TEMDEC
Telemedicine Development Center of Asia

ONE MONTH TRAINING REPORT

TEMDEC
07 Sep 2017

General information

- Name: Pham Ngoc Dao (Mr.)
- Ho Chi Minh City University Medical Center Hospital
- Duration: One month, from14-Aug-2017 to 08-Sep-2017
- Location: Telemedicine Development Center of Asia, Kyushu University Hospital, Fukuoka, Japan.
- Contents of training :
  - How the telemedicine event is realized
    (Flow of all staff: doctors, engineers, coordinators and all
  - Required quality level for telemedicine
  - Teleconferencing systems
  - Technical preparations
  - How to work on technical problems

Our Hospital

BRANCH #1
THE MAIN BRANCH
- General Hospital
- 910 beds
- 19 operating rooms

Branch #2
Polyclinic
Otorhinolaryngology
- Obstetrics - gynecology
- 60 beds
- 4 operating rooms

BRANCH #3
TRADITIONAL MEDICINE HOSPITAL
- 30 beds

UMC
HOANG ANH GIA LAI HOSPITAL
- General Hospital
- 200 beds
- 6 operating rooms

Our Hospital

OUR TEAM

TOTAL STAFF: **2,917**

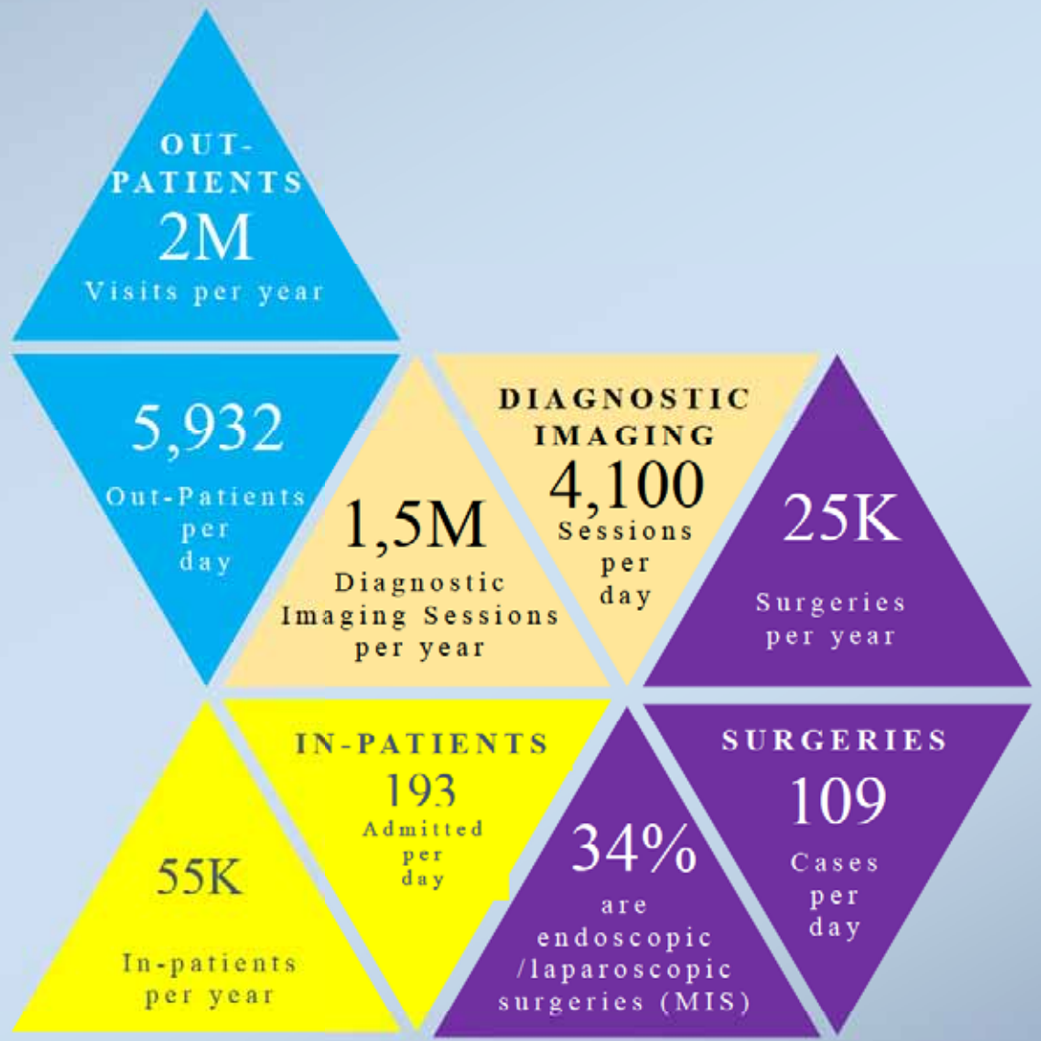
Our Hospital

Operating room

Our Hospital

Umc in numbers

SOME OF OUR ACHIEVEMENTS SO FAR



Our Hospital

In-patient department

Our Hospital

Tons of training activities

Our Hospital

Umc data center

Umc-Conference Equipment

Camera
Sony
SRG-120DH

Encoder
PCS
XG100S

Meeting hall

Tivi

Projector

Encoder Sony

NETWORK 1G

Encoder Sony

Operating room

Umc-Conference system

Temdec teleconferences system

Vidyo System

2 pcs Vidyo Room

Vidyo Router

Vidyo Gateway

Vidyo Portal

Vidyo Router

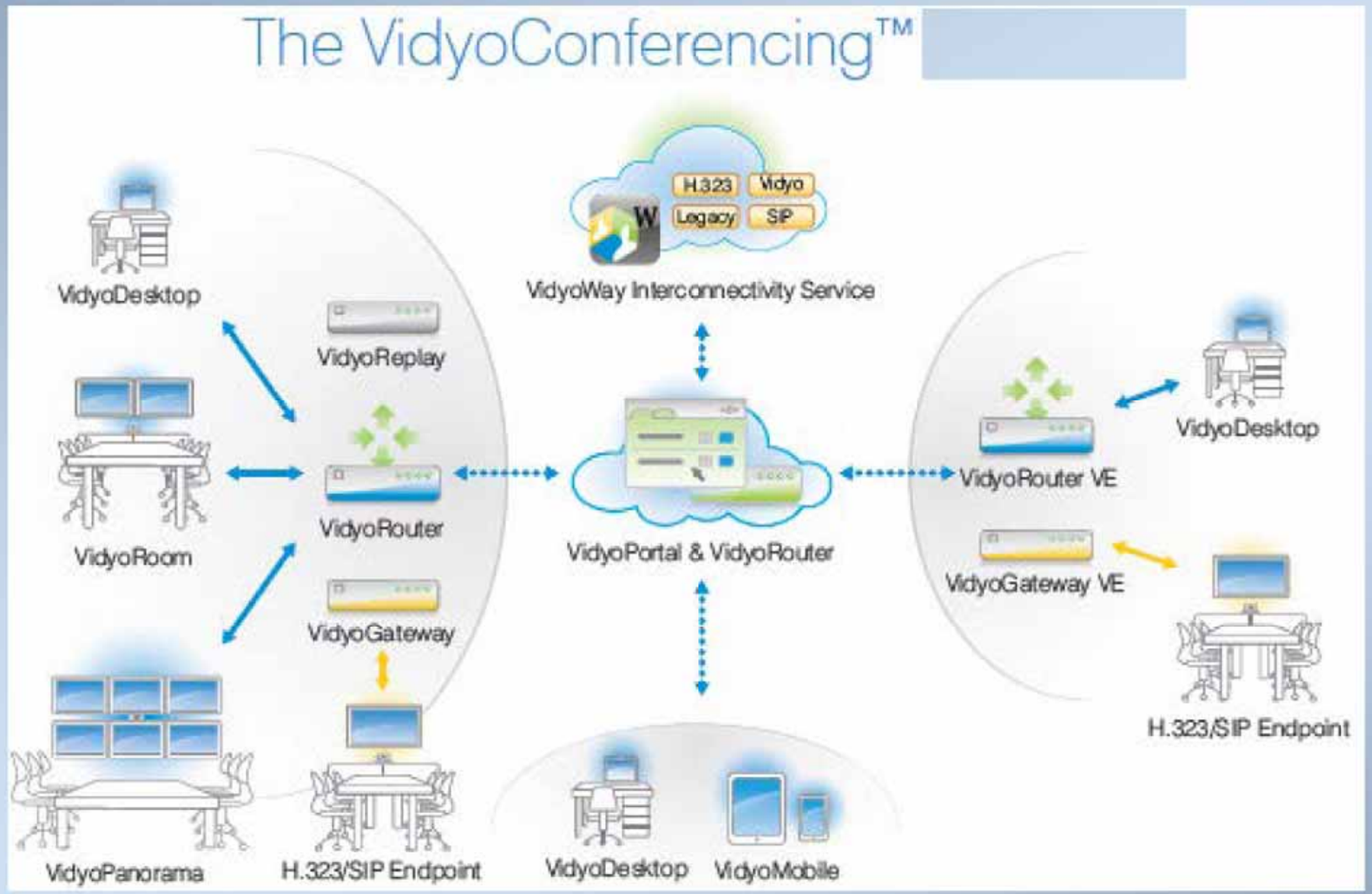
Vidyo Gateway

Recording server

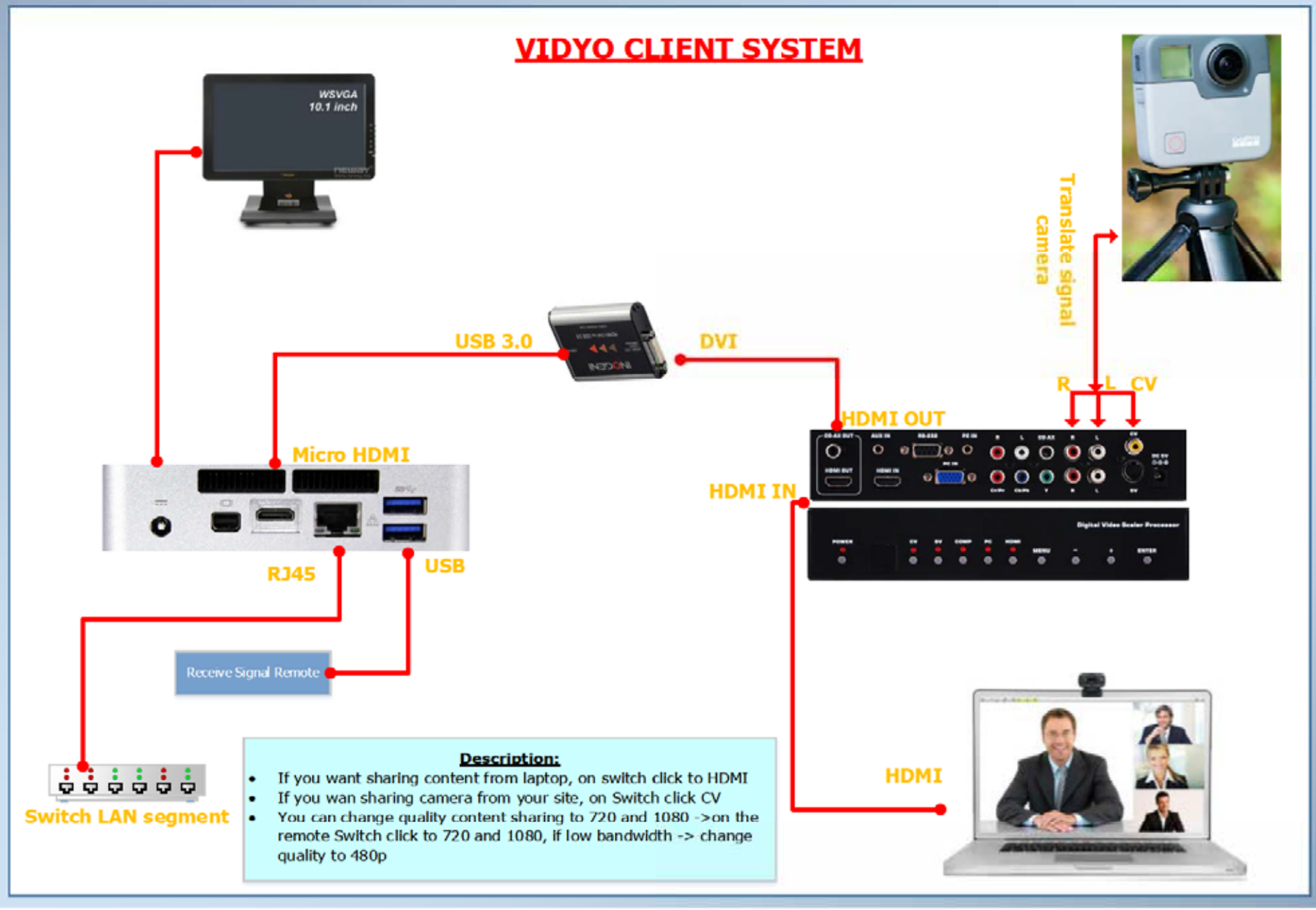
Vidyo Portal

Temdec Teleconferences System

Topology Vidyo System

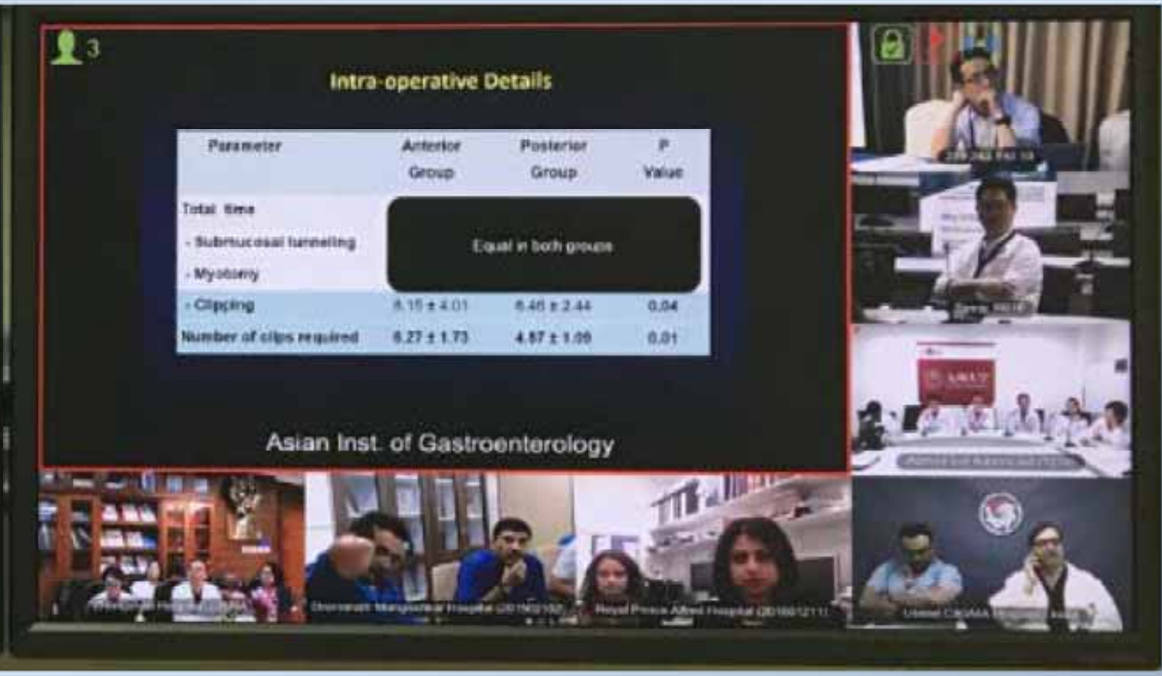


Temdec Teleconferences System



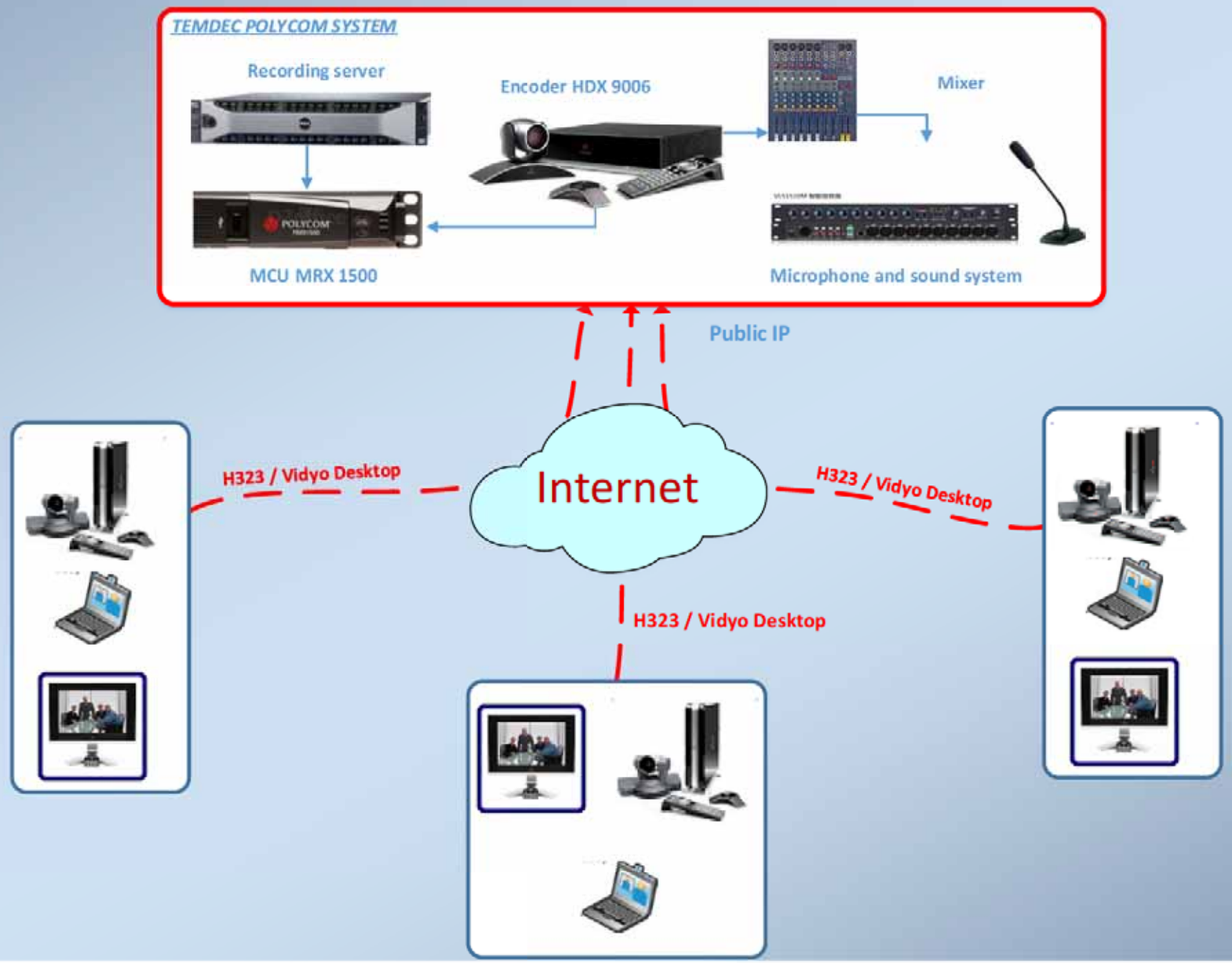
sytem

九州大学
KYUSHU UNIVERSITY


3
Intra-operative Details
Parameter
Anterior Group
Posterior Group
P Value
Total time
- Submucosal tunneling
- Myotomy
Equal in both groups
- Clipping
8.15 ± 4.01
6.46 ± 2.44
0.04
Number of clips required
6.27 ± 1.73
4.57 ± 1.09
0.01
Asian Inst. of Gastroenterology

Temdec teleconferences system

POLYCOM SYSTEM



Temdec teleconferences system

Some picture conference H323 system

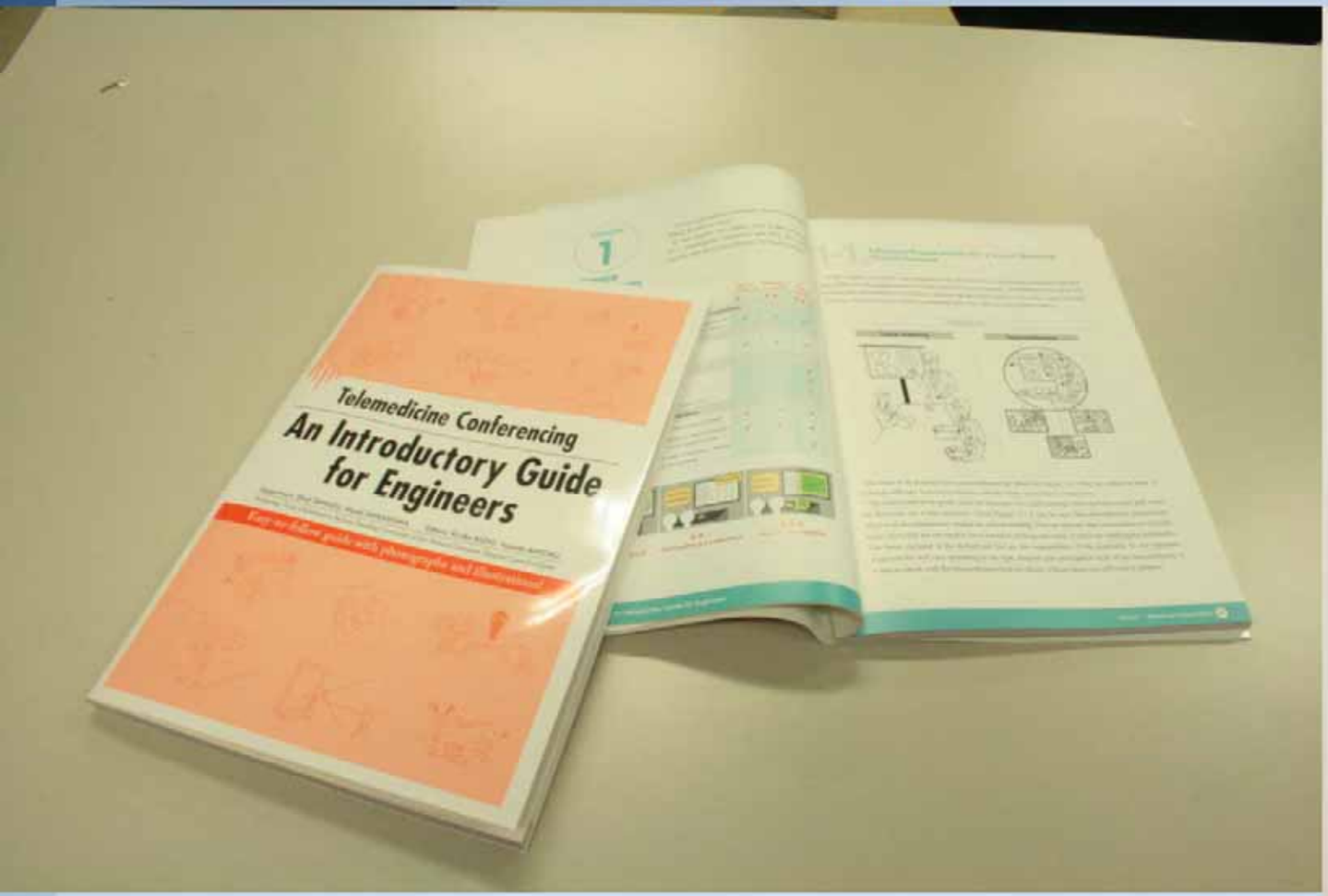
How the telemedicine event is realized

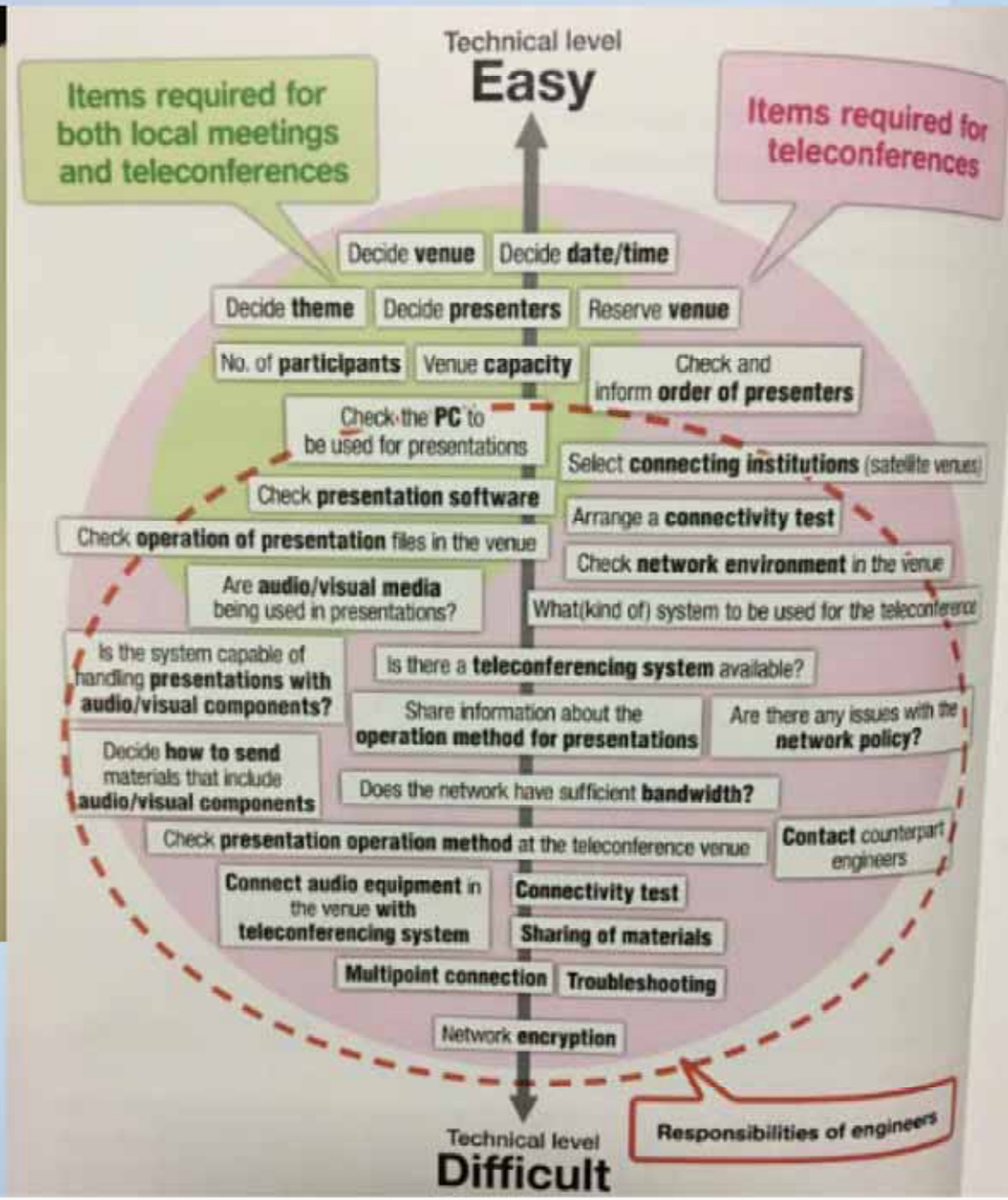
- Planning for event, technical method, etc.
- Invite participant via Email
- Survey venue before the event
- Division of tasks for the team …
- Technical check before takes place the conference with participant.
- Mounting, setup all equipment for teleconferences in Venue.
- Received slide and movie from Participant.
- Follow, monitor and troubleshooting in the conference
- Report after finished the event.
- Closing remarks and finish event

Technical preparations

- Send schedules to the participating countries
- Decide venue, date and time, presenters
- Network policy check in venue countries
- Teleconferencing system available ?
- Coordinate with local engineer to test
  - Connection check
  - Image sharing check
  - Sound Check

Technical preparations



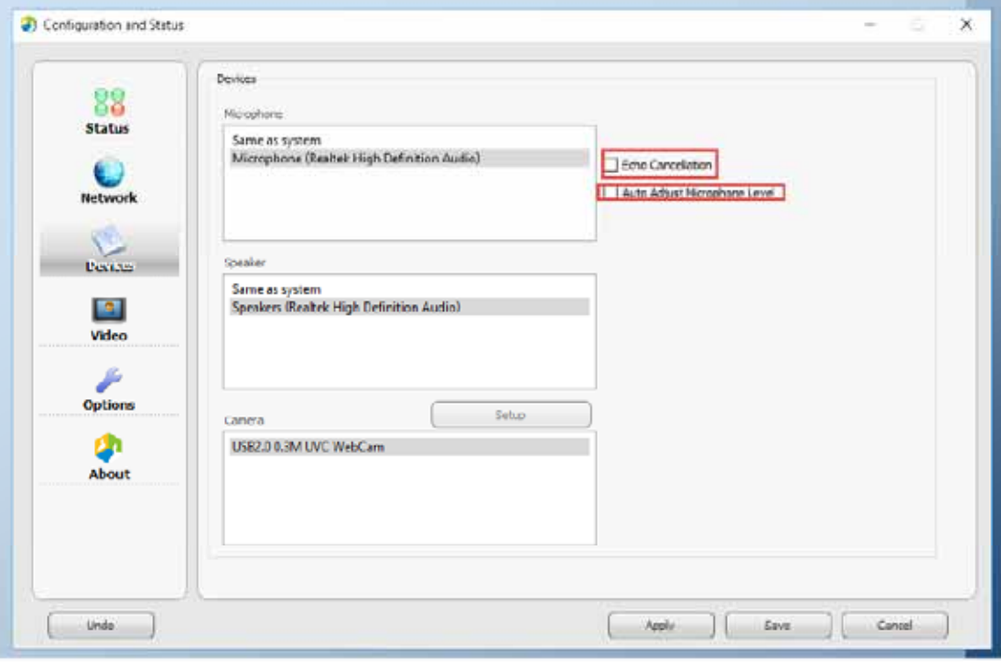


telemedicine

- Minimum bandwidth internet 4 Mbps
- Recommends using the wire network.
- Computer with high resource will give nice the picture and not lag
- Camera can support HD
- Microphone have function noise filtering
- Make sure mute the microphone when not speak
- QoS for conference

Technical Troubleshooting

- Sound problem :
  - Echo / Howling
  - Noise
  - Sound breaking up
- Image Problem
  - Poor image quality
  - Image does not display
  - Presentations are not show on screen
- Network problem
  - Packet loss



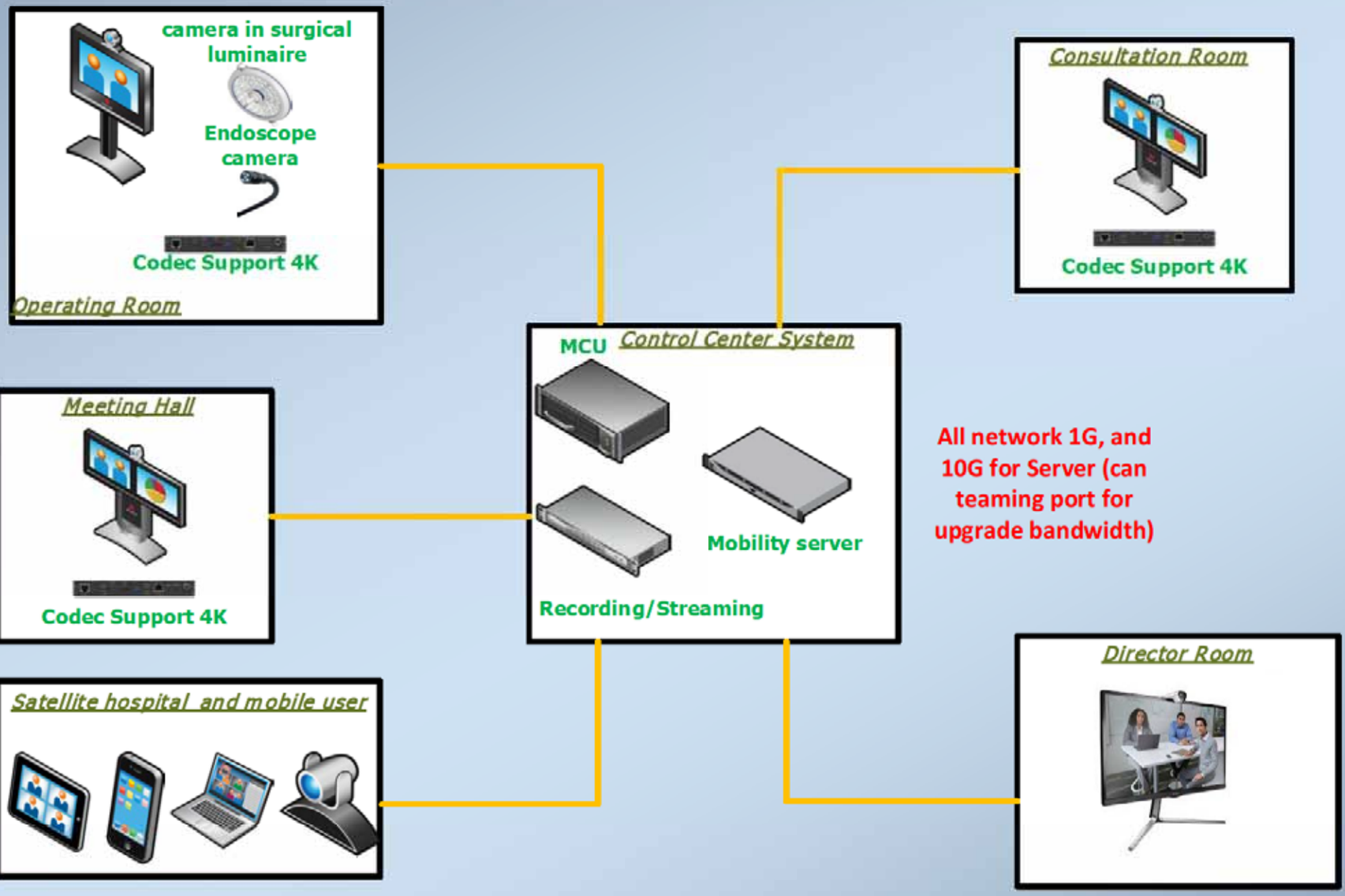
Future plan

- Share the knowledge learned with my department and other staff interested about telemedicine system

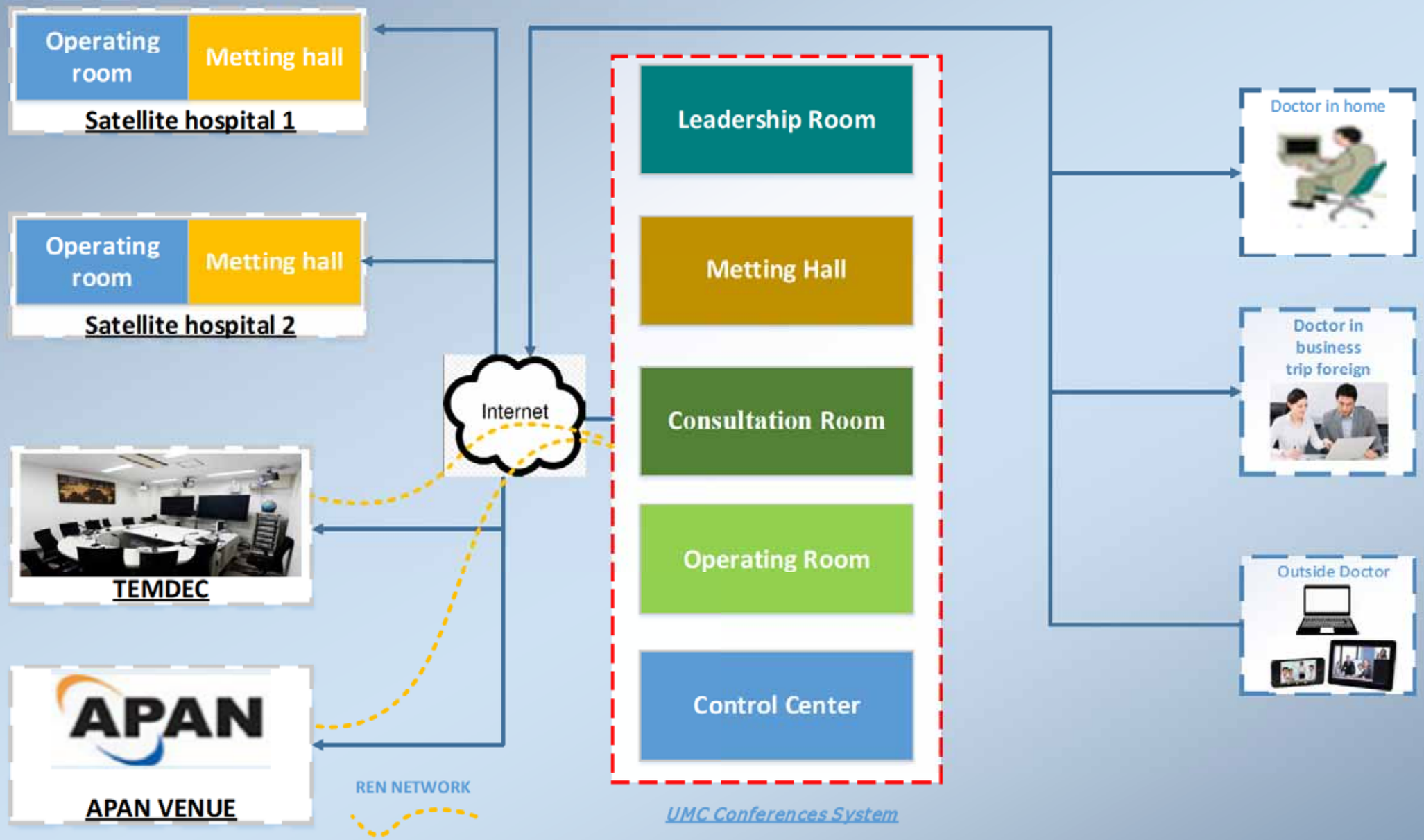
- Upgrade bandwidth internet line to 500 mbps local and 20 mbps international. (Finish this month Sep-2017)

- Forwarding event information for faculties, departments related when received

Future plan


camera in surgical luminaire
Endoscope camera
Codec Support 4K
Operating Room
Consultation Room
Codec Support 4K
MCU
Control Center System
Mobility server
Recording/Streaming
Meeting Hall
Codec Support 4K
All network 1G, and 10G for Server (can teaming port for upgrade bandwidth)
Satellite hospital and mobile user
Director Room

Future plan


Operating room
Metting hall
Satellite hospital 1
Operating room
Metting hall
Satellite hospital 2
Internet
TEMDEC
APAN
APAN VENUE
REN NETWORK
Leadership Room
Metting Hall
Consultation Room
Operating Room
Control Center
UMC Conferences System
Doctor in home
Doctor in business trip foreign
Outside Doctor

Visit the operating room

Visit to the server room for telemedicine

Team work (we are one)

Food in Fukuoka

After work

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Telemedicine Development Center of Asia

THANKS FOR YOUR ATTENTION