Satellite Communication for Higher Education

UNHAS' more than 25 year experience:
1983 – 2009
"From SISDIKSAT to PTIK"

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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

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1983 – 1994 SISDIKSAT

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

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1983 – 1994 SISDIKSAT

Main purposes:
- Courses Delivery
- Resource Sharing
- Demonstration of Advance Educational Technology application for higher education systems

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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.

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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

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Other RELATED PROJECTS

➔ *School on Internet (SOI)*, a 10 Mbps downlink, asymetrical 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.

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2005 – now : PTIK (ICT Center)

➢ 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).

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