



RESULT REPORT

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GENERAL INFORMATION

- 1. Duration:** 1 month, 03/10 – 03/11/2015
- 2. Location:** Telemedicine Development Center of Asia, Kyushu University Hospital, Fukuoka, Japan
- 3. Objectives:**
 - 1) How is the telemedicine event realized;
 - 2) Required quality level for telemedicine;
 - 3) Teleconferencing systems;
 - 4) Technical preparations;
 - 5) How to work on problems;
 - 6) Test connection to our hospital;



TEMDEC' MAIN ACTIVITIES



Telemedicine Development Center of Asia (TEMDEC) was established in 2008 with 6 activities:

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

TELECONFERENCE SYSTEM IN TEMDEC

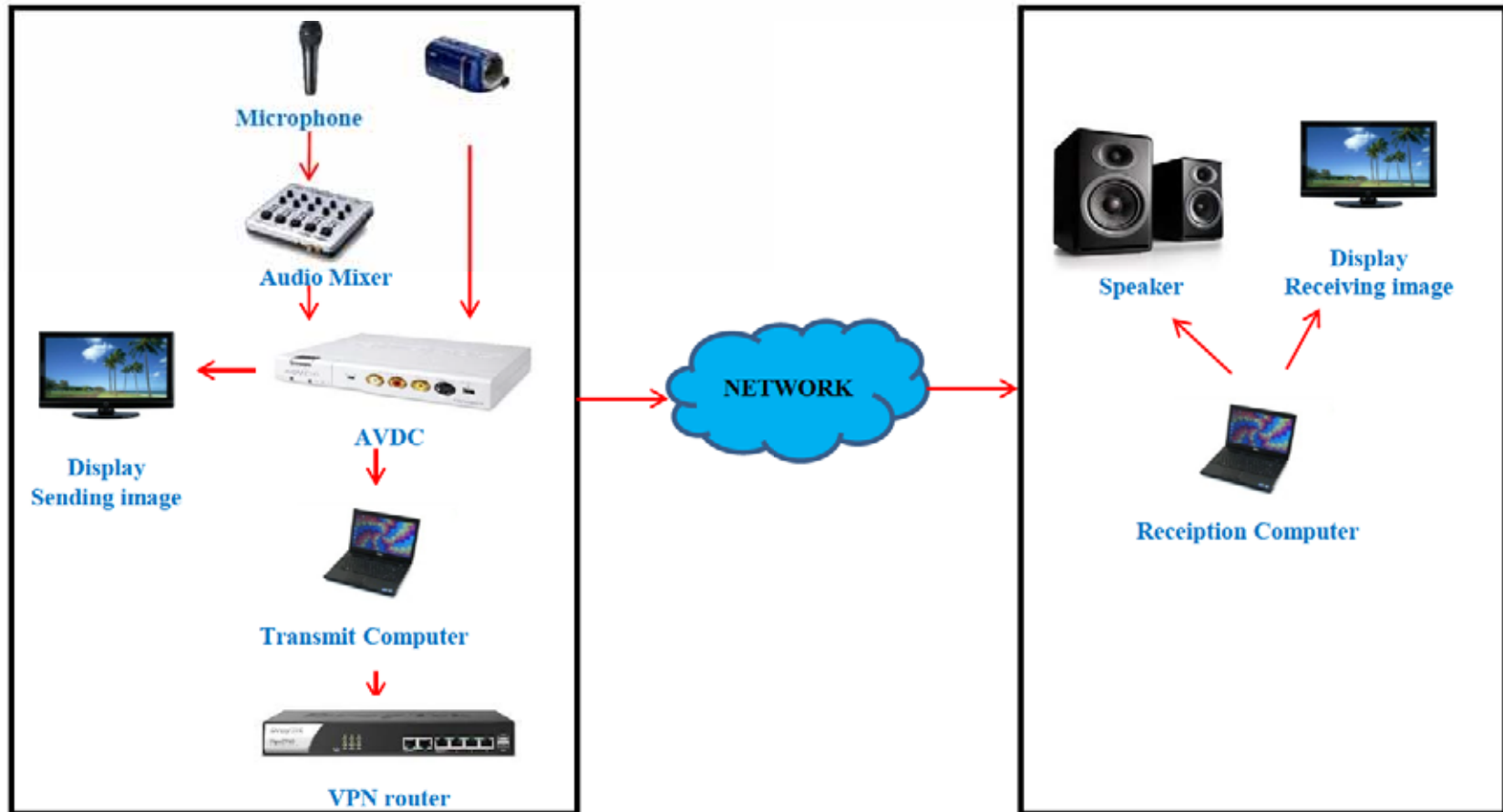


QUALITY REQUIREMENT

- 1) System has ability to adapt to all site
- 2) High quality transmitted images (same original source)
- 3) Low bandwidth
- 4) Low cost
- 5) Easy to use
- 6) Connect much more point
- 7) Minimal time delay

TELECONFERENCE SYSTEM IN TEMDEC

DVTS



TELECONFERENCE SYSTEM IN TEMDEC



DVTS

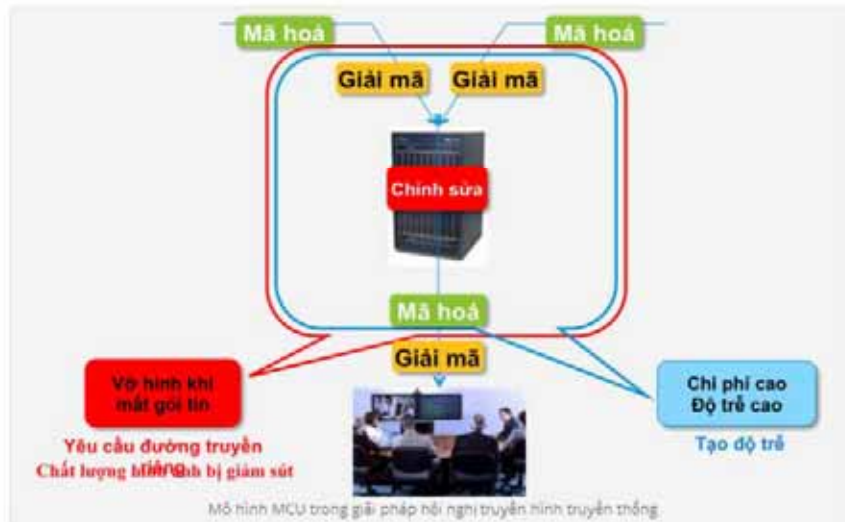
- Advantages:

- + High quality transmitted images (same original source)
- + Equipment is simple and cheap.
- + Minimal time delay

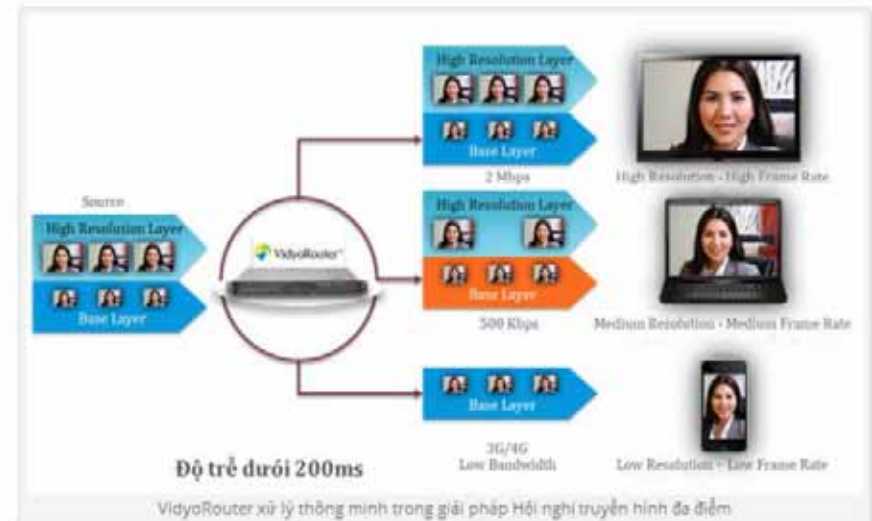
- Disadvantage:

- + High bandwidth (30Mbps)
- + 1394 portal: require
- + Difficult install (Engineer require)

VIDYO



Teleconference configuration before



Vidyo system

TELECONFERENCE SYSTEM IN TEMDEC



VIDYO

Advantage:

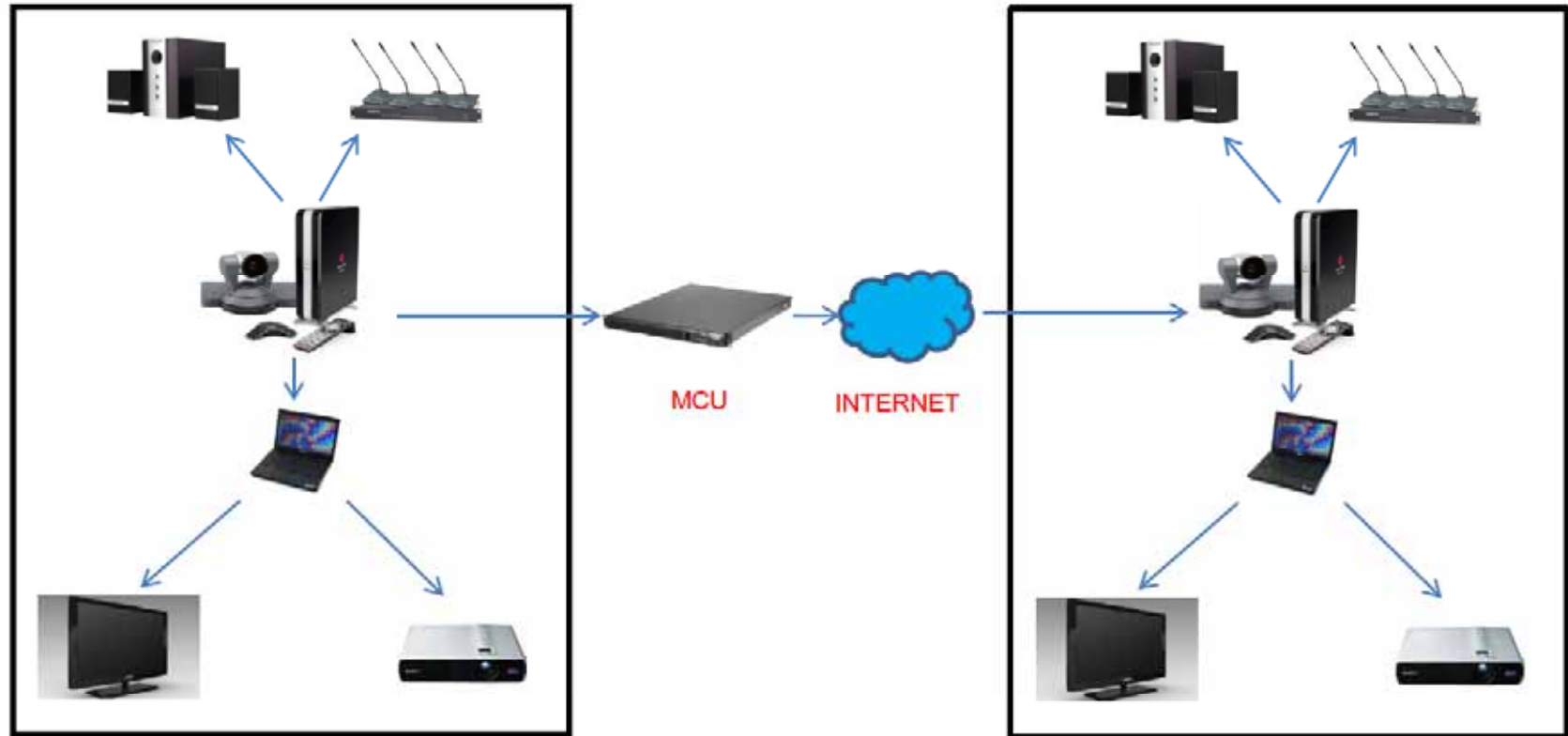
- Technology:
 - + I-cloud help extend faster
 - + Connect VidyoRouter to each other can increase site
- Endpoint:
 - + Support: software, hardware
 - + Easy to install on PC, Mobilphone
- Internet:
 - + FTTH
 - + ADSL
 - + 3G
 - + Bandwidth: 6Mbps/4Mbps
 - + Public IP: not require

Disadvantage:

- Sharing movies (Vidyoroom require)

TELECONFERENCE SYSTEM IN TEMDEC

H.323



H.323 system configuration



TELECONFERENCE SYSTEM IN TEMDEC



H.323

Temdec		Bach Mai Hospital	
Hardware	Software	Hardware	Software
<ul style="list-style-type: none">- MCU:+ Polycom RMX 1500; HD, 4Mbps, 12 site.+ Cisco 5300, HD, 4Mbps, 20 sites- Endpoint:+ Polycom HDX9001;+ Sony PCS-XG80 (x2);+ Lifesize Team HD220;+ Cisco SX20	<ul style="list-style-type: none">LifesizeSoftphone (x20):SD/HD,2Mbps/30fps/H.264/1080p	<ul style="list-style-type: none">- MCU:+ Polycom RMX1000; SD/HD (12/6 site)- Endpoint:+ Polycom HDX9000;+ Sony PCS-XG80	<ul style="list-style-type: none">People + Contend

TELECONFERENCE SYSTEM IN TEMDEC



H.323

- Advantage:
 - + Easy install, connect and control
 - + Audio, Video quality is very well
- Disadvantage:
 - Hardware is expensive: MCU, Endpoint

TELECONFERENCE SYSTEM IN TEMDEC



TECHNICAL PREPARATIONS

Every Teleconference need to Test, before:

- + 1 week
- + 1 day
- + 1 hour

About:

- + Internet
- + MCU
- + Endpoint

TELECONFERENCE SYSTEM IN TEMDEC



HOW TO WORK ON PROBLEM

- + MCU: backup MCU
- + Endpoint: connect from Microphone, Speaker to endpoint
- + Internet: backup Internet , Test many time



TELECONFERENCE SYSTEM IN TEMDEC



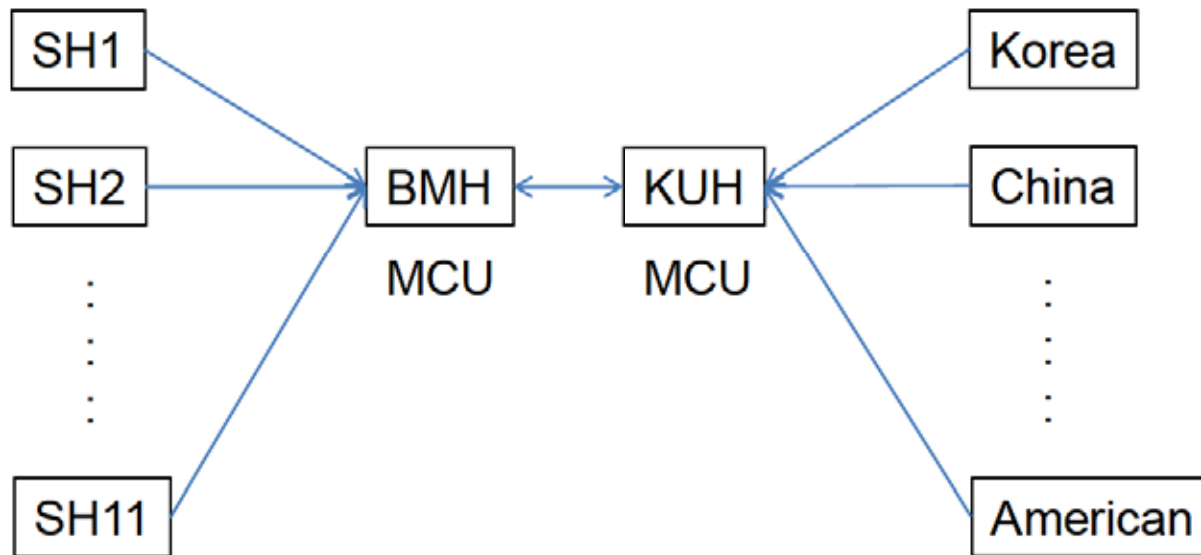
CONNECT TO OUR SITE

- Build detail program
- Participant ' mailing list will be set and share to everyone from preparing
- Equipment and Internet test
- Sending presentation to our site
- Sending presentation to Temdec (PPT, A4)

MY ACHIEVEMENT

- 1) Connect from H.323 system to Vidyo system
- 2) Contend sharing with high frame rate
- 3) Administration H.323 system
- 4) Administration Vidyo system
- 5) Preparing event
- 6) Training human resource procedure to have professional engineers

1) Connect from Satelite hospital of Bach Mai to Temdec



SH: Satelite Hospital



ORIENTATION IN THE FUTURE



- 1) Connect from Satellite hospital of Bach Mai to Temdec
- 2) Support Satellite hospital of Bach Mai come to Temdec
- 3) Organize Teleconference much more to share experience

SOME PICTURES



SOME PICTURES



SOME PICTURES





Thank you