

Effective Utilisation of **EDUSAT** **for Education in India**

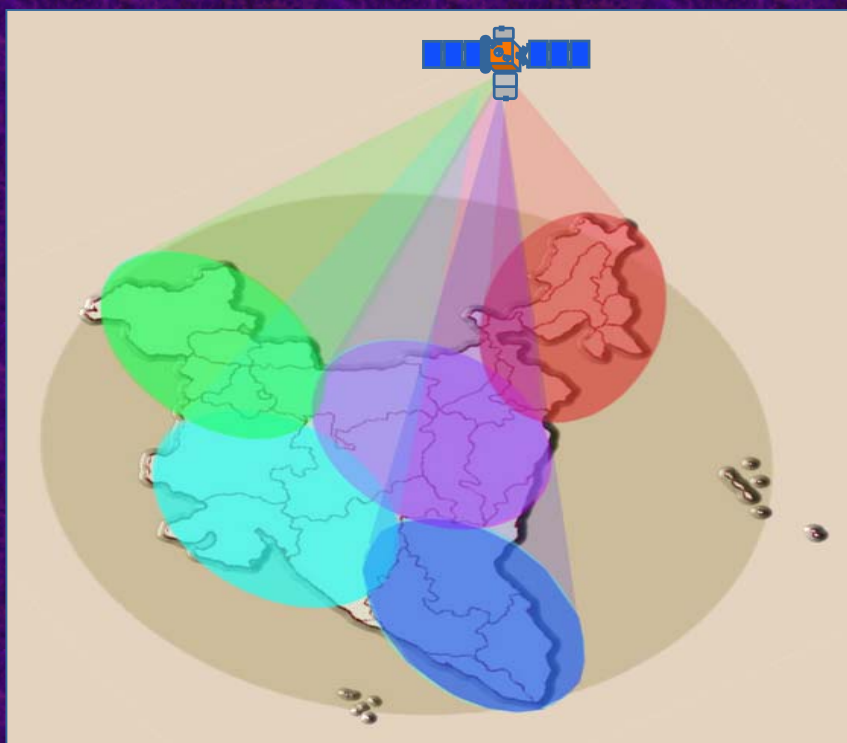
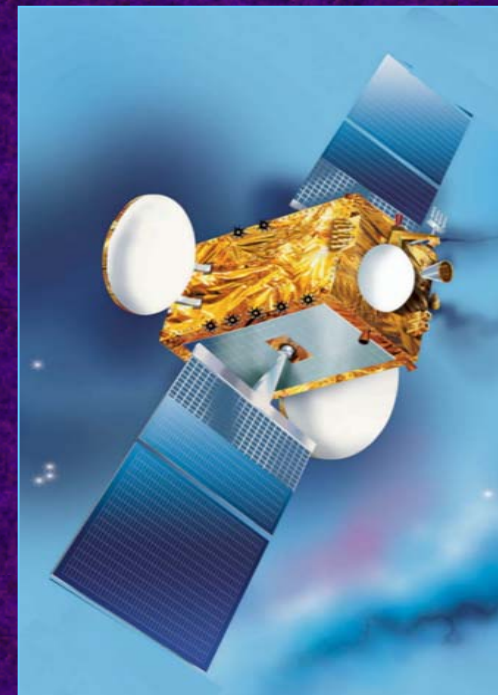


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Indian Space Research Organisation

Presented in 49th UN-COPUOS meeting, 15th June 2006

Edusat (GSAT-3)

- To support the educational efforts of INDIA, EDUSAT was configured exclusively to meet the educational needs of India.
- Launched by GSLV-F01 on September 21, 2004.



- ✓ 5 Spot Beams in Ku Band (5 Channels)
- ✓ 1 National Beam in Ku Band (2 Channels)
- ✓ 1 National Beam in Ext C Band (6 Channels)

Education Satellite System: Objectives

1. Providing Effective Teachers Training.
2. Supplementing the Curriculum based Teaching in several Regional Languages.
3. Greater Community Participation and Monitoring.
4. Providing Access to Quality Resource Persons (Higher & Professional Education).
5. Strengthening the Distance Education Efforts Initiated by Various Agencies.
6. Taking Education to Every Nook & Corner of the Country.
7. Providing Access to New Technologies.

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Education Scenario in India

- ❑ India has seen substantial increase in the number of educational institutions as well as the student enrolment at primary and secondary levels.
- ❑ At present there are 6,40,400 schools, 2,10,000 upper primary schools, 1,25,000 secondary & higher secondary schools, 10,200 colleges and more than 250 Universities.
- ❑ There are about 114 million students enrolled in primary schools 43 million in upper primary and 28 million in secondary & higher secondary schools .

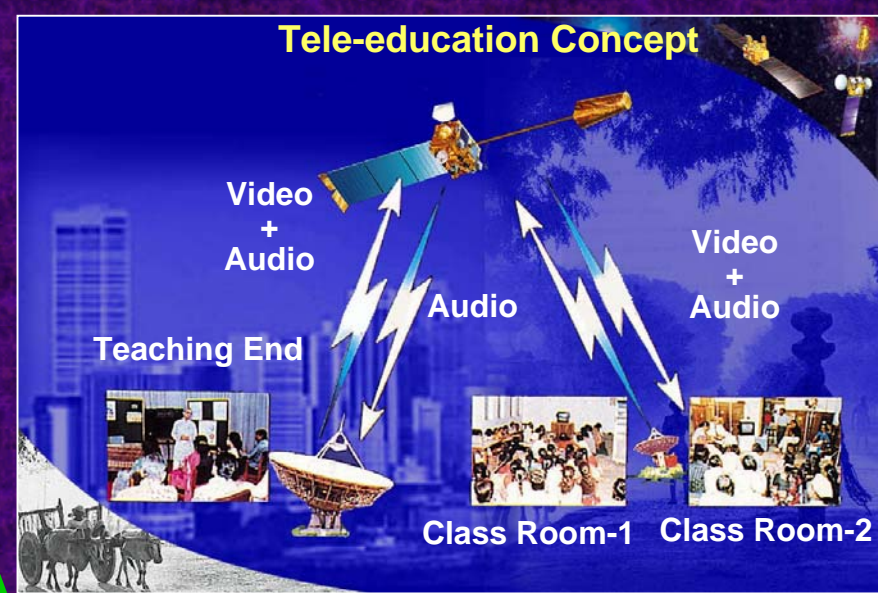
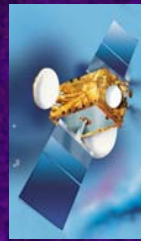


Education Scenario – contd...

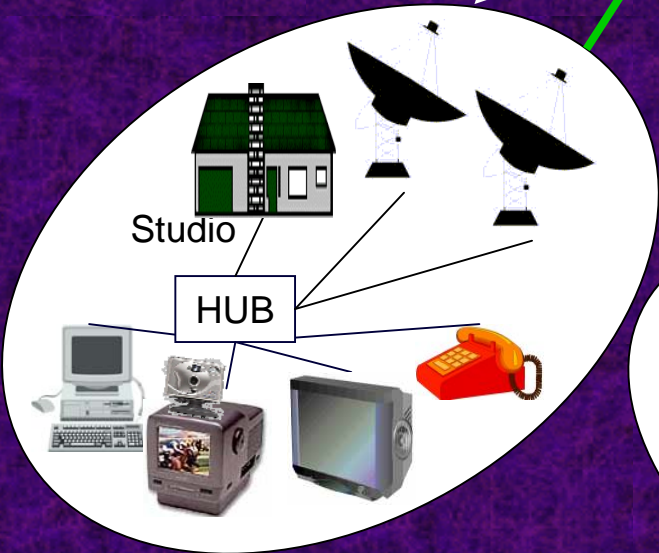
- ❑ There is a continuing trend in the case of primary and secondary education, thus requiring additional new teachers and new school units.
- ❑ Rapidly changing syllabuses in higher and professional courses to meet the industries needs.
- ❑ Shortage of qualified teachers in specialized subject



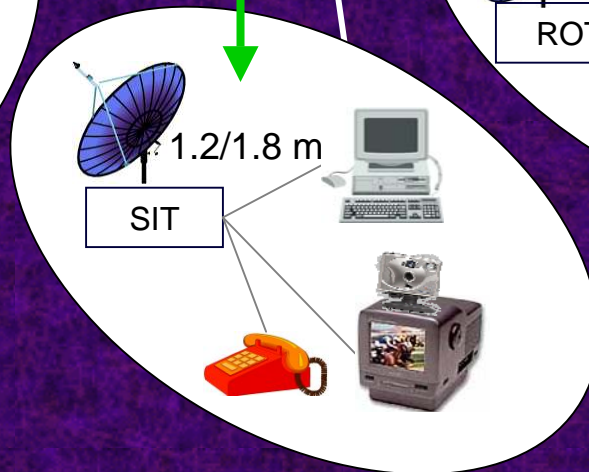
EDUSAT Network Connectivity



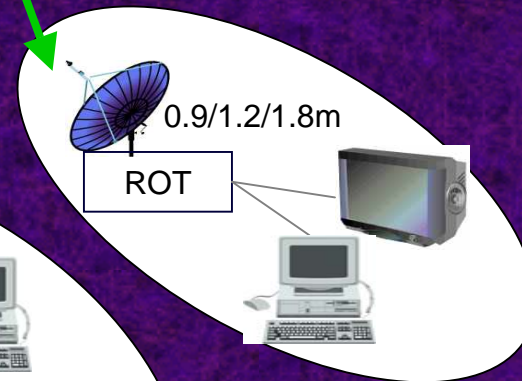
Ku & Ext C



State Capital



Higher Secondary / University



School

User Agencies

State Level:

- State Universities, Engineering and Degree Colleges
- Higher Secondary and Secondary Schools
- State Education Department
- State Open Universities
- Vocational Institutions



National Level:

- National Level Autonomous Educational Institutions
- National Open Universities.
- Institutes of Continuing Education in Govt. and Private Sectors.
- Professional Institutes.



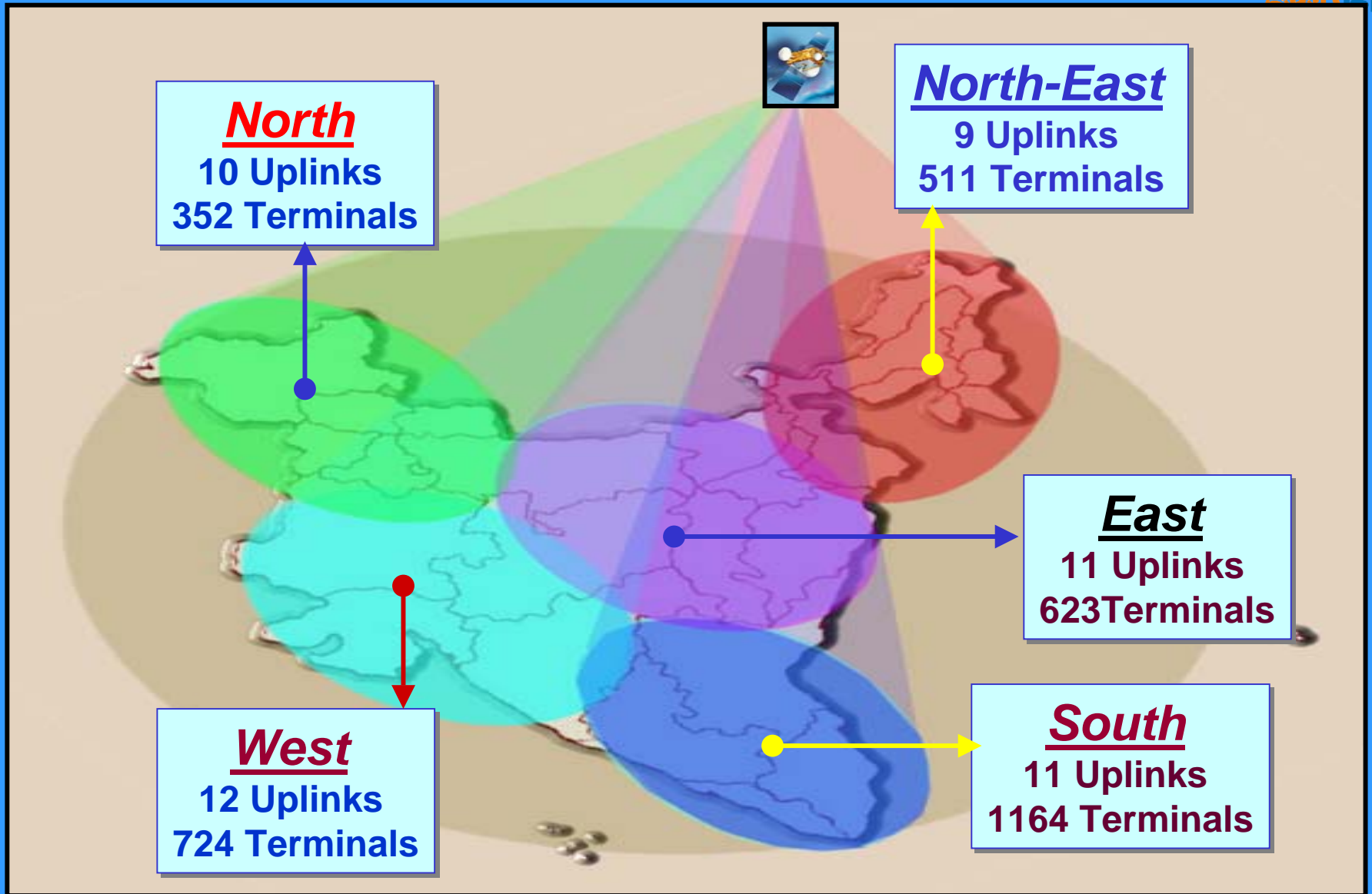
Edusat programme implementation

Coordination Set up

- ❑ The networks are set up by Joint efforts by ISRO, Ministry of Human Resources Development, (MHRD) Technical Universities and Departments of concerned state governments
- ❑ Internal Project Team, Project Management Board and Project Management Council at various levels for implementation of the project
- ❑ Apex body with Inter-departmental Project Review Board involving representatives of ISRO, Government and several educational agencies in the Country

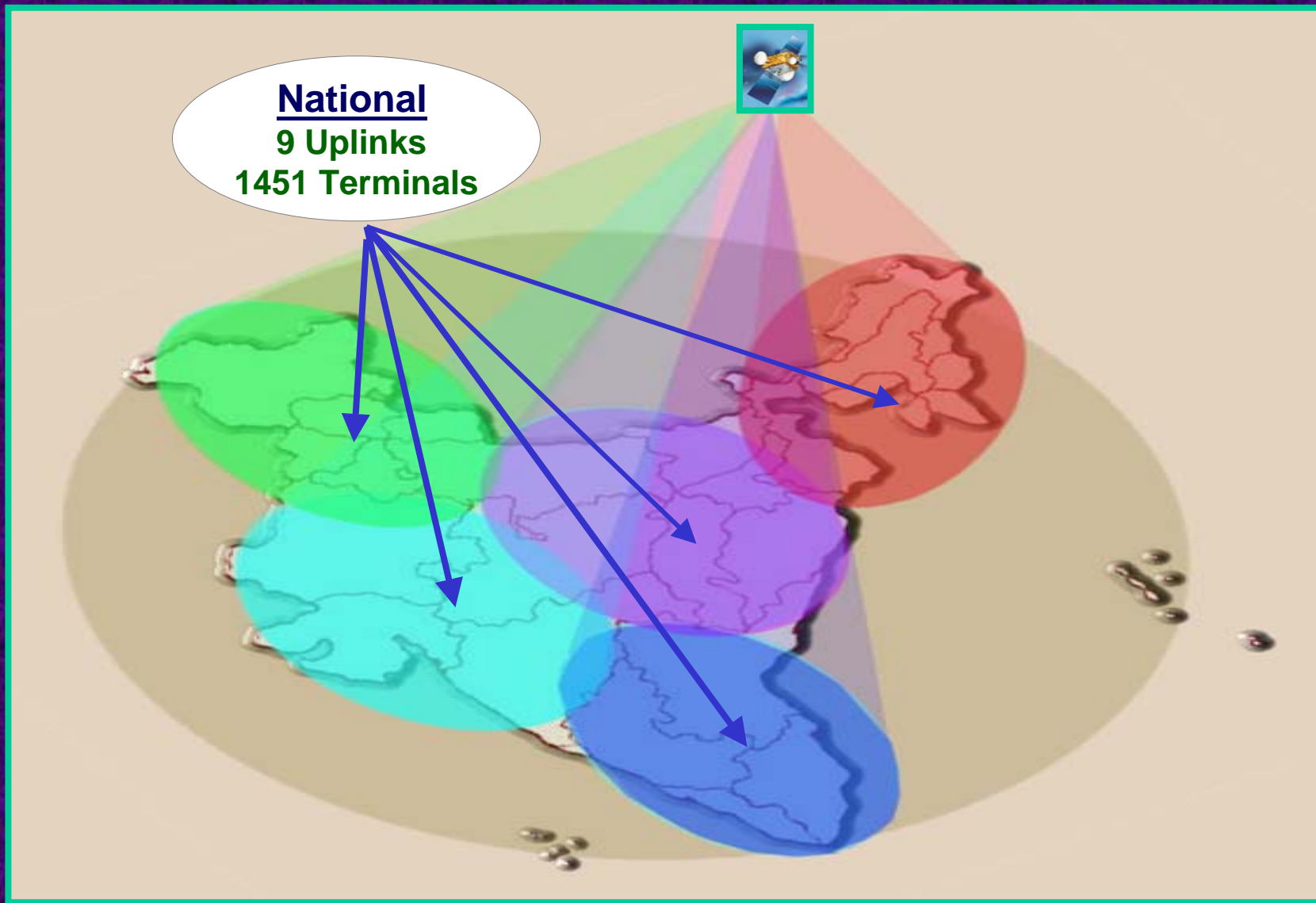


Edusat Regional terminals



Total : 52 uplinks, 4074 Terminals

EDUSAT National Terminals



EDUSAT –Current Utilisation Scenario

- **Till date 21 different networks have been established across the country. Most parts of the country have the connectivity.**
- **Special focus on remote inaccessible areas like Jammu & Kashmir, and North Eastern hill Regions and Islands.**
- **The total number of virtual classrooms today is around 4500. Around 3500 are receive only terminals (ROT'S) benefiting over 200,000 students.**



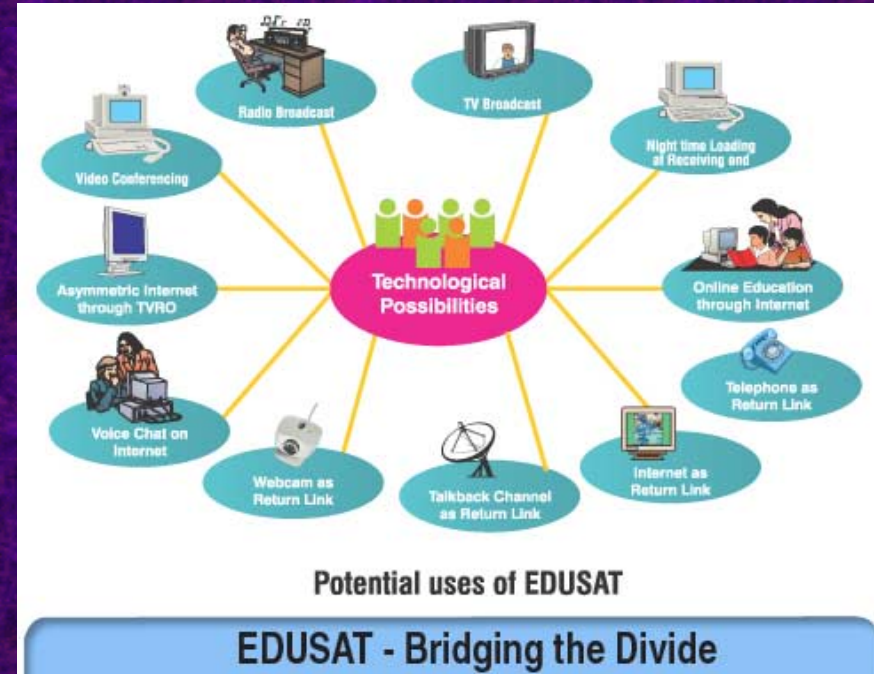
EDUSAT- Catering to Multiple Uses



□ **Primary Education** with **12500 terminals** linking rural schools in different states including the Islands.

□ **3200 terminals** are linked for **Secondary and Higher Secondary Education** covering all regions and remote areas.

□ **Science and Technology Education** with **5500 terminals** linking prominent Institutions of higher learning, technical and open universities and Indian Institute of Technologies.

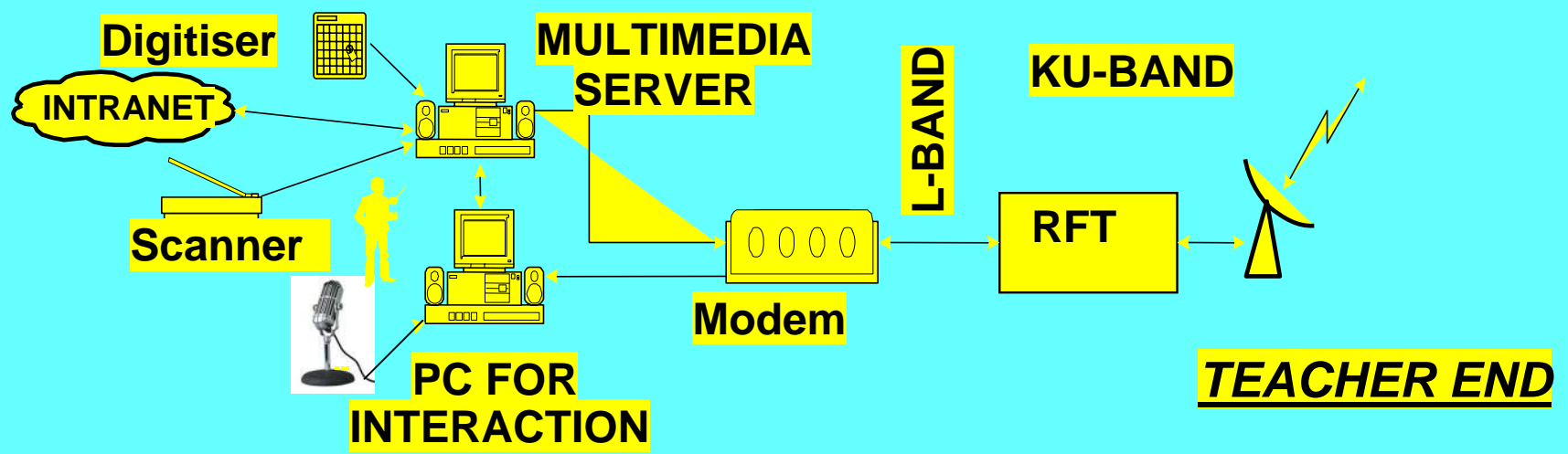


- ❑ **800 nodes** are operational for **Medical Education** connecting medical colleges with experts from super specialty hospitals.
- ❑ Effective **Training of Teachers** in both primary and secondary education all across the country including the remote areas.
- ❑ **Nurses Training** (about **15000 nurses**) in the state of Kerala in the Southern Region
- ❑ An effective network for the education in **Blind Schools** at Gujarat in the eastern Region.
- ❑ An **Indo US network** with a hub in Coimbatore for Higher Technical Education.

Key Factors for Effective Utilisation of Tele-education

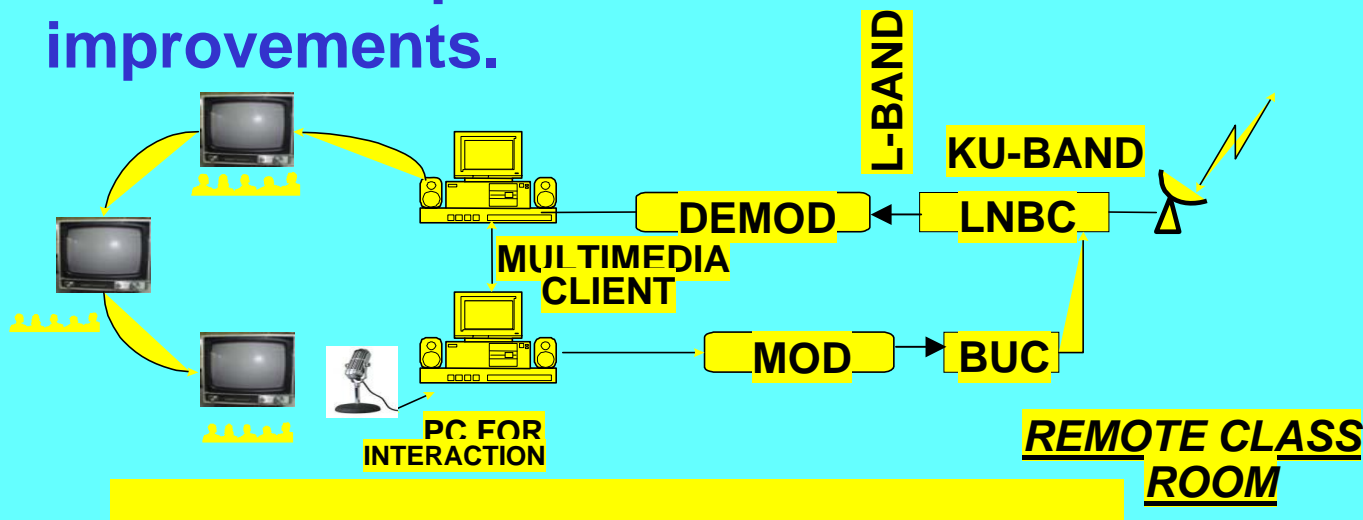


- ❑ Identification of all major players like State Govts., educational Institutes and other agencies and also consultations to develop a mutually agreeable Road Map.
- ❑ Clear definition of Configuration, setting up of ground segments, cost effective realisation and timely commissioning.
- ❑ Familiarisation of concepts to the users, the technology, the applications and process of implementation.



Key Factors (continued)

- ❖ Operations of network management and maintenance of trouble free operation and human resource training.
- ❖ Suitable content generation relevant to the subject taught and make it very informative and interesting to the audiences.
- ❖ Monitoring of the utilisation of the system, attendance performance evaluation and necessary improvements.



EDUSAT- FUTURE EXPANSION PLAN



□ The Edusat network will be expanded and will cover the entire country.

□ A minimum of 500,000 students are expected to be benefited annually. Of these 300,000 will be in Primary school level.

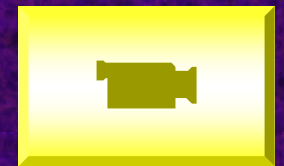
□ The users will fund and set up networks with technical support by providing the needed bandwidth from ISRO.

□ A centrally sponsored scheme proposed by MHRD to fund for expansion in various States.

□ Space segment will be enhanced to meet the future bandwidth demand.

**“Someday, in the distant future,
our grandchildren’s grandchildren will develop
a new equivalent of our classrooms.
They will spend many hours in front of boxes
with fires glowing within.
May they have the wisdom to know
the difference between light and knowledge”**

Plato (427-347 B.C)



Virtual Classroom Technology in Edusat for Rural Schools

VICTERS



THANK YOU