Satellite Communication for Higher Education

UNHAS' more than 25 year experience: 1983 – 2009
“From SISDIKSAT to PTIK”
1983 – 1994 SISDIKSAT

- USAID – BKS PTN INTIM (Eastern Indonesia Higher Education Association)
- Distant Education System via Satellite (Sistem Pendidikan Jarak Jauh melalui Satelit, SISDIKSAT), the largest in the world in terms of its area of coverage
- 2 (two) Analog SCPC dedicated Channels in loopback mode, Palapa satellite
- Audio-teleconference system, PABX, Fax and tele-blackboard
Participants (from east to west):

- UNCEN Jayapura
- UNCEN Manokwari (now Univ. Papua)
- UNPATTI Ambon
- UNSRAT Manado
- IKIP Manado (now Univ. Negeri Manado)
- UNTAD Palu
- UNHALU Kendari
- Remote Earth Station for Rural Satellite Applications at Wawotobi, South East Sulawesi
- IKIP Ujungpandang (now Univ. Negeri Makassar)
- UNHAS Makassar (as the Center Point)
- UNDANA Kupang
- UNRAM Mataram
- UNLAM Banjarmasin
- UNMUL Samarinda
- DIKTI Senayan
- IPB Bogor

1983 – 1994 SISDIKSAT
Main purposes:

- Courses Delivery
- Resource Sharing
- Demonstration of Advance Educational Technology application for higher education systems
1994 Introducing the INTERNET!

- Data Communication system replaced the audio-teleconference system
- The Analog SCPC Channel was utilized for packet data communication system using 1200 bps Packet Radio MODEM.
- Link to the INTERNET was first established experimentally via BPPT at Jalan M.H. Thamrin Jakarta to DIKTI Senayan via PSTN, connected to all SISDIKSAT sites via Analog SCPC Channel.
- The INTERNET was made available for the first time at the eastern region of Indonesia, even in such a remote places as Manokwari and Jayapura.
1994 – 2009 From 1200 bps to 40 Mbps Internet connection

1994: 1200 bps Packet Radio MODEM via SCPC in loopback mode

1996: Telkom granted an analog 14.4 Kbps Microwave leased line

1998: The Microwave link was terminated, a 64 Kbps VSAT connection was granted

2002: 256 Kbps link was leased from Indosat, then gradually upgraded to 512 Kbps up to 2 Mbps

2008: 40 Mbps link was leased from Astinet, TELKOM
Other RELATED PROJECTS

- **School on Internet (SOI)**, a 10 Mbps downlink, asymmetrical Internet connection for Video-Conferencing
- **Global Distance Learning Network (GDLN)**, a Video-Conference facility funded by the World Bank
- **Indonesian Higher-Education Network (INHERENT)**, a nation-wide project inter-connecting universities and higher-education institutions in a broadband data network. A “re-incarnation” of SISIKSAT in a wider version.
- **POSS**, a project with the Ministry of Research and Technology to promote the “Indonesia Goes Open Source (IGOS)” tag-line.
The former SISDIKSAT merged with the former Computer Center (PUSKOM) establishing the ICT Center (Pusat Teknologi Informasi dan Komunikasi, PTIK)

PTIK has at least 3 (three) missions:
- Establishing a reliable and continuous Internet service in and off campus
- Developing the integrated University Information System.
- Developing the Learning Management Systems for the Student Centered Learning (SCL).