



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

You Search Images Mail Drive Calendar Sites Groups More chamnan.meas@niptict.edu.kh |

NerveNet Network Plan

Made with Google My Maps

Indoor BS

- NIPICT
- OCM
- TC Skun
- DPT (district posts and telecom) at ...
- PPT(provincial posts and telecom) i...
- Tower
- New Telecenter

Outdoor BS

Others

- Tower near DPT
- Tower near Telecenter

Map

Satellite View

Street View

3D View

+

-

Map data ©2015 Google Imagery ©2015 TerraMetrics [Terr](#)

Phnom Penh ភ្នំពេញ

Krong Chbar Mon

Thnal Tottrieng

Krong Ta Khmau

Lvea Aem

Boeng Prea

Koh Dach

Rat Doeng

Oudongk

Longvek

Baek Chan

Phav

Tone Sap River

Khum Angkor Ban

Qlong

Boeng Thum

Prey Chhor District

Kampong Krabel

Kampong Cham

Kamchay Mear Cheung

Vườm Quốc gia Lô Gô Xa Mat

Svay Antor

Chrey

Kanchom

Chrey Prey

Boeng Rolieang Village

Prey Prov

Krong Prey Veng

Sokram

Kampong Trang

Kaoh Treng

Kaoh Samraong

Krong Suong

Kandal Chrum

Stueng Trang

Krouch Chhmar

Kampong Reang

Mekong River

Route 5

Route 11

Route 1440

Route 72

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 · [リンク](#)

Chealea Tele-Center

11.911285,104.927422

Sampong Chey Tele-Center

11.911285,104.927422

Chorb 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

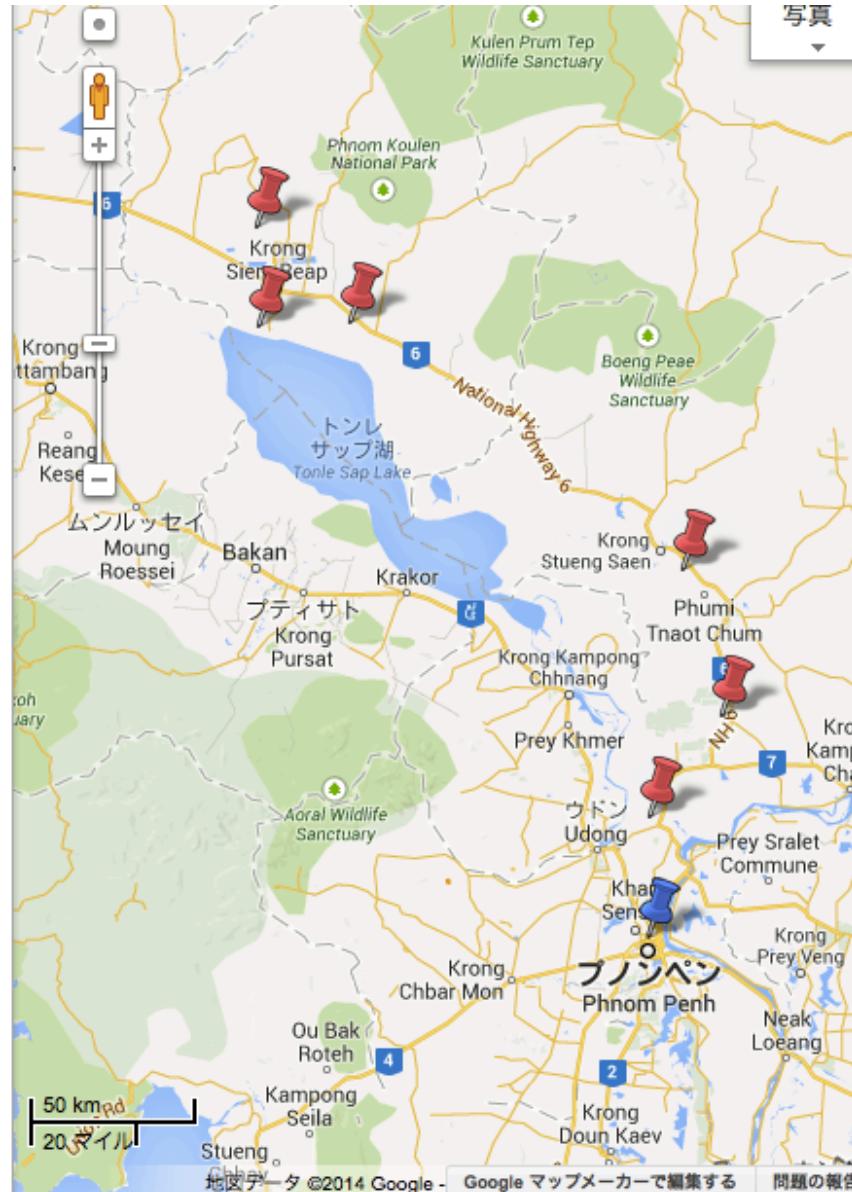
Chong Kneas Tele-Center

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



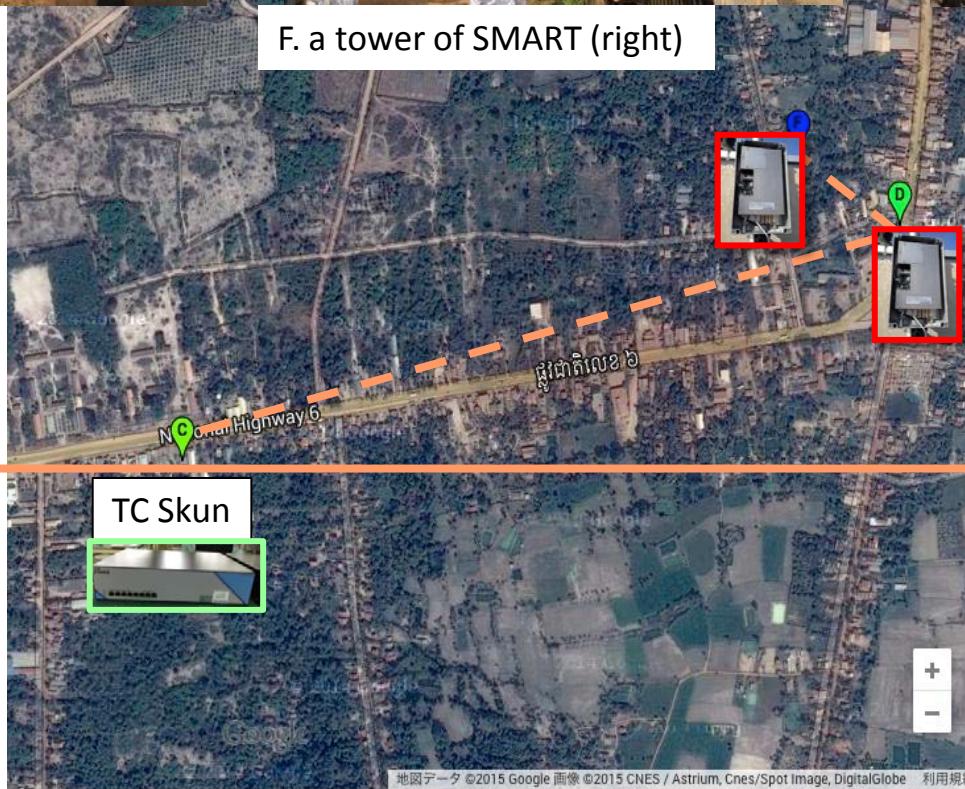
C. TC's station



F. a tower of SMART (right)



D. DPT



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

→ TC 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.



J: Local authority



K: Police station



G: TeleCenter (new place)



I: School



L: Health center
H: Tower

NIPICT , NICT Meeting discussion about site visit



Meeting with NIPICT



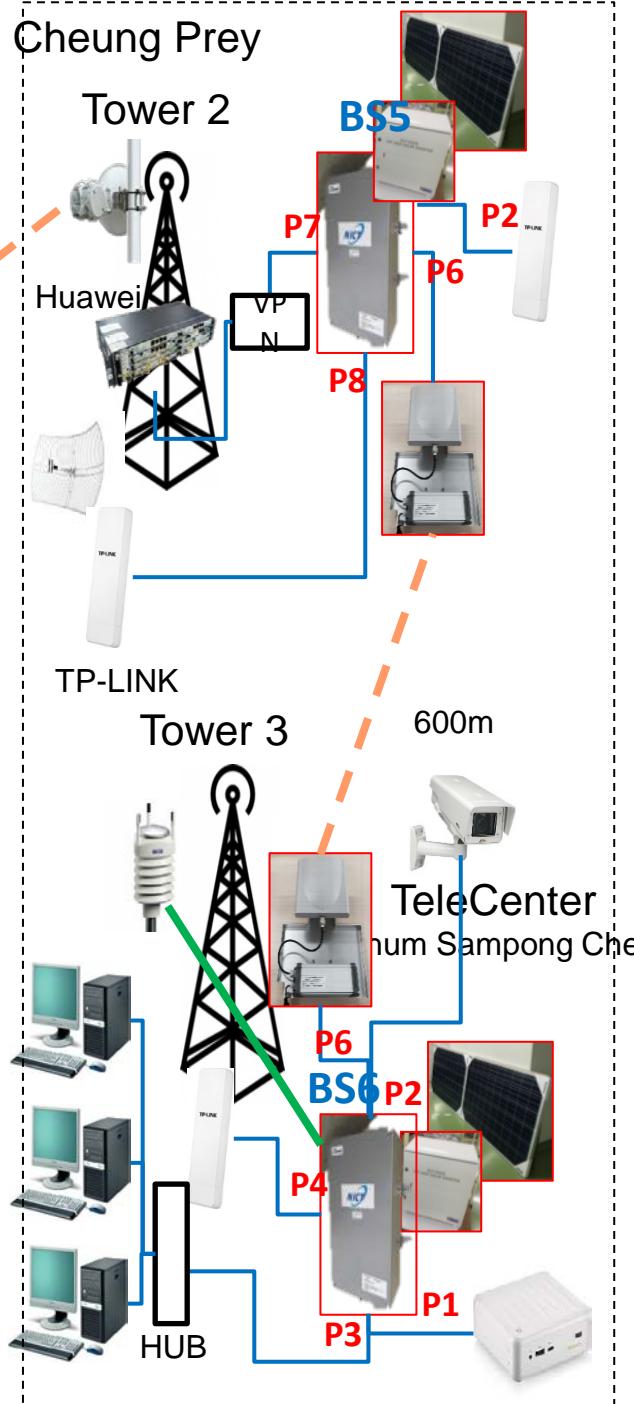
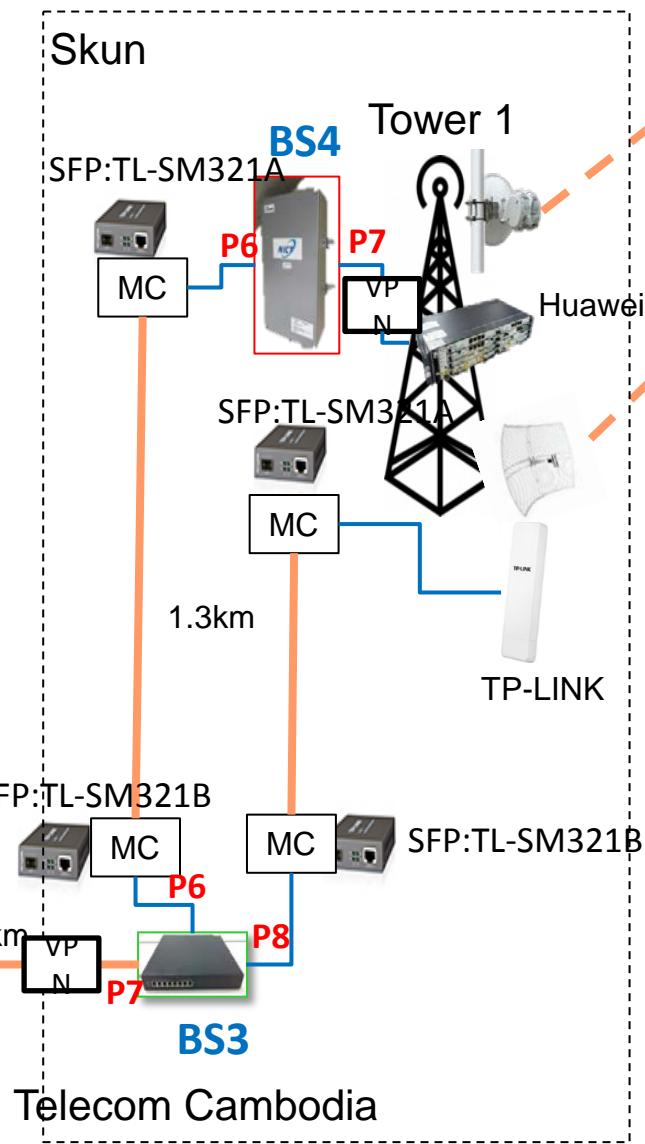
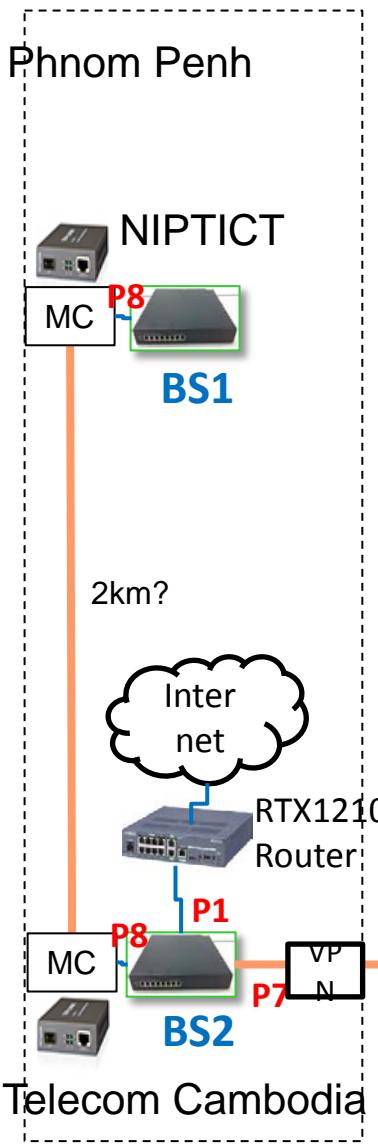
Kampong Cham Visit



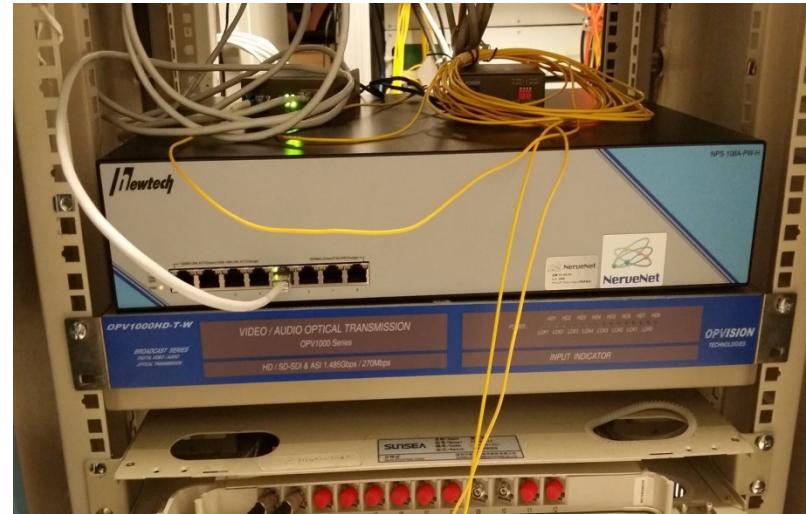
Meeting with Telecom Cambodia

II. Network Configuration

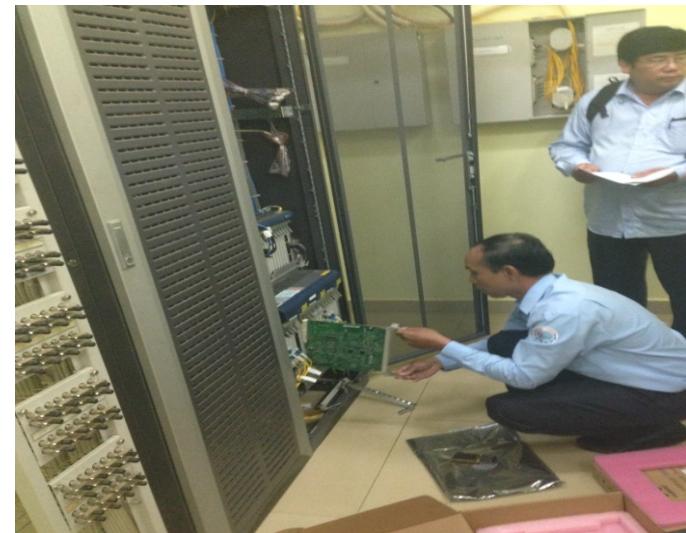
Network Configuration of NerveNet in Cambodia



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

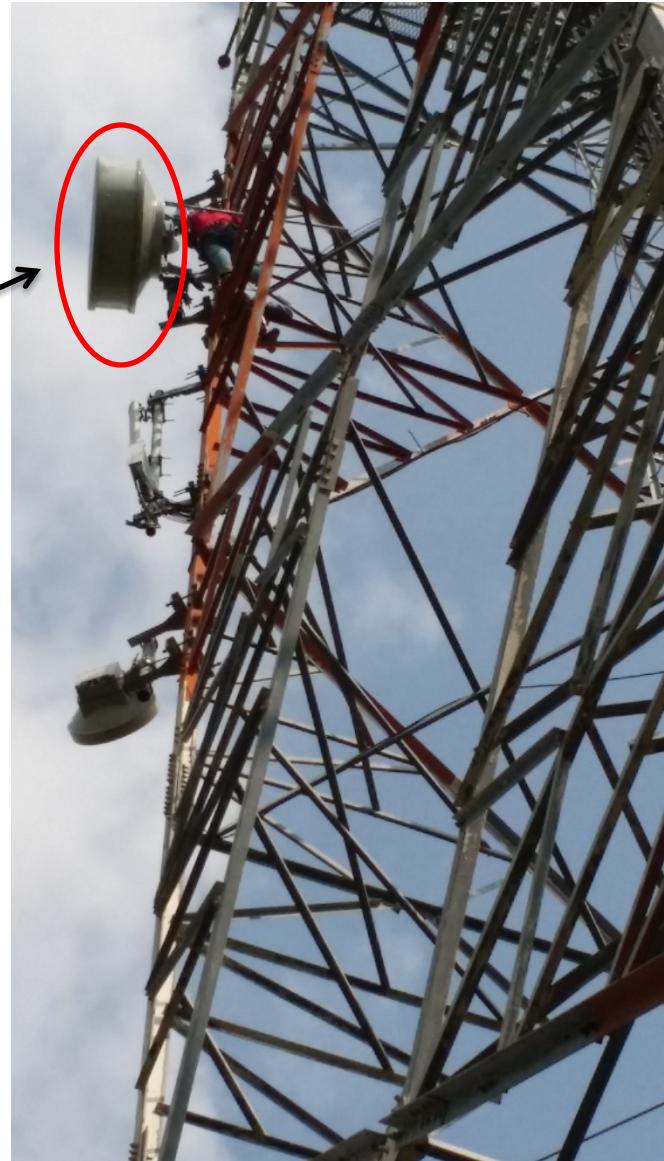
Installation MW Communication

Smart Tower 2 at Sampong Chey Site

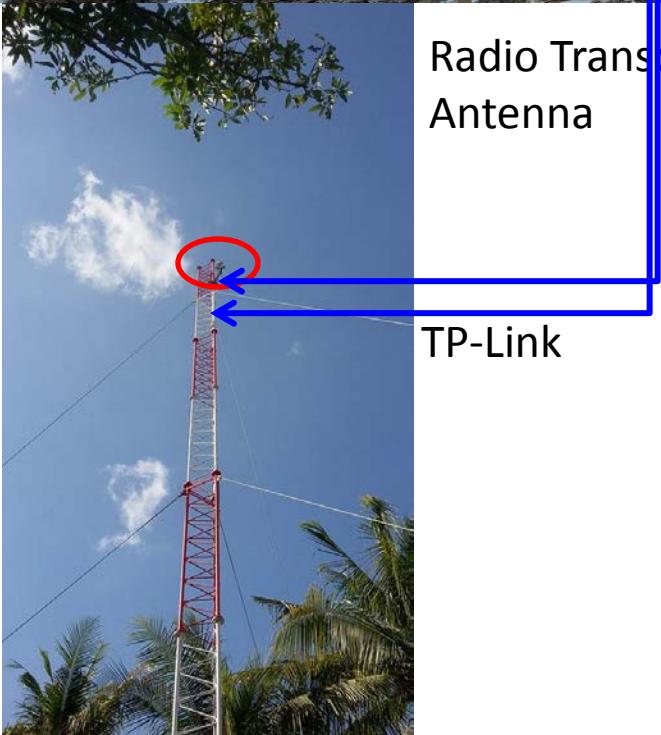


15 km

Smart Tower at SKUN 1



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



Solar Panel Installation



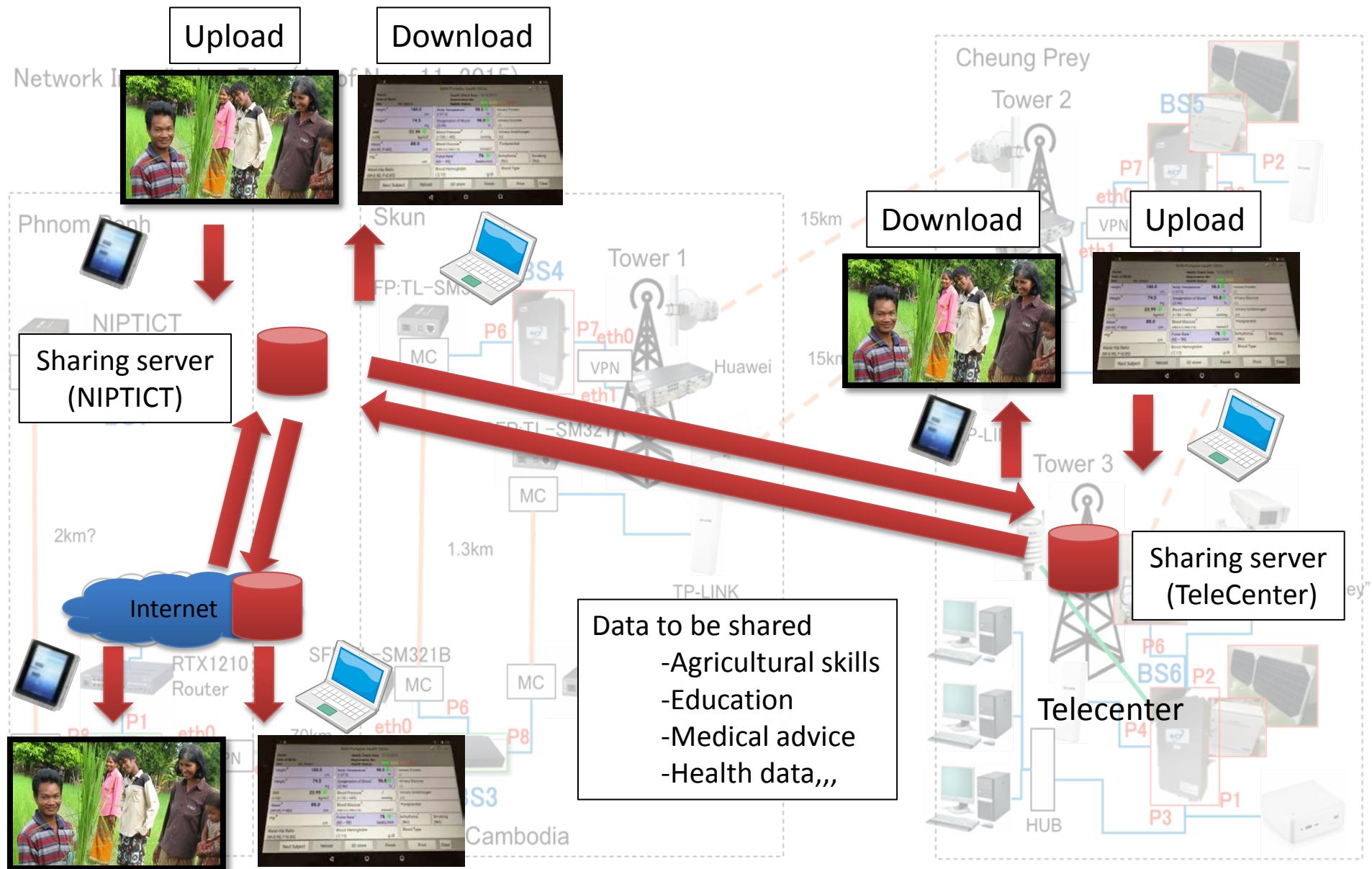
Smart tower 2

Smart tower 1

Power Cable layout at Tele-Center

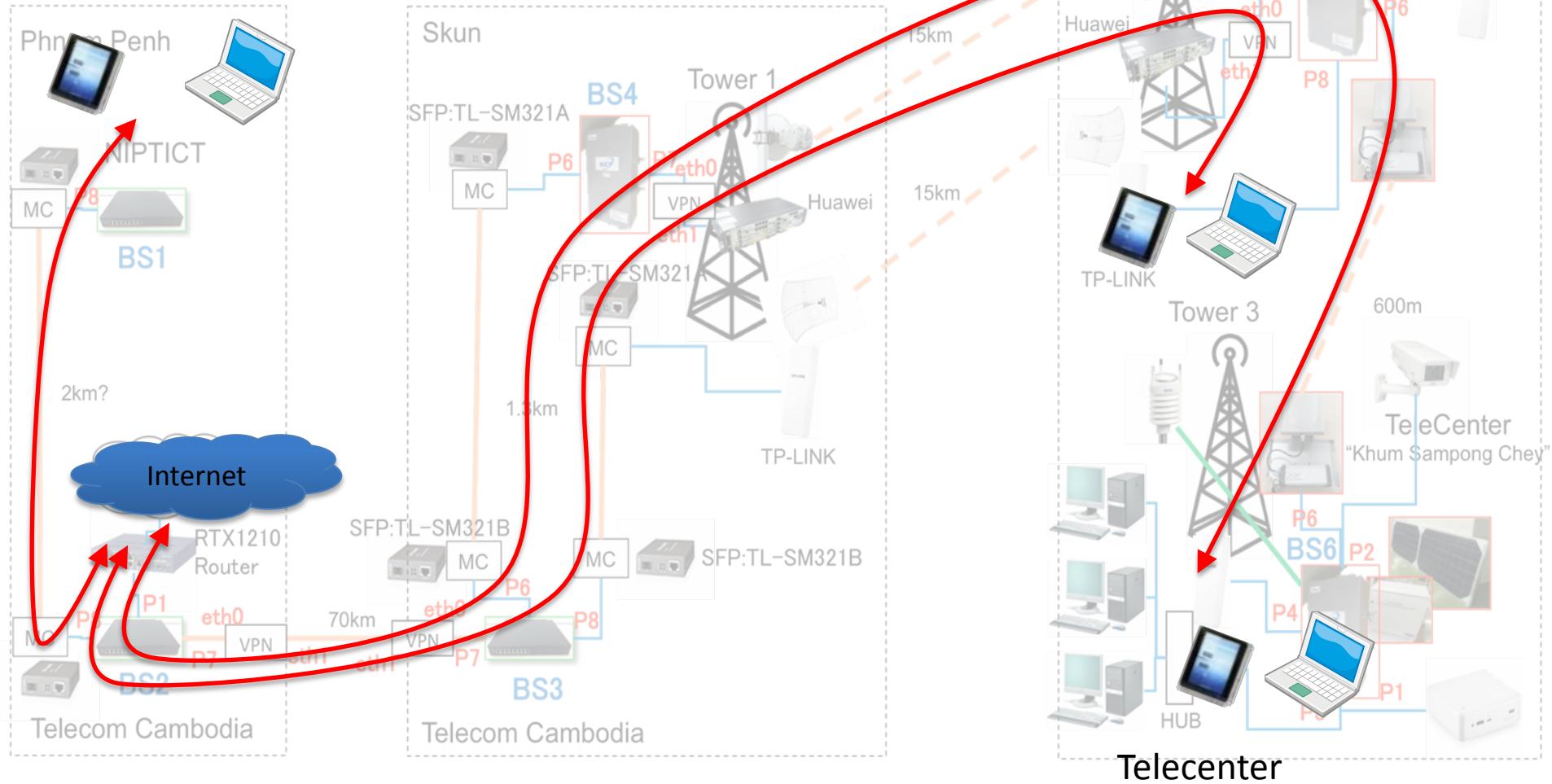
III. Applications

Data Sharing



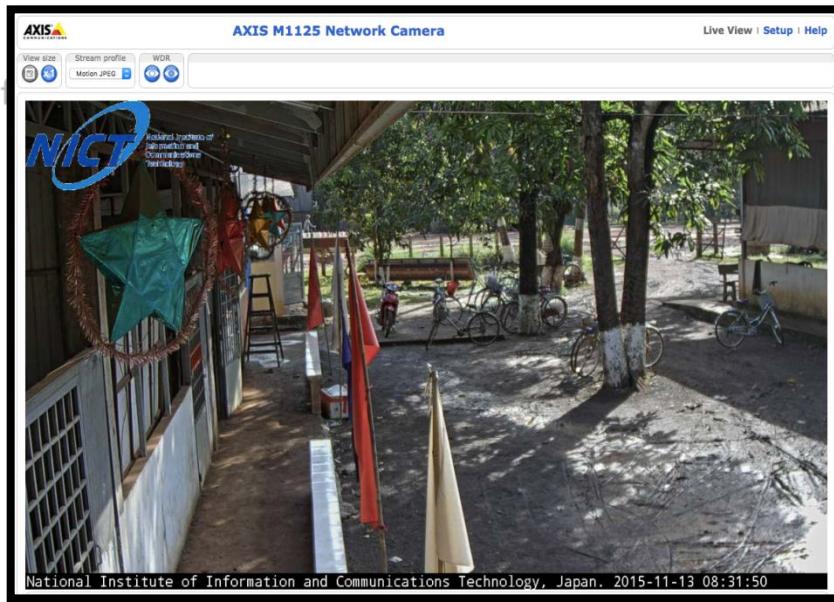
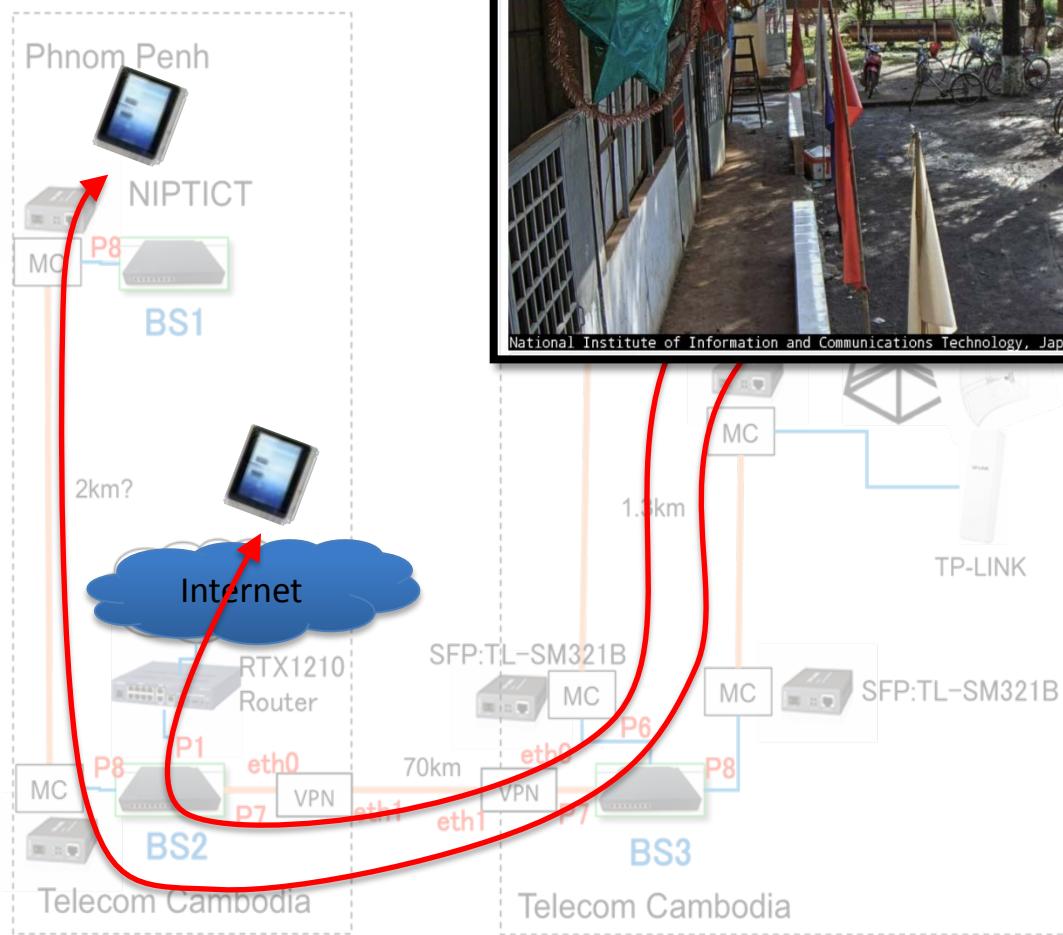
Internet Access

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

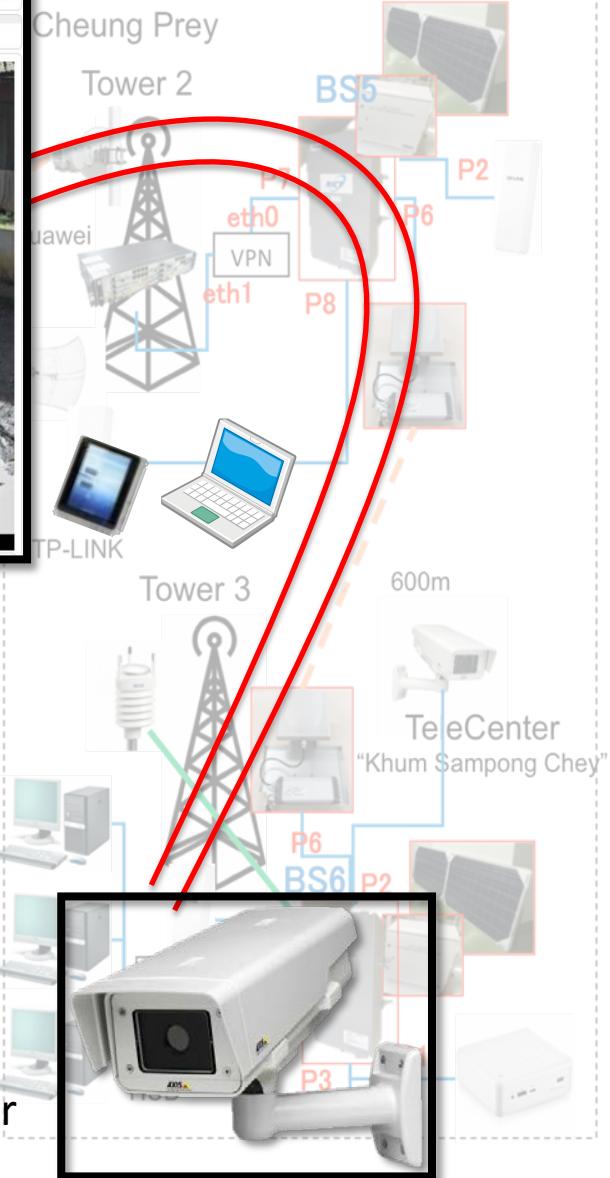


Camera

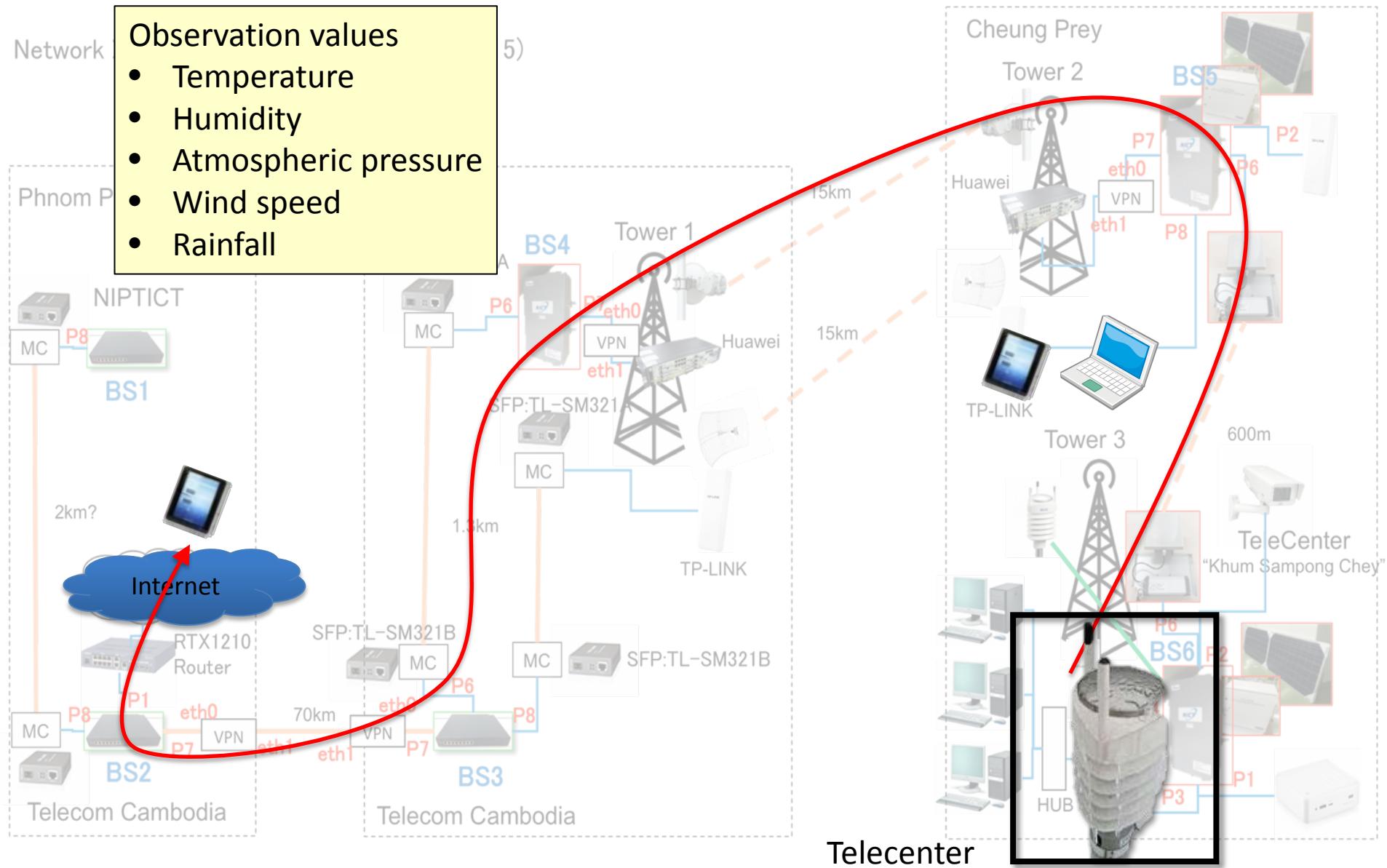
Network Installation Plan (As of 11/13/2015)



Telecenter

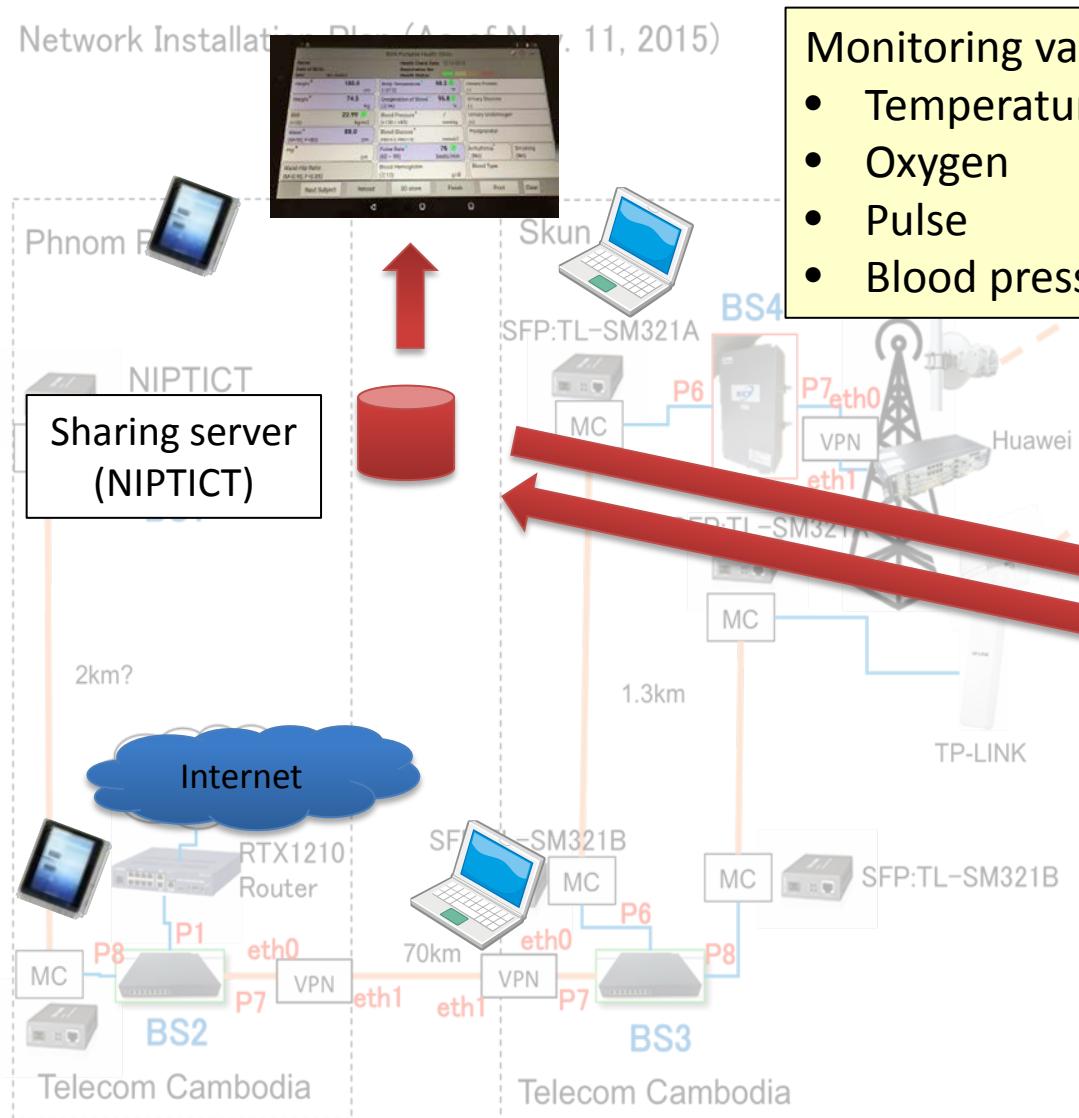


Weather Monitoring

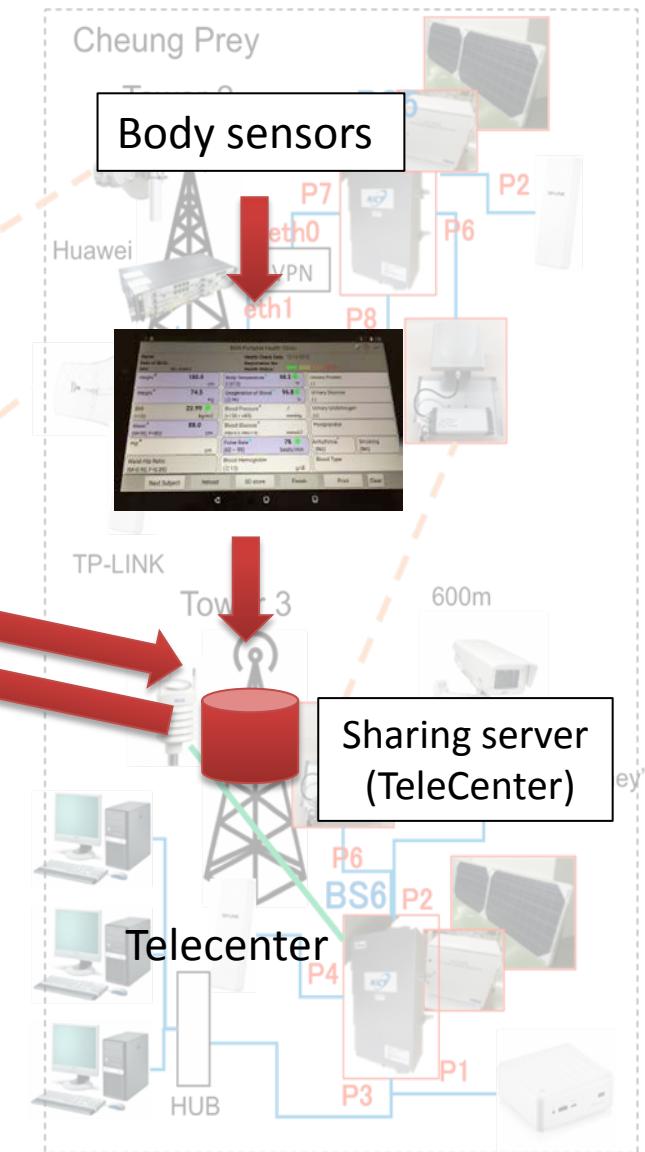


Health Monitoring

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



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



Demo of Portable Health Monitoring



A TeleCenter owner in a rural area



A person of Telecom Cambodia



Dr. Sethserey Sam, VP of NIPTICT, Cambodia

BAN-PHC: Body Area Network Portable Health Clinic

BAN-PHC Devices on Site

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

Android terminal + BAN



BAN blood pressure with IHB*



BAN pulse oximeter

BAN blood glucose meter



BAN waist/hip meter



BAN contactless body temperature meter

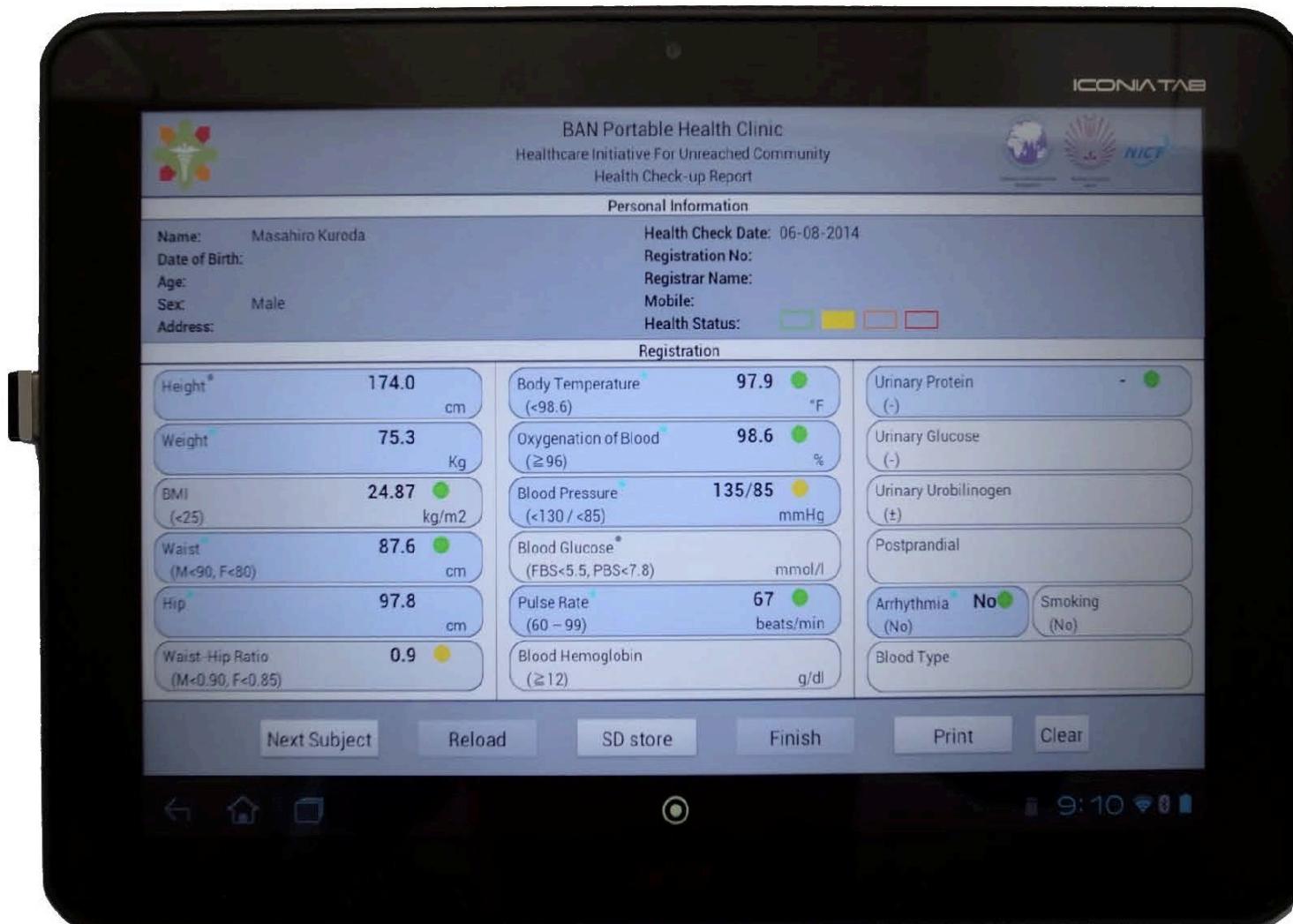
BAN height meter

BAN weight meter

*IHB: Irregular Heart Beat

BAN-PHC: Body Area Network Portable Health Clinic

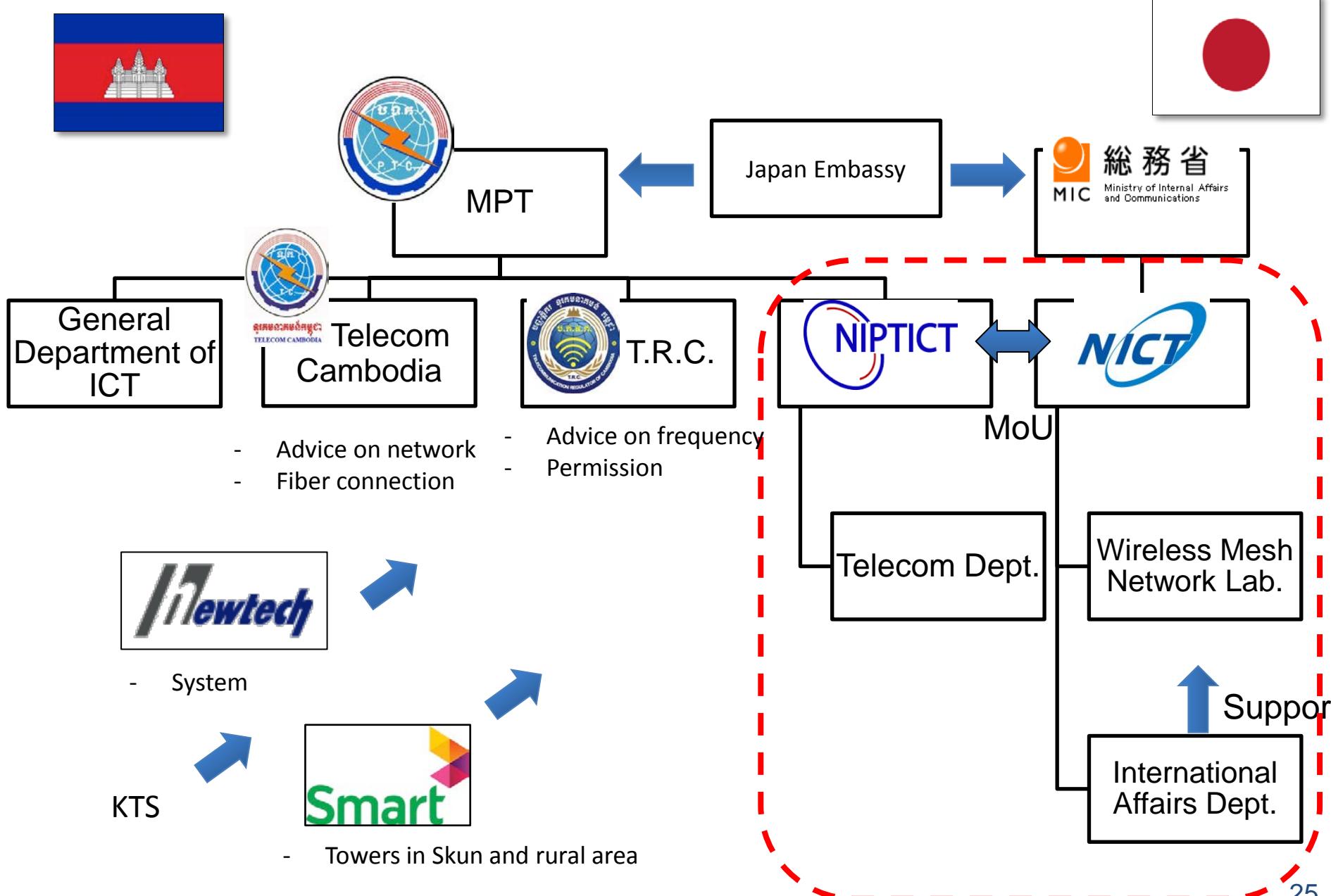
Android Tablet Screen in BAN-PHC



Applications

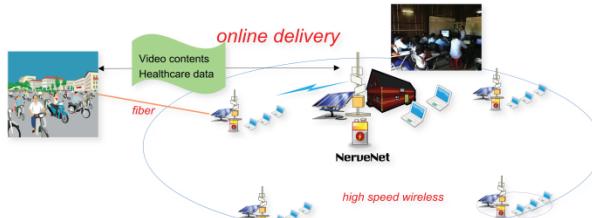
- Data sharing (OK)
- Internet access (OK)
- Camera (OK)
- Weather monitoring (OK)
- Health monitoring data transmission (Demo)
- in-village Wi-Fi phone & messaging
- Environmental monitoring

Organizational Structure of the Project

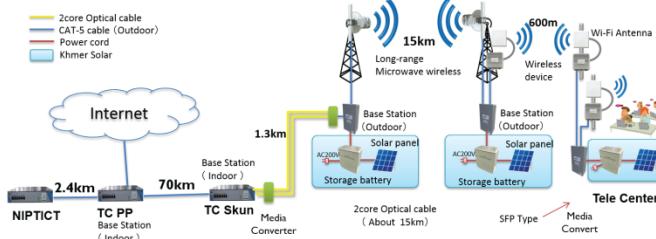


Vision

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.

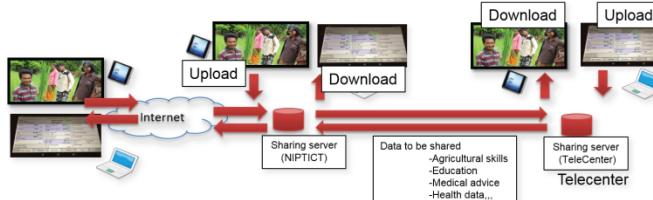


Network Configuration

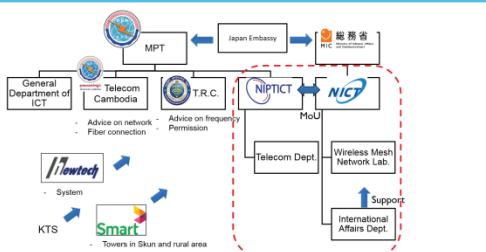


Applications

- 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