

One Month Training Video Conference Report

at Telemedicine Development Center of Asia
Kyushu University Hospital



by

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Faculty of Medicine Brawijaya University

Place on Mountain area at Malang City - East Java Indonesia

Have 1 main Academic Hospital (Saiful Anwar Hospital)

Have 6 mayor S1 degree 16 Medical Specialist

- Medical 4 Magister Program
- Nursing 1 Doctoral Program
- Dietitian
- Obstetrics
- Pharmacy
- Dental

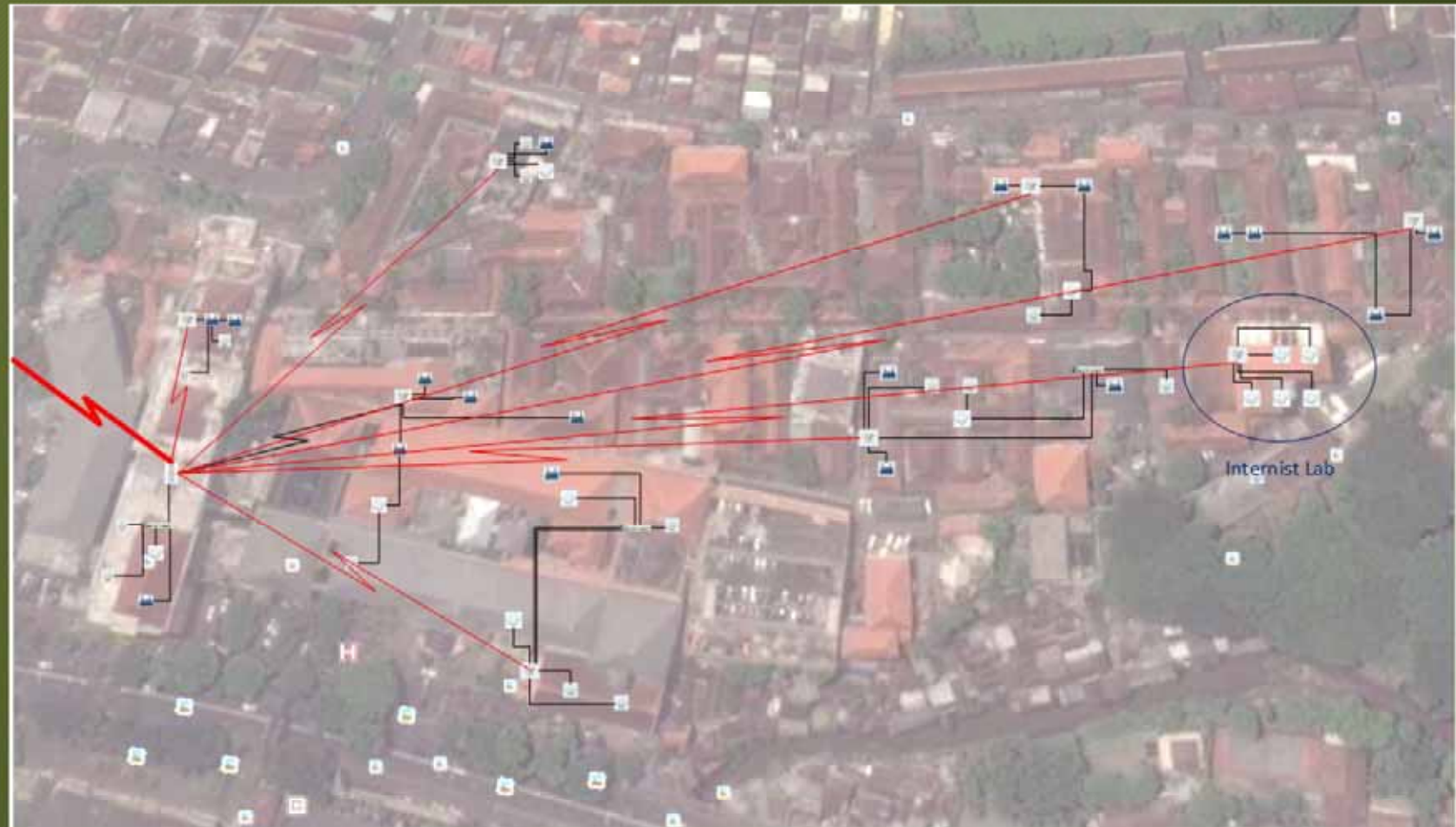


FMBU vs SA Hospital (Geographic Location)



FMBU vs SA Hospital (Network Connection)

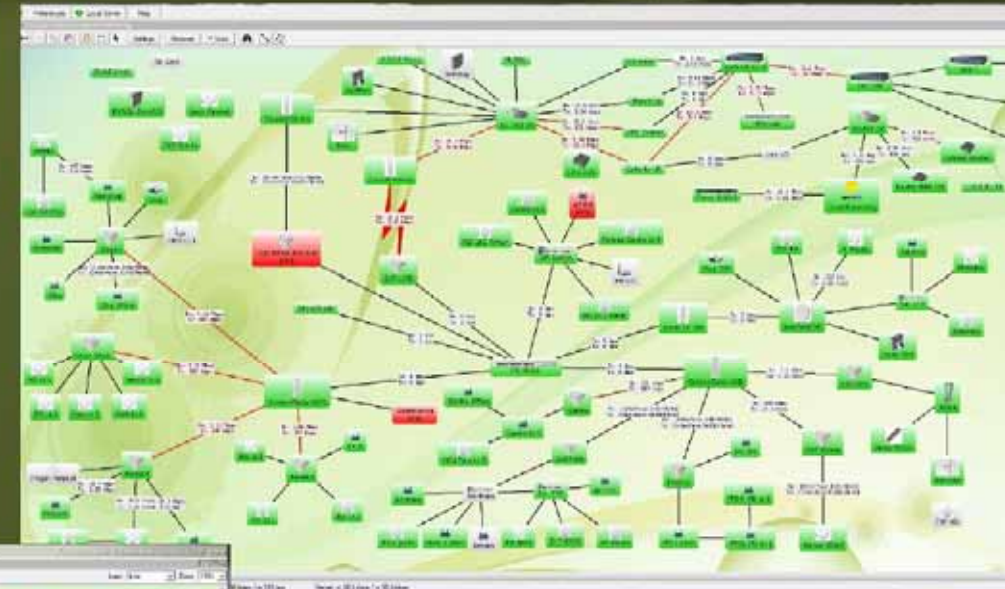
- Wireless link using Mikrotik device (OmniTik and RB SXT) 48Mbps link connection
- Distribute inside main hospital via Wifi (using 2 Omnitik and 12 RB SXT)
- 47 access point deploy at Hospital
- Internet at hospital supply from faculty
- Daily internet usage 25MBPS



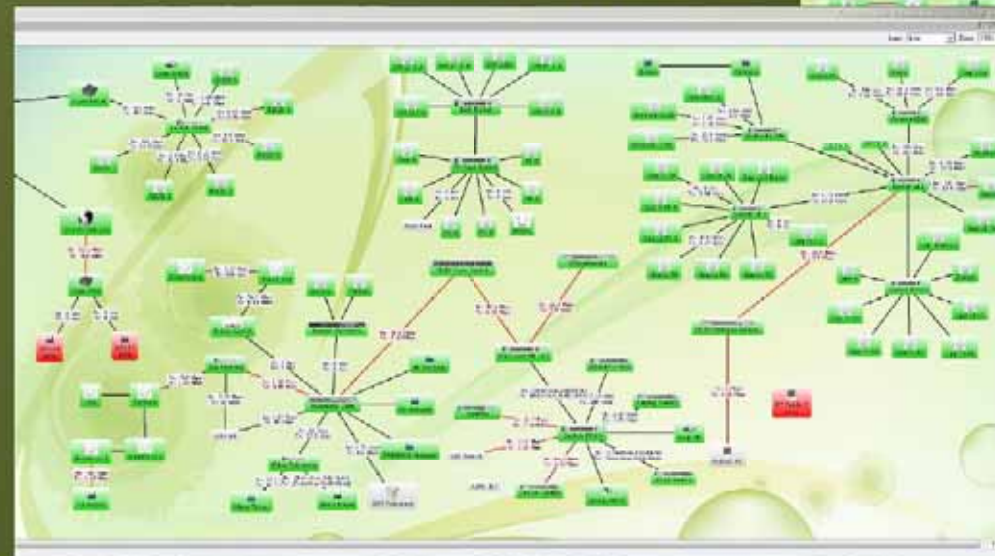
FMBU IT Human resource

Hospital Area

- 2 big network (Faculty and Main Hospital)
- Wifi backbone
- Single Wifi Management System
- 1 Chief unit Division
- 2 Network Engineer
- 1 Web Programmer
- 1 Database Engineer
- 1 Adm Staff



Faculty Area



FMBU Internet Connection

- 100 Mbps with University network that connect to INHERENT (Also with TIEN4) right now
- 30 Mbps With public Internet Service Provider (INDOSAT)
- Small internet with Speedy (2Mbps) for testing only



FMBU Video Conference System

- 3 Polycom QDX-6000 system
- 1 Polycom HDX-7000 with 1080i resolution license and also with Mini MCU License (4 Site)
- 1 Huawei ViewPoint 9030
- Dell core i5 Laptop + Logitech C920 (VidyoDesktop)
- Audio Mixer Behringer





What will FMBU do with VC

- We have 5 remote Teaching Hospital
- Video Conference is the reliable Technology to Utilized the internet connection not only browsing.
- Still choosing which VC system that fit with our problem
- Still need assistant and practice to held VC
- Still need more equiptment to complete the VC system



TEMDEC (Telemedicine Development Center of Asia)

- It's all begin from **SOCCER**..
- Started in 2002, when Korea-Japan co-hosted World Cup Soccer Games and these two countries were connected with a big optic fiber.
- Kyushu University Hospital joined it as a medical team.
- Expanded to whole Asia under the name of “Asia-Kyushu Advanced Medical Network (AQUA)” which was organized in 2005.
- Kyushu University Hospital formally opened a new office, Telemedicine Development Center of Asia (TEMDEC), in October 2008, and it takes over the role of AQUA to lead international telemedicine.



TEMDEC Main activity

- Remote medical education: Organizing programs and preparations for the event.
- Remote patient care: Tele-consultations and arrangements for international patient care.
- Development and application of new technology: For more connections and better images.
- Development of attractive contents: Consistent search for the new applications.
- Secretariat of Medical Working Group of Asia-Pacific Advanced Network: <http://apan.net/>
- Center for international exchange programs: Invitation of foreign medical doctors
- Visiting Engineer is the new activity

Device and Technology

- DVTS system Old VC system
- H.323 system (Polycom, Lifesize, Sony, etc)
- H.264 system (Vidyo system)
- So many VC peripheral (Video Audio Mixer, Video Swicther, Vidio Converter, etc.)



Video Conference Device



Polycom HDX9000

Dual Big Screen

Vidyo Room



High Res Camera



PTZ Camera Control



Video Conference SERVER (Sābā)



Vidyo Portal

Vidyo Router

Vidyo Gateway



Polycom RMX1500

Video Conference Device



All Medical Device Support IP and VC



Training Season



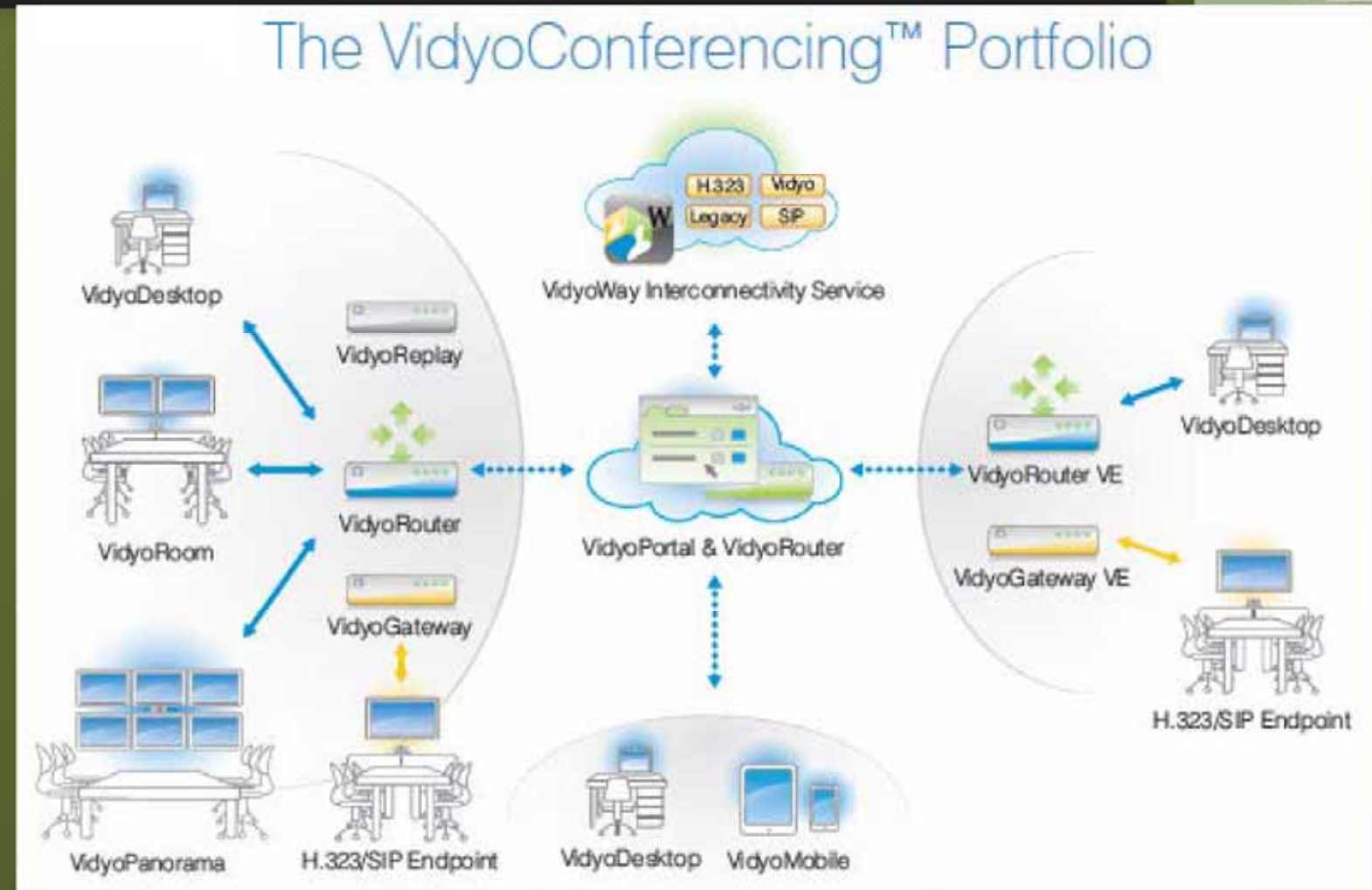
Vidyo System at TEMDEC

Server Side

- 2 unit Vidyo Portal
- 2 Unit Vidyo Router
- 1 Unit Vidyo Gateway

Client Side

- Vidyo Room
- Vidyo Desktop
- Vidyo Mobile



Benefit of Vidyo

- Software Economics
- Quality Collaboration
- Reliable Performance
- Global Scalability
- Investment Protection
- Seamless Integration

FMBU may borrow temporary Service of Video Conference Session from TEMDEC with Vidyo Desktop Software



Vidyo Implementation at FMBU

- It's very reasonable to connect Faculty and 6 teaching hospital using Vidyo Desktop because it's a software base VC
- All this system can manage and remote from one place
- No need exclusive Hardware, just PC with webcam, big Screen and microphone
- Problem (Movie presentation and Live video need special device, we need Vidyo Room)
- Finding the right Video Converter to manage input from other device so we can make Live session (live Endoscopy, live Surgery, etc.)

(Can FMBU borrow the Vidyo Room Device ??)

APAN-40 (Event During Training)

- So Many Testing with other Country before the Event
- TEMDEC Organize Medical WorkGroup during APAN40
- Help testing for APAN40 Indonesia session, with UI, UA, USU, UB???
- So many things and so many difference device across the country need some customized configuration each site
- The most difficult thing is make the audio level each site in almost the same level.
- We also try the live endoscopy session with songkla university, thanks to mr. Thanit.





Kagoshima Visiting

- Finally..... Shinkansen..... (Hakata to Kagoshima)
- Visit Prof. Nakamura at Dental Faculty of Kagoshima University
- Try to establish connection on dental issue via Video Conference
- We will go at 19 August just 3 day before come back to our country, many thanks to TEMDEC for serving us with this Trip.

Living in Japan



Transport

- Subway is the best transport with accurate time
- But the hardest way for the first time is find the right exit gate
- So many exit gate
- Airport to Tenjin station is Okay
- Tenjin station route to Access-Tenjin Apartment getting lost for 2 Hour at Night



Welcome Party

- Party to celebrate the Visiting engineer, visiting doctor from Rusia and farewell party for doctor from india
- Held on rooft top of Daimaru building... Beer Garden..
- All you can Drink.. All you Can Eat.... (Me..Ginger Tea it's Okay..)



Attractive Place and Event

- Firework at Ohori Park
- Dazaifu
- Fukuoka Tower
- Seaside Momochi Beach Park
- RoboSquare meet GUNDAM, Asimo, other Robot.
- And Many More



The Fukuoka Mosque

- Take 2 station from Kyushu University Hospital
- Near Hakozaki-Kyudaimae Station
- Walk 20 minute
- Friday Pray for Moslem



Food

- So Many food, good smell
- Hard to pick the right one
- The Bu-ta or Po-ku things (Pork)



My Own Recipe

What's Next in Future

- Monthly engineer meeting by Vidyo Desktop (Technical Talk)
- Sharing experience in so many VC Situation
- Join collaboration in the next future in TeleMedicine
- Helping FMBU to increase VC with teaching hospital
- Another Training maybe.....??

Matur Nuwun

Arigatou Gozaimasu

Terima Kasih

Thank You

