TCIL

extends a warm welcome to Delegates
To
W.Afri.tel Ex.2010

TCIL BHAWAN

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Telecom Sector in India

- The total no. of mobile telephones in India have crossed the 564 Million mark.

- India has become 2nd largest Mobile Telephone network in the world in terms of no. of telephones after China .

- More than 89% of villages covered by Telephone services

- More than 15 Million Internet connections & 2.5 Million Connections in Broadband.

- Target of 40 million internet customers and 20 million Broadband customers by the end of 2010.

IT SECTOR GROWTH IN INDIA

❖   IT Sector growth which is at present 4% - 7% will attain a double digit growth 2010-11

❖   Indian IT industry has growth rate of around 30% for entire past decade from USD 4.8 billion in FY 1997 – 98 to USD 50 billion in FY 2007 – 2008. Its contribution to GDP is estimated to have grown from 1.2% to 5.8% in the same period.

❖   Service and software exports remain the mainstay of the sector contributing around 2/3 rd of the overall revenue aggregate.

❖   Revenue from the Indian IT Software and services sector (including the domestic and exports segments and excluding hardware) touched nearly USD 50 billion in FY 08 and is expected to grow consistently by 14% in the next decade upto USD 225 billion.

FROM : NASSCOM

About TCIL…

Telecommunications Consultants India Limited

- Wholly owned Government of India Enterprise, TCIL was **set up in 1978** by the Department of Telecom **to share Indian expertise in all fields of telecommunications globally.**

- An **ISO 9001: 2000 certified,** TCIL is a profit-making, Indian MNC having operated in **58 countries across the globe** .

- Presently provides **Consultancy and Turnkey Project Execution Services** from concept to commissioning in the fields of Telecommunications, IT, and Civil & Architecture.

Range of Services in Telecom, IT and Civil works

- Consultancy
- Feasibility Studies
- Design
- Engineering
- Project Supervision
- Network Planning & Development
- Operation & Maintenance
- Turnkey Project Implementation

- Training
- Managerial Support
- Manpower Support

AREAS OF SPECIALIZATION

– Access Networks

(Wireless, Wire-line)

– **Transmission Systems**

(OFC, Microwave, Satellite)

– **Switching Systems**

– **Mobile Networks**

– Network Management

- **State Wide Area Networks/** Captive Networks for Business Communication

- **Design and Construction of Telecom Buildings**

- **Architectural Design and Civil Works**

Countries where TCIL is currently present

Afghanistan	Bahrain	Bhutan	India
Jordan	Kuwait	Myanmar	Nepal
Oman	Qatar	KSA	U.A.E.

Algeria	Benin	Botswana	Burkina Faso
Burundi	Cote d'Ivoire	Cameroon	Djibouti
Egypt	Ethiopia	Gabon	Gambia
Ghana	Malawi	Mauritius	Mauritania
Madagascar	Mozambique	Nigeria	Niger
Rwanda	Senegal	Seychelles	Sierra Leone
Somalia	Sudan	Tanzania	Togo
Uganda	Zambia		

Ongoing Major Projects: Overseas

- Fiber-To-The-Home (**FTTH) project for the MoC Kuwait**: **USD 21.5 Million**

- Pan-African e-Network Project for **Tele-education, Tele-medicine and VVIP Connectivity in all 53 countries of Africa,** for Ministry of External Affairs, Govt. of India; **INR 5.429 Billion (USD 116 Mn)**

- Building 500-km OFC network (between Moreh, India and Mandlay) for **Myanmar**, and supplying ADSL2+ Modems: **USD7 Mn**

- Supply and Installation of **Satellite Hub and 500 VSATs in Nepal**: **USD 3 Mn**

- **Development of ICT Security and Audit Policy for EICTDA, Ethiopia: Euro 349, 000**

- **Turnkey implementation of Tele-medicine Network in SAARC member countries for Ministry of External Affairs, Govt. of India**

Ongoing Major Projects: Overseas

- **Setting Up of ICT Departments** for SMT Engg. Co., **Sudan**; USD 17.5 Mn in three phases (Phase I - USD 4.3 Mn in implementation).

- Project Management Consultancy for **setting up of four buildings of Cyber Park at Sidi Abdellah, Algiers**.

- **Access Network and FTTB connectivity Projects** in **Kingdom of Saudi Arabia** valued at USD 5.12 Mn.

- **Installation and Maintenance of telephone network** in Hawally and capital Governorates for **MOC, Kuwait** valued at USD 8.3 Mn.

- **Construction of telecom and data network** for **Kuwait** valued at USD 3.2 Mn.

- **Access Network** in **Oman** USD 16.6 Mn.

Ongoing Major Projects: India

- **National Internet Backbone** (NIB) – Project 3, of **BSNL**, Expansion order for INR 1.630 Billion (about **USD 37 Mn**)

- Turnkey implementation of Telecom, IT and Networking Projects for **Commonwealth Games Delhi 2010**: **USD 20 Mn**

- **Consultancy for implementing e-Governance** (State Wide Area) **Networks** in 5 States of India (Jharkhand, Meghalaya, Orissa, U.P., A.P.): Total capital outlay: **USD150 Mn**

- **Consultancy for Modernization of Communication Network for Jharkhand Police**: **Capital outlay USD 8 Mn;**

- Establishment of **Virtual University for University of Madras**, on turnkey basis: **USD 2.0 Mn;**

- **Vessel Traffic Service** in the Gulf of Kutchh, Gujarat for DG Lighthouses and Lightships, Ministry of Shipping, Govt. of India: **USD 25.7 Mn**

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JOINT VENTURES (GROUP COMPANIES)

	Core Business	JV Partner	TCIL Equity		Year of Investment
			%age	Rs. in Lakhs	
Intelligent Communication System India Ltd.	Computer Hardware	DSIDC & Others	36%	36.00	1987
Tamilnadu Telecommunication Ltd.	OFC Cable	TIDCO & Fujikura	30.6% ★	695.10	1988
TBL	Billing Software	TBL LLC & Others	45%	83.73	1989
TCIL Saudi Co. Ltd.	Telecom projects	NATEL	40%	66.84	1993
Bharti Hexacom Ltd	GSM Services in Rajasthan	Bharti	30%	10620.00	1995
UTL	WLL services in Nepal	MTNL, TATA Comm., NVPL	26%	3584.00	2002
TCIL Oman LLC	Telecom Projects	MSE	70%	120.92	2008

सत्यमेव जयते

Pan-African e-Network Project
- A practical example of South-South Cooperation

- **Initiative of Government of India in collaboration with African Union**

Non-commercial project, funded by the Govt. of India at a budgetary cost of USD116 Mn

Pan-African e-Network

- Dr. A P J Abdul Kalam, the former President of India during his inaugural address to the African Parliament in Johannesburg on 16th Sep. 2004, **proposed to connect all 53 AU member** countries with Indian institutions with a satellite and fibre-optic network **to share India's expertise in the fields of Education and Health care for** accelerated socio-economic development of Africa.

- AU accepted the Indian proposal and signed an umbrella MOU with Govt. of India (through **Ministry of External Affairs – Nodal Ministry)**

- **Govt. of India appointed TCIL as the turnkey implementing Agency of the project network**

- The network primarily provides e-Services with priority on:
  - **Tele-education, Tele-medicine, and VVIP Connectivity (video-conferencing and VoIP among the Heads of African States)**
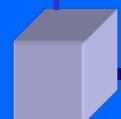
INDIA

IIT, Kanpur

University of Madras

Delhi University

IGNOU, Delhi

IISc, Bangalore

BITS, Pilani

AMITY University, Noida

AIIMS, Delhi

FORTIS Hospital, Noida

ESCORTS HIRC, Delhi

Narayana Hrudayalaya, Bangalore

Mool Chand Medicity, Delhi

SMC, Ghaziabad

CARE Hospital, Hyderabad

AMRITA IMSRC, Kochi

HCG, Bangalore

Apollo Hospital, Chennai

MPLS

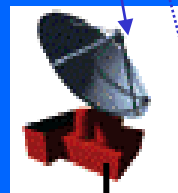**DATA CENTRE Delhi**

Back-bone Link

Landing Station, India

DR. Balabhai, NANAVATI Hospital, Mumbai

SRI RAMCHANDRA MCRI, Chennai

IPLC 4Mbps
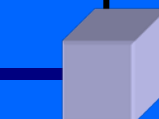
Submarine Cable Landing Station, Africa (DAKAR, SENEGAL)

AFRICA

RASCOM Satellite

Satellite HUB Station

5 Regional Super Specialty Hospitals

5 Regional University Centres

53 Learning Centres

53 Patient-End Hospitals

53 VVIP Nodes

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ARCHITECTURE OF PAN-AFRICAN e-NETWORK

Indian Universities selected by Govt. of India for providing Tele-Education services

1. Indira Gandhi National Open University (**IGNOU**), New Delhi
2. **University of Madras**, Chennai
3. **University of Delhi**, New Delhi
4. Birla Institute of Technology & Science (**BITS**), Pilani
5. **AMITY** University, Noida
6. Indian Institute of Technology (**IIT**), Kanpur
7. Indian Institute of Science (**IISc**.), Bangalore

Indian Super Specialty Hospitals selected by Govt. of India for Tele-Medicine

1. **All India Institute of Medical Sciences** (**A.I.I.M.S.**) **New Delhi**
2. **ESCORTS** Heart Institute and Research Center, **New Delhi**
3. **MOOLCHAND Hospital, New Delhi**
4. **FORTIS** Hospital, **Noida**

5. **APOLLO** Hospitals, **Chennai**
6. **SRI RAMCHANDRA** Medical College and Hospital, **Chennai**

7. **NARAYANA HRUDAYALAYA**, **Bangalore**
8. **HEALTH CARE GLOBAL** Enterprises, **Bangalore**

9. **CARE** Hospitals, **Hyderabad**

10. Amrita Institute of Medical Sciences (**AIMS**), **Kochi**

11. Dr. Balabhai **NANAVATI** Hospital, **Mumbai**

12. SANTOSH Medical College & Hospital, Ghaziabad

Leading Regional Universities and Super Specialty Hospitals of Africa (selected by AU) to be part of the Project

Leading Regional Universities (selected by AU)

1. **Makerere University – Uganda**
2. **Kwame –Nkrumah** University of Science & Technology- **Ghana**
3. **University of Yaounde, Cameroon**
4. **Alexandria University, Egypt**

<u>Southern</u> African region - yet to be selected

Regional Super Specialty Hospitals (selected by AU)

1. **Ibadan Hospital** – **Nigeria**
2. **Brazzaville Hospital –** Republic of **Congo**
3. **Sir Seewosagur Ramgoolam National Hospital, Mauritius**
4. **Alexandria University Hospital, Egypt**

<u>Southern</u> African region- yet to be selected

Role of TCIL as the Implementing Agency

- **Design of Total Network Solution**
- **Turnkey implementation of the project;**
- **Operations & Management Support for** 5 years after commissioning of the network;
- Providing **Tele-Education and Tele-Medicine Services** in collaboration with Indian universities and Super Specialty Hospitals selected by Govt. of India

Major Components of the project

- Construction of **Hub Station Building**

- **Supply, Installation & Commissioning** of:

  - Satellite **Hub** Station
  - **VSATs** in 169 locations in Africa
  - **Data Center** and Studio Set up in TCIL HQ
  - Data Center at the Satellite Hub Station

  - **ICT Equipments** (Computer hardware, system software, networking equipment, studio equipment and UPS) **at 170 locations** in Africa (53 LC, 53 PEL, 53 VVIP Node, 5 RUC, 5 RSSH and 1 DC at hub) and 19 locations in India (7 UC, 12 SSH and DC at Delhi)

  - **Medical Equipment s** at 53 Patient-end Hospitals

  - Tele-Ed and Tele-Med **Application Software**

- Operation & Management & **AMC support** for the network for 5 yrs

- **Tele-Education and Tele-Medicine services for 5 years**

Set of 10 Medical equipments installed in each Patient-end Hospital in Africa

- Portable **X-Ray Machine**
- X-Ray Film **Scanner-Digitizer** (DICOM 3.0 Compliant)
- 12-lead **ECG** Machine
- **Ultra-sound** Machine with **color Doppler** (DICOM 3.0 Compliant)
- **Defibrillator - AED** (Automated External Defibrillator)
- **Glucometer**/Blood Analyzer
- **Urine Analyzer**
- Blood Pressure Measuring Instrument
- **Tele-Pathology Microscope** with built-in Digital Camera
- Sterilizer/ **Hot air oven**

Major Benefits intended to African Nations

Capacity building by way of imparting Education to 10,000 African students over 5 year period (2009-14):

2000 in PG Programs,
3000 in UG Programs and
5000 in skill enabling Certificate, Diploma and PGD Programs

Tele-medicine components:

- **Online medical consultation** for **one hour everyday to each country for 5 years**

- **Offline advice for 5 patients per day to each country** for 5 years

- **Continuing Medical Education (CME)** for practicing Doctors and working Nurses/Physicians' Assistants, to update their medical knowledge and upgrade their clinical skills.

47 Countries of African Union have joined the Project

1. Benin
2. Botswana
3. Burkina Faso
4. Burundi
5. Cameroon
6. Cape Verde
7. CAR
8. Chad
9. Comoros
10. Congo
11. Cote d'Ivoire
12. D.R. of Congo
13. Djibouti
14. Guinea-Bissau
15. Egypt
16. Eritrea
17. Ethiopia
18. Gabon
19. The Gambia
20. Ghana
21. Guinea
22. Kenya
23. Lesotho
24. Liberia
25. Libya
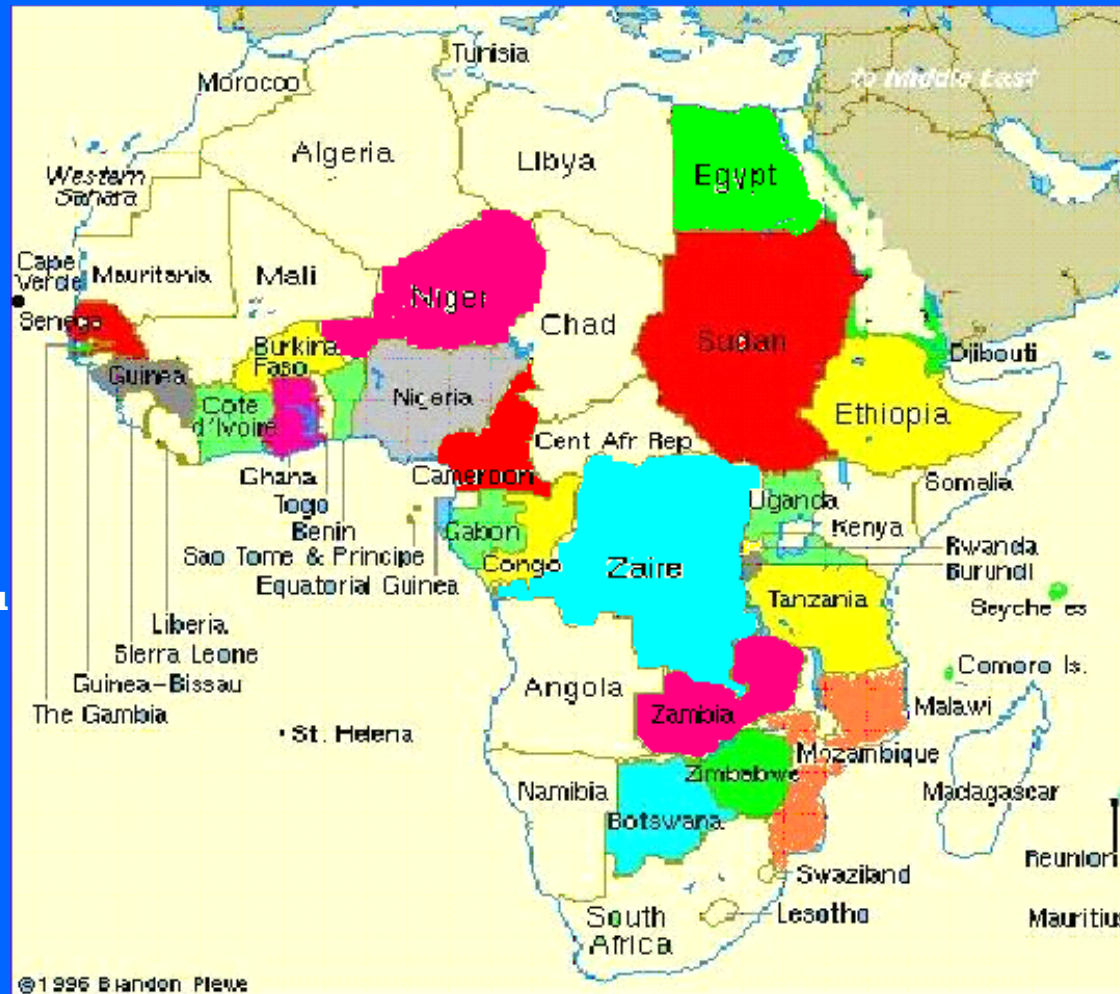
26. Madagascar
27. Malawi
28. Mali
29. Mauritania
30. Mauritius
31. Mozambique
32. Namibia
33. Niger
34. Nigeria
35. Rwanda
36. Sao Tome and Principe
37. Senegal
38. Seychelles
39. Sierra Leone
40. Somalia
41. Swaziland
42. Sudan
43. Tanzania
44. Togo
45. Uganda
46. Zambia
47. Zimbabwe

Installation of common network elements

1. Satellite **HUB STATION**: Operational since April 2008.

2. **IPLC** end-to-end commissioned in Aug 2008; upgraded to 4 Mbps in March 2009;

3. **Data Center, India at TCIL Bhawan, New Delhi** Operational since September 2008

Country-wise Implementation Status: at a glance

Countries implemented– 30 Countries

Benin, Botswana, Burkina Faso, Burundi, Cameroon, Djibouti, Eritrea, Ethiopia, Egypt, Gabon, Gambia, Ghana, Ivory Coast, Malawi, Mauritius, Mauritania, Madagascar, Mozambique, Nigeria, Niger, Rwanda, Senegal, Seychelles, Sierra Leone, Somalia, Tanzania, Togo, Uganda, Zambia, Comoros

Work in Progress – 07 Countries

Congo, D.R. of Congo, Guinea , Madagascar, Mauritania, Sudan, Zimbabwe,

Recent Signatories – 12 Countries

Swaziland, Lesotho, Cape Verde, Chad,, Liberia, Namibia,
Central African Republic, Mali, Libya, Guinea Bissau, Kenya, Sao Tome and Principe

All countries scheduled for commissioning by June 2010, subject to readiness of sites by March 2010.

Operationalising the Network

and

Providing the Tele-education and Tele-Medicine Services

Educational Programmes Offered

Post Graduate Programs (4/5 semesters)   **University**

1. **MBA** (HR/Marketing) **(English)**   **IGNOU**
2. **MBA–International Business**   **AMITY**
3. **M.Sc.- IT**   **Uni. of Madras**
4. Master of Tourism Management   **IGNOU**
5. Master of Finance and Control   **AMITY**
6. **MBA** (HR, Marketing **– French)** *   AMITY

Under Graduate Programs (3 years/6 semesters)

1. **BBA (in English)**   **Uni. of Madras**
2. **BBA (in French)**   **AMITY**
3. **B.Sc.-IT**,   **AMITY**
4. Bachelor of Fin & Investment Analysis **AMITY**
5. Bachelor of Tourism Studies   **IGNOU**

* Reserved

Educational Programmes Offered

Diploma Programs (1 year)   **University**

1. **French Language**   **AMITY**
2. **PG Diploma – IT**   **AMITY**
3. **Business Management**   **AMITY**
4. **Tourism Studies**   **IGNOU**
5. **Early childcare and
    Education**   **IGNOU**

Certificate Programs (6months, 1 year)

1. **Database & Information System (1year)**   **BITS**
2. **Networking & Operating System (1 year)** **BITS**
3. **Electronics & Instrumentation (1 year)** **BITS**
4. **English Language**   **Delhi University**
5. **Accountancy**   **Delhi University**
6. **German Language**   **Uni. of Madras**
7. **Arabic Language**   **Uni. of Madras**
8. **Tourism Studies**   **IGNOU**
9. **Nutrition & Childcare**   **IGNOU**
10. **Environmental Studies**   **IGNOU**

Medical Disciplines offered

1. General (Internal) Medicine
2. Radiology
3. Adult Cardiology
4. Pediatric Cardiology
5. Neurology
6. Dermatology
7. Endocrinology
8. Infectious Diseases/HIV-AIDS
9. Gastroenterology
10. Nephrology
11. Pathology
12. Psychiatry
13. Pediatrics
14. Medical Oncology
15. Urology
16. Genetics
17. Gynecology*
18. Ophthalmology*

SNAPSHOTS OF INSTALLATION SITES

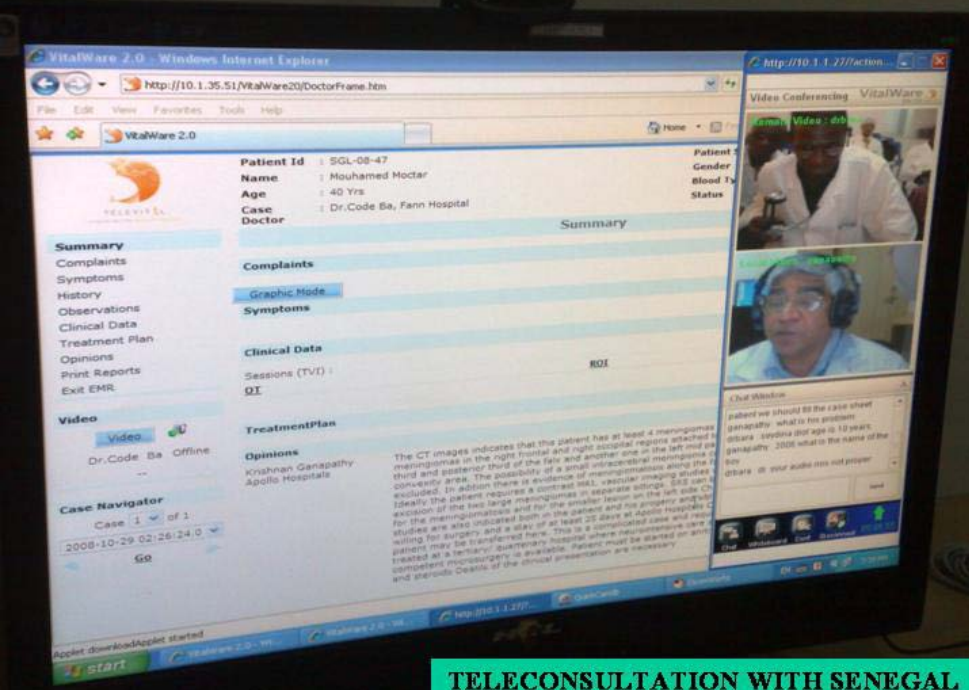# HUB STATION BUILDING –DAKAR SENEGAL

22/11/2008

Studio at Apollo Hospitals, Chennai for CME Lectures

PAN AFRICAN eNETWORK- Consultation Suites at Apollo Hospitals, Chennai

TELECONSULTATION WITH SENEGAL- APOLLO END

TELECONSULTATION WITH SENEGAL

Hon'ble Minister cutting the ribbon

Hon'ble Shri Pranab Mukherjee having on-line interaction with Ministers in 11 African countries, individually, through the network (left) in the presence of their Ambassadors/High Commissioners in India (right)

MBA Students in the Learning Centre in Addis Ababa University attending the Tele-Education Session from IGNOU

Ethiopia Pilot Project

For

Tele-education and Tele-Medicine

Highlights of the Project

- **Date of Commissioning – November 2006**

- **Value of the project – USD 2.13 Million**

- **34 Ethiopian students** are pursuing 5-semester **MBA Programme from IGNOU** since 20th March 2007. Fifth and final semester concluded in June 2009;

- **CME Sessions** on Radiology, Cardiology conducted for the benefit of doctors; very popular – **attended by 30 to 40 doctors of Black Lion Super Specialty Hospital of Addis Ababa**

SAARC Telemedicine Network

The logical connection between these components is as shown in the diagram below:
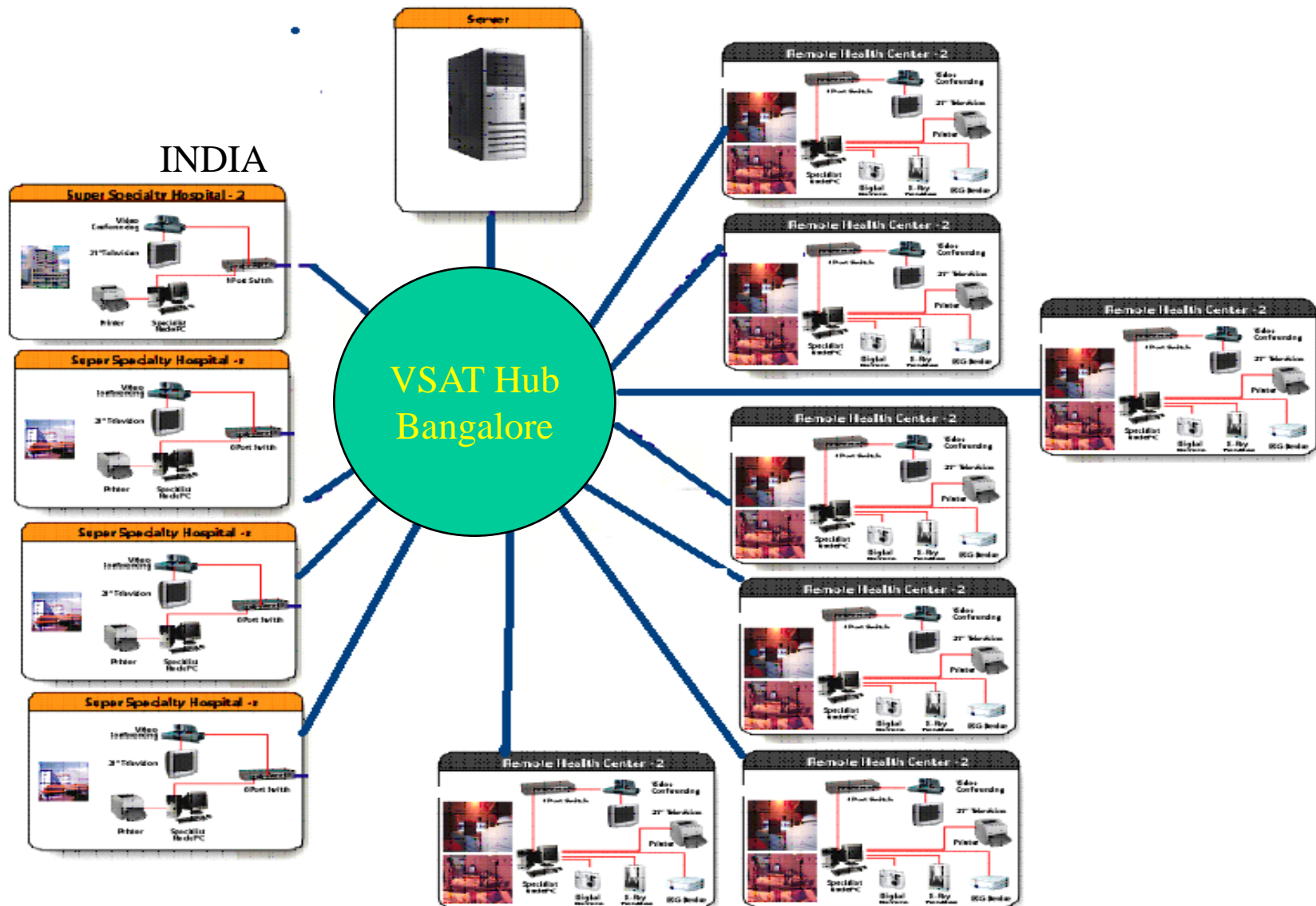
Network Architecture

- **Satcom Network in Ku-Band with a hub in Bangalore**

- **VSAT based Patient-End Location** (Medical Center) in each SAARC Member Country

- **Connectivity within India** (from hub station in Bangalore to Super Specialty hospitals in India) **on MPLS links**

- **Tele-Medicine Studio set-up at identified SSHs in India –** and a Tele-medicine Server at Hub station in Bangalore.

Indian Super Specialty Hospitals selected for SAARC Tele-medicine services

1. All India Institute of Medical Sciences (**AIIMS**),New Delhi

2. Post Graduate Institute of Medical Education and Research, **PGIMER , Chandigarh**

3. Sanjay Gandhi Post Graduate Institute of Medical Sciences ,(**SGPGI**) Lucknow

Tele Medicine Session between Bhutan and SG PGI Lucknow

THANK YOU