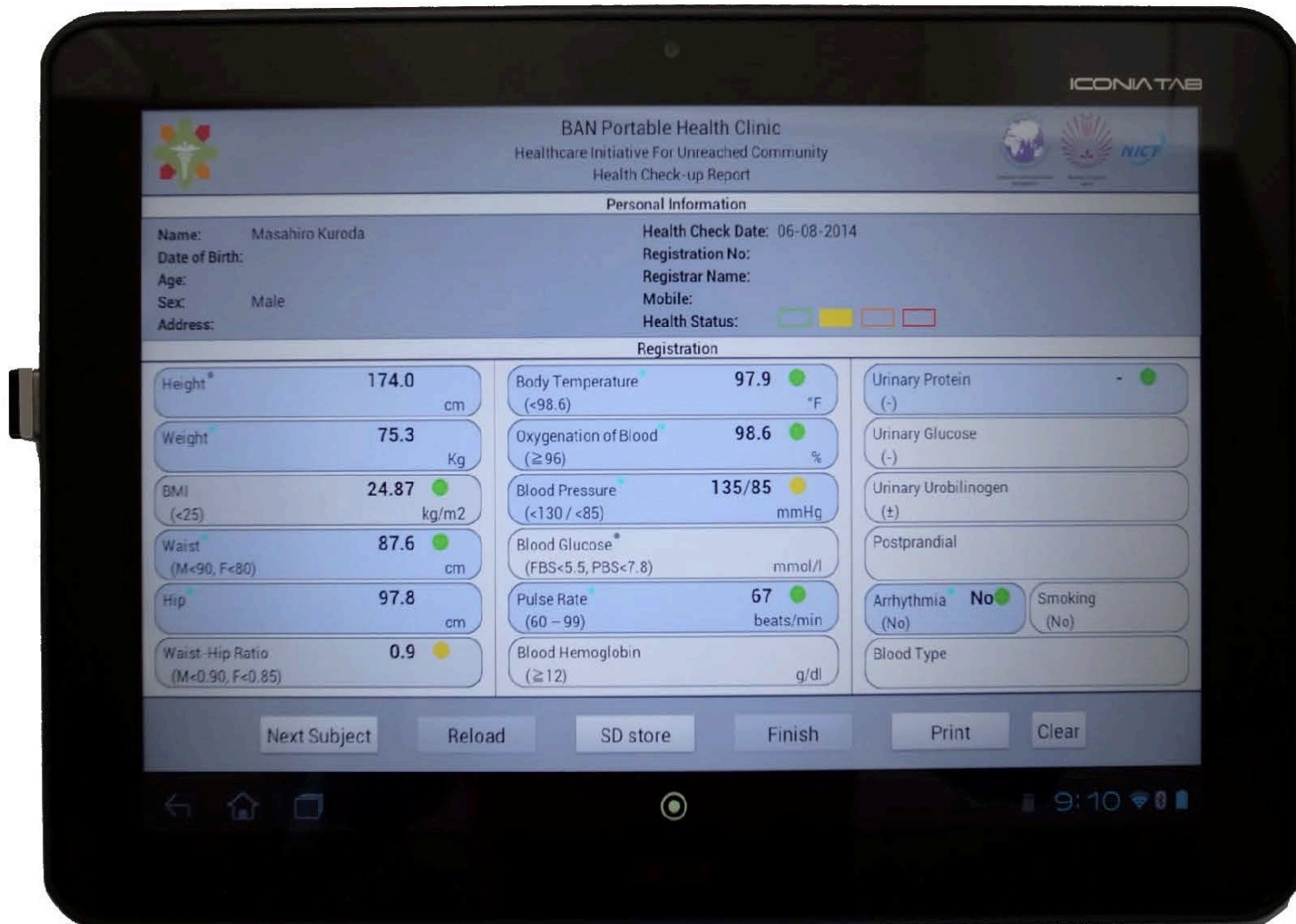
- Support International BAN Standards
- Plug-in any sensors following the open standards



*IHB: Irregular Heat Beat

BAN-PHC: Body Area Network Portable Health Clinic

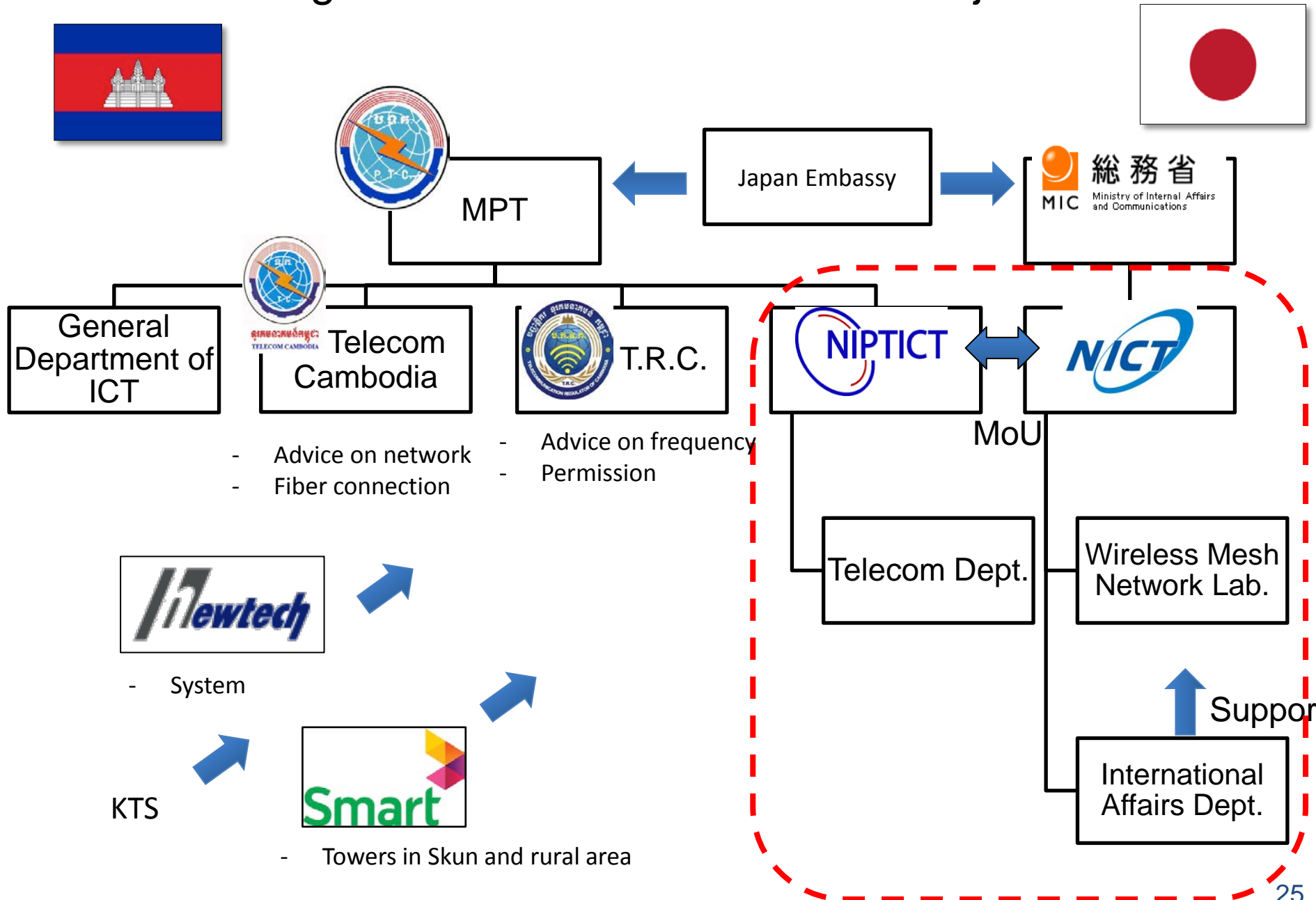
Android Tablet Screen in BAN-PHC



Applications

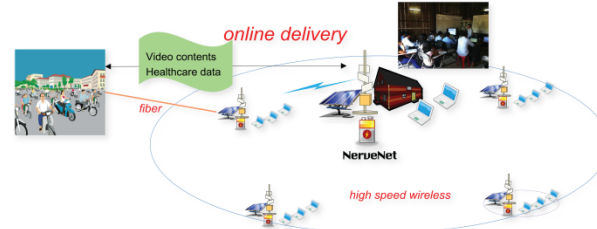
- Data sharing (OK)
- Internet access (OK)
- Camera (OK)
- Weather monitoring (OK)
- Health monitoring data transmission (Demo)
- in-village Wi-Fi phone & messaging
- Environmental monitoring

Organizational Structure of the Project

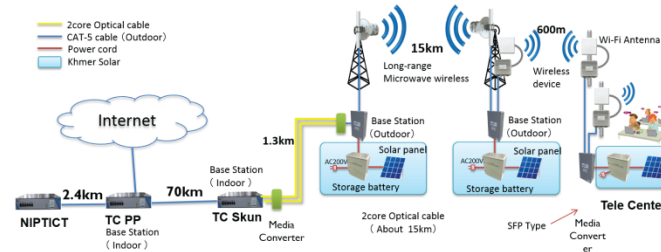


Vision

NerveNet could contribute to the networking of rural areas in Cambodia even if there are no electricity, realizing data sharing, voice call and messaging, and a variety of sensing applications for agriculture, healthcare, etc.

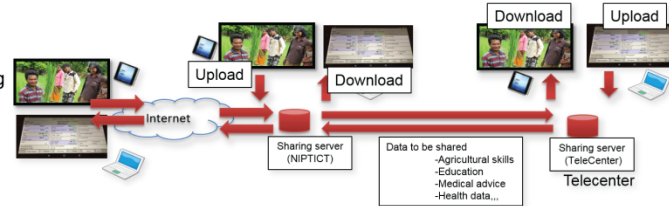


Network Configuration

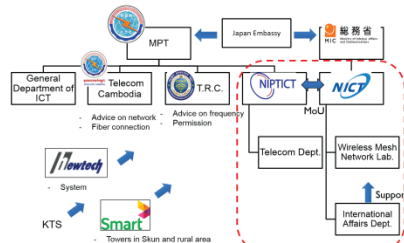


Applications

- Online file download & upload
- Internet access
- in-village Wi-Fi phone & messaging
- Environmental monitoring
- Weather monitoring
- Health monitoring



Organizational Structure of the Project



Thank you