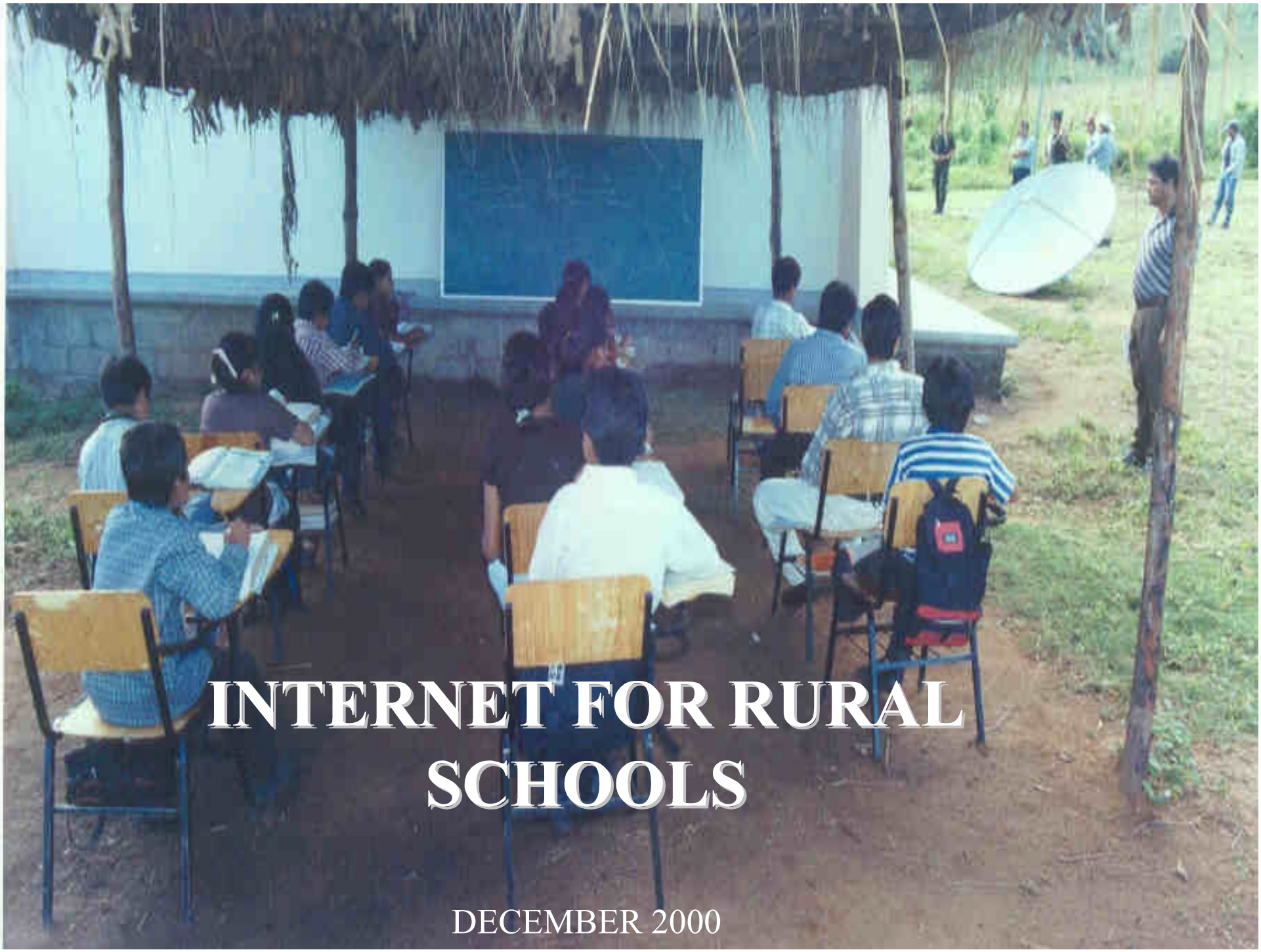
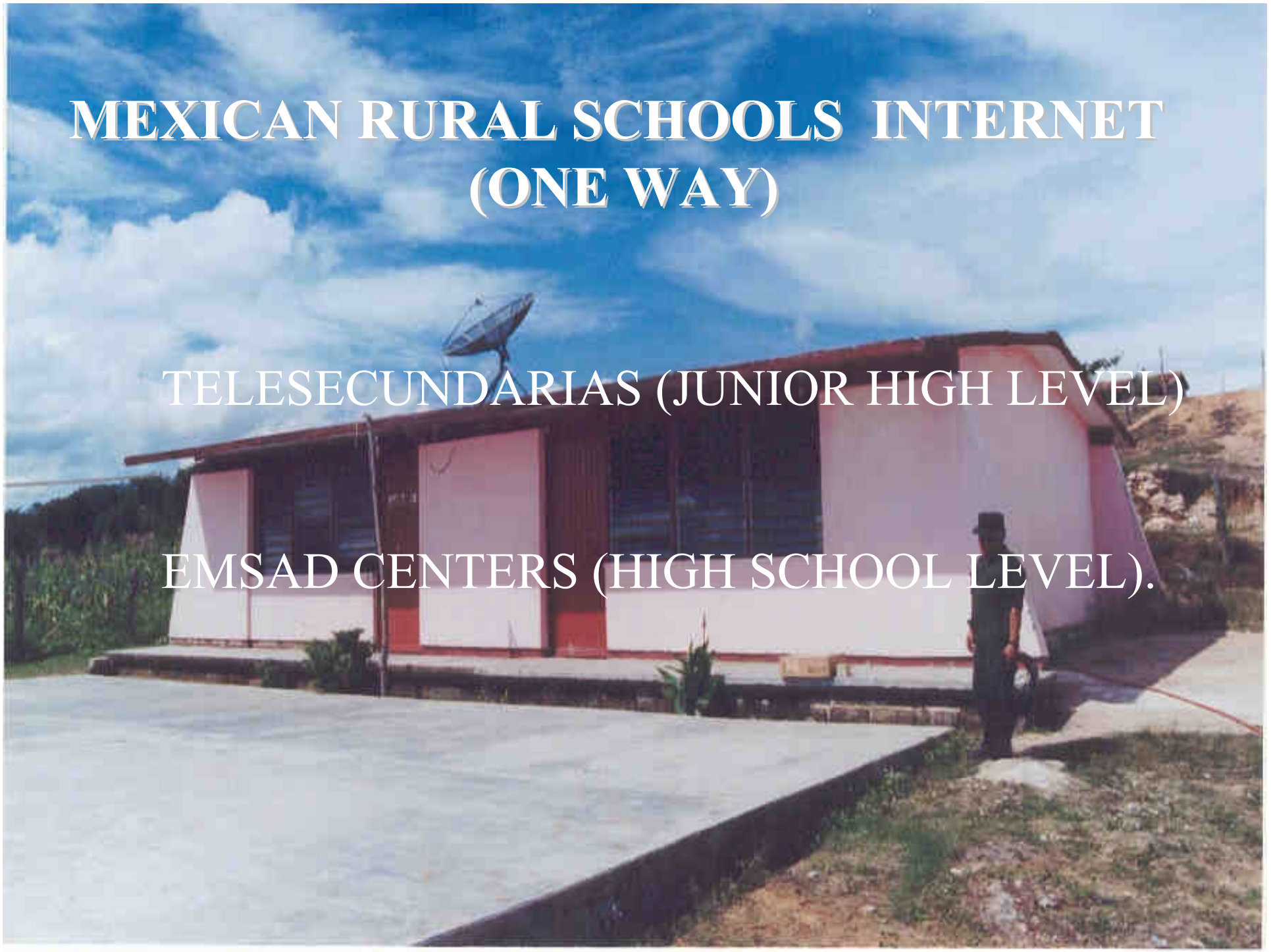


INTERNET FOR RURAL SCHOOLS

DECEMBER 2000

MEXICAN RURAL SCHOOLS INTERNET (ONE WAY)



TELESECUNDARIAS (JUNIOR HIGH LEVEL)

EMSAD CENTERS (HIGH SCHOOL LEVEL).

BACKGROUND EMSAD CENTERS

<u>School year</u> (1999-2000)

67	School Centers (High School level)
21	States
315	Teachers
3,432	Students

Technological Equipment EMSAD Centers

5 to 15	Computers (Pc´s)
1	Printer
1	EduSat TVRO system (decoder)

Objective

To implement the communications and information system required for Junior High School, in order to improve educational services.

Specific Objectives:

Integrate the use of the telecommunications to improve the teaching-learning process.

Foster academic and cultural exchange among students and teachers of the subsystem through collaborative projects.

Extend the opportunities for in-service and pre-service teacher training.

Design an Information System which will allow for the improvement of academic and administrative processes.

Characteristics of the communities

Participation of the community

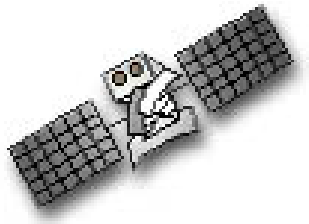
High participation

Poor telecommunication's infrastructure

- **45% without telephone lines (30 Centers EMSAD)**
- 40 % telephone booth (27 Centers EMSAD)
- 15 % telephone (10 Centers EMSAD)
- High operation expenses

Flexibility in the instrumentation of the model

Most important areas to work on:

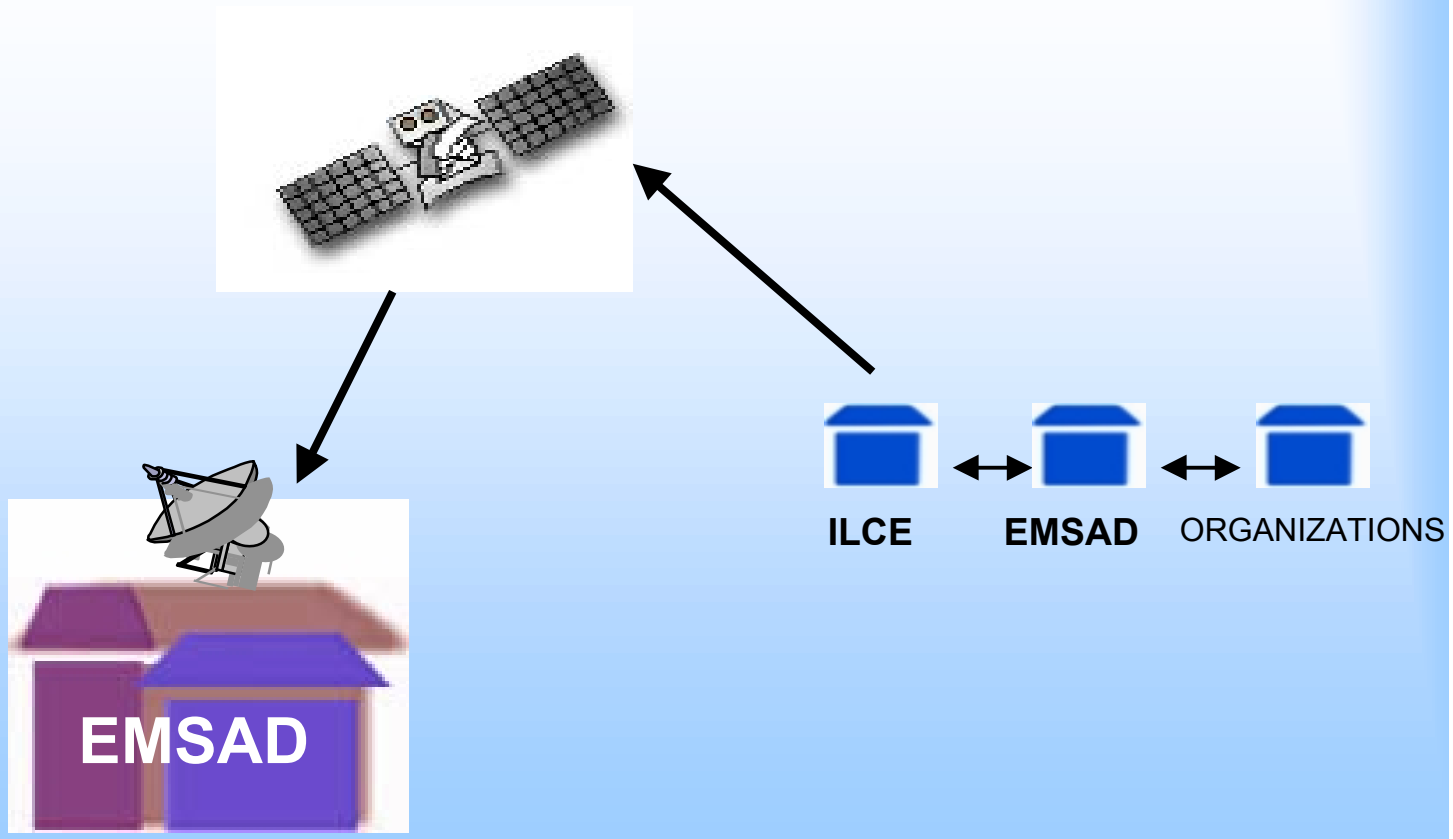


Access to information
Advisor training
Training and updating
In-line school control
- official communications
- enrollments
- grades
- evaluation process

Distance education services are required

Technological alternatives and costs

Data Casting Access to great amounts of information. Unidirectional communication



School

Technological alternatives and costs

4 Vsat: Bi-directional delivery of great amounts of information.

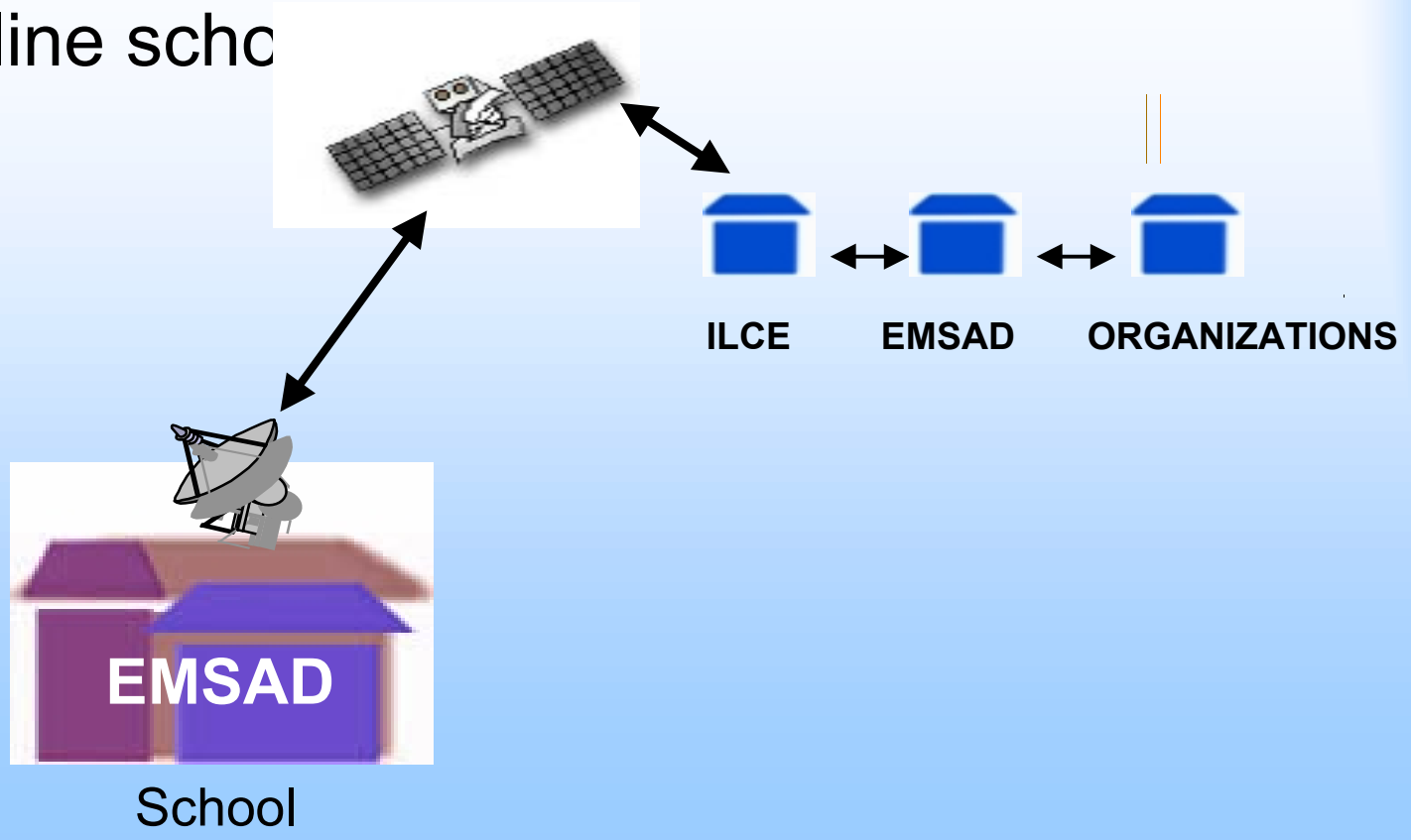
a. Services and equipment available for rent (Telmex)

b. Payable services and equipment finance. (Tachyon)

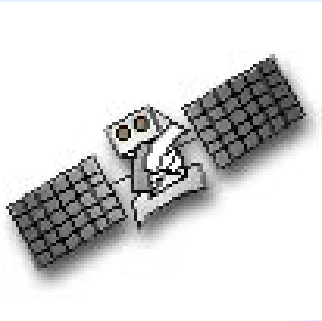
c. Equipment purchased by ILCE provides the required services

Technological alternatives

Vsat technology two-way satellite communication. Academic and cultural exchange, consulting and follow-up services and on-line scho



Technological proposal



Data Casting services

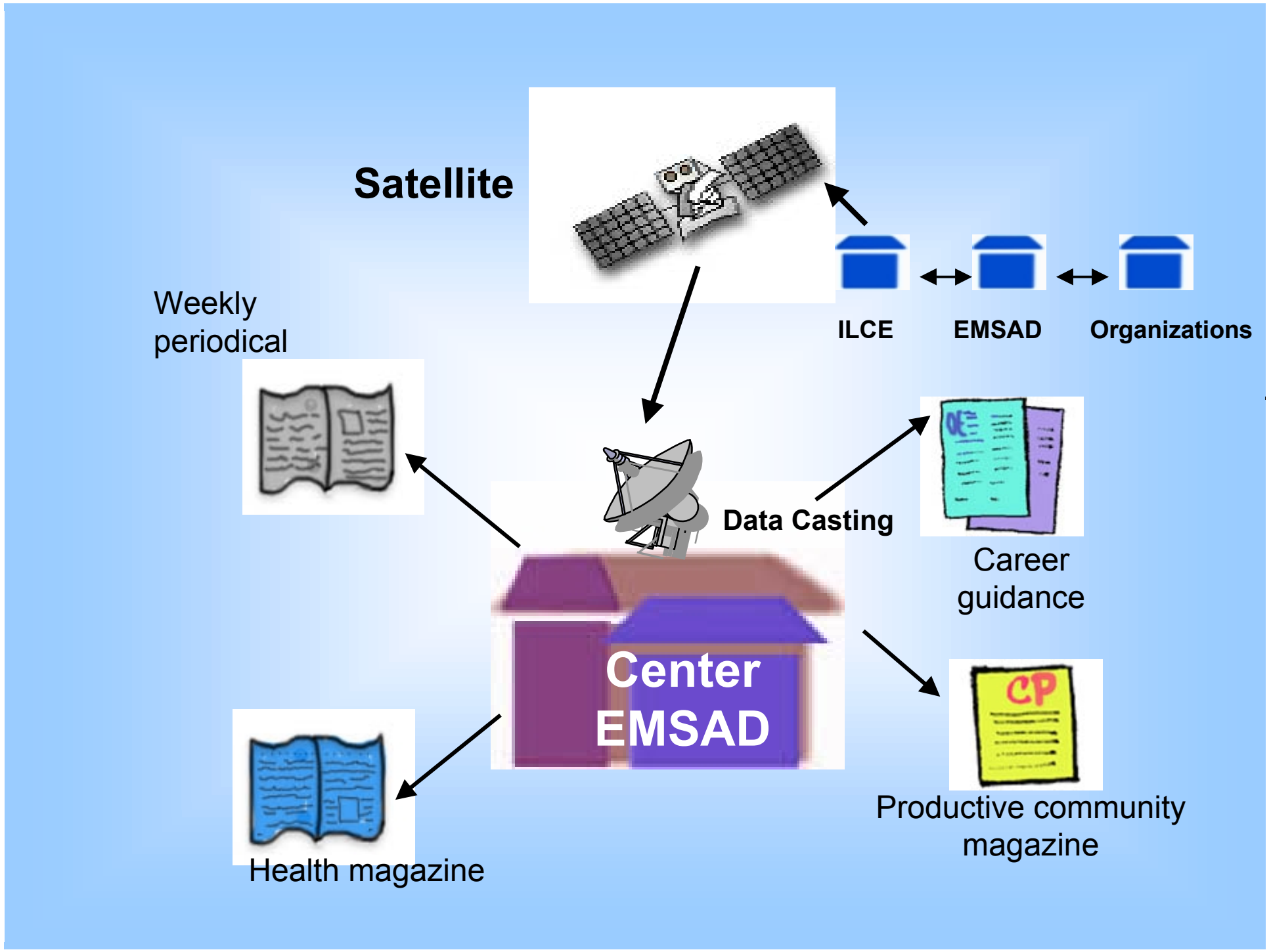
67 Centers	100 %

Access to the internet

4 Centers	Telephone line + access to the internet
10 Centers	Telephone line + 1-800 / L.D + internet

Costs (prior to the connection USD)

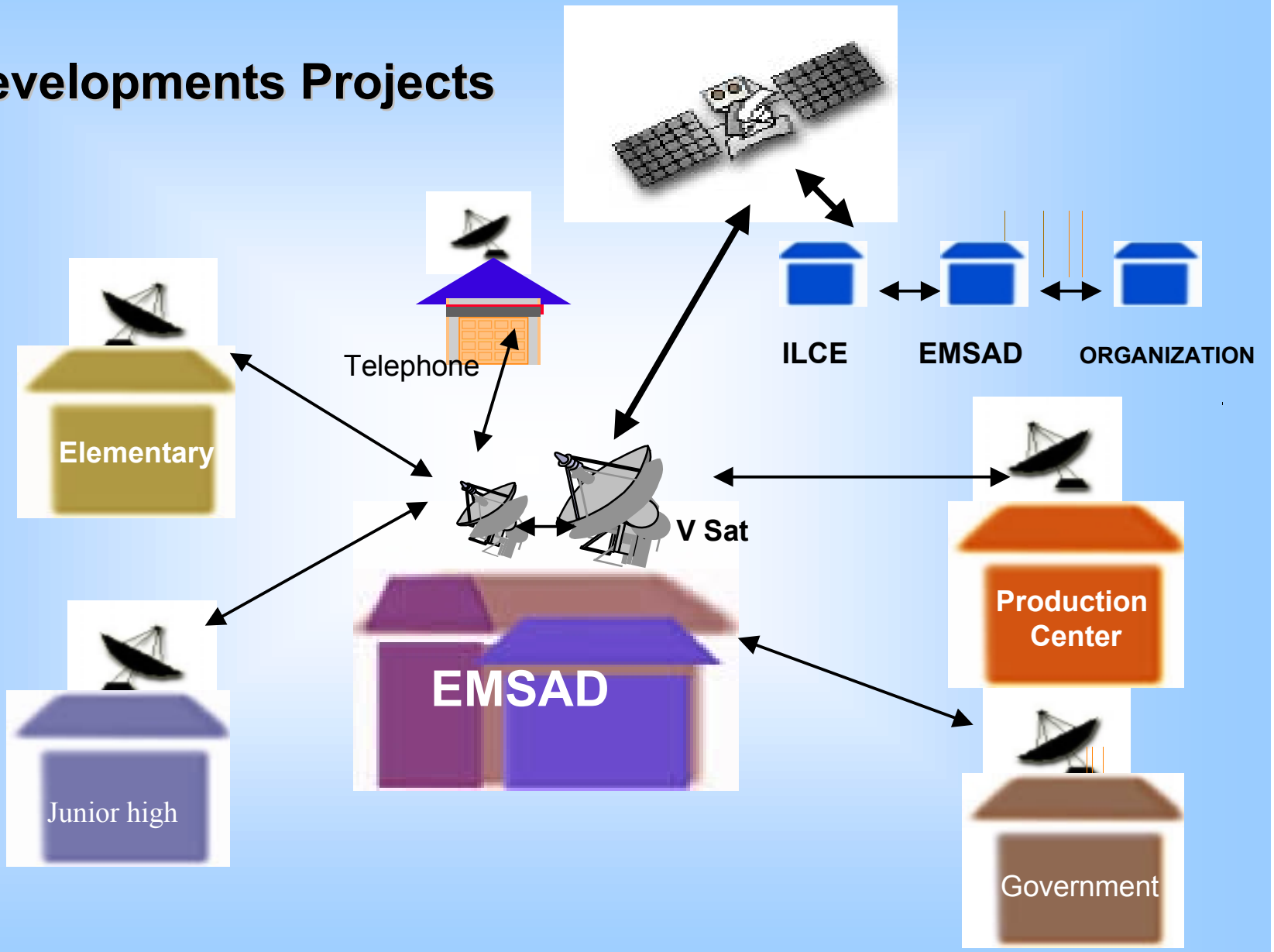
Investment costs by EMSAD center		
Network equipment	$	16,000
Training and installation	$	24,000
	$	**40,000**
Coordination equipment		
EMSAD computer equipment	**$**	**13,500**
Monthly operational costs		
5 Technical-Pedagogical Advisers	$	4,105
1 Responsible for the Web	$	600
	$	**4,705**


Satellite
ILCE
EMSAD
Organizations
Weekly
periodical
Data Casting
Career
guidance
Center
EMSAD
Productive community
magazine
Health magazine

Datacasting technology total cost USD (67 EMSAD Centers)

Investment costs	
Networks connection	$107,200,000
Installation costs	$120,600,000
Training	$40,200,000
EMSAD computer equipment	$8,550,000
Decoders	$102,300,000
Operation costs	
Annual Maintenance	$ 39,600,000
Web responsible (year)	$ 7,200,000
5 advisors (year)	$ 49,266,000
Total	**$ 47,491,600,000**

Developments Projects



PERSPECTIVE OF THE TELESECUNDARIA IN MEXICO

✔The average increase of Telesecundaria schools will continue at a rate of 1,000 schools per year.

✔We have training courses for in-service Telesecundaria teachers through out the country (*including technical teams for computers and technical pedagogical advisers*).

✔During this year we will have 2,500 schools with five computers each, participating on this experimental project: The use of computers systems on learning environments.

✔Finally the States will include in their own budget the investment for this infrastructure, as a good examples: ***Guanajuato, Jalisco and Hidalgo***.

FUTURE TRENDS

✓ We expect to have more than 5,000 schools installed with this computers systems at the end of year 2002 (Telesecundarias and EMSAD centers).

✓ Also at least 1,500 rural schools will have bidirectional communications.

✓ Satellite technology using Ku band and VSAT systems will be installed in 100 schools during the first quarter of 2001.