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Domestic Satellites Make Indonesia a Model of Telecommunications Development

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Our Palapa A Domestic Satellite System, named for a mythical fruit, was inaugurated on August 17, 1976, almost 30 years ago, and it was surprising how quickly our nation started enjoying the ease and speed of telephone connections from an affordable high quality direct distance dialed network. Prior to this, Indonesian inter-island public telecommunications were served mainly by way of High Frequency radio. Dependence on the ionosphere limited connections to a few hours a day. In addition to poor capacity and quality, anyone wanting to place a call had to make prior booking through human operators.



Satelindo's Ground Station

Therefore, telephone calls became social occasions that also provided an opportunity for other people to gather to witness a spectacle. This consisted of the talker shouting in vain, thus having a hard time at conveying the message; often, the connection abruptly ended due to failure of the connection. Only the rich could afford such expensive long distance privileges.

One could resort to telex at 50 characters per second by means of TOR (Telegraph on Radio), where most of the time the message was difficult to read, totally garbled, or even misplaced. The TV broadcast network provided over the satellite was previously non-existence as well. Instead, there were primitive movie theatres on open ground, often established spontaneously. These descriptions seem funny by today's standard, but indeed were a reality at the time.

Our introduction to satellite communications came on August 17, 1969, as a member of the INTELSAT consortium. Today, INTELSAT provides many of the same services between Indonesia and other countries. In contrast, the Palapa A Domestic Satellite System is dedicated to Indonesia, and is operated and owned within Indonesia itself. It began with just two Geostationary satellites, associated tracking and control stations, and forty large earth stations located throughout the islands. Thanks to the excellent cooperation with the system suppliers, we

Indonesians were able to independently and safely operate this huge and very sophisticated Domestic Satellite System within 18 months from inauguration.

Development didn't stop with the Palapa system for fixed telephone service and TV distribution - Digital GSM mobile service was rolled out in the 1990s to allow tiny handphones to roam about the country. Extension of GSM to areas outside the well developed islands of Java and Sumatra was made possible by way of satellite links. Although this was a phenomenal advancement, people are now taking it for granted - because the old generation already forgot, and the new generation never experienced the painfully poor communications of the past. Side by side with the phenomenal growth of PCs, practically every part of the country is able to enjoy colorful Internet connections, either from their respective home or from internet cafés, surfing a thousand times faster than the old telex system might deliver. Due to the reliability of data communication inside Indonesia, people are at ease in transferring large amounts of money by way of Internet home banking throughout the islands.

VSATs are also a popular means of extending networks for business. Surprisingly, many Automated Teller Machines are still dependent on VSATs, even though they are located in large cities such as Jakarta, Surabaya and Bandung.

That many citizens enjoy multiple channel digital quality TV throughout the islands is taken for granted as well. Thanks to our Domestic Satellite System, there are more than 10 national TV channels (in contrast to one government-run channel in 1976), most of them broadcast digitally throughout the nation,. The domestic Voice over IP telephony service is just being introduced as well, mostly by way of a prepaid card.

The telecommunication needs of Indonesia will continued to be served by a mix of digital microwave, digital terrestrial and under-sea fiber optic cable, as well as digital satellite links. Each of these technologies is applied according to its respective characteristics and economics. Together, they become the digital backbone with ever increasing speed, capacity, mobility, and affordability for delivery of multi-media communications throughout our sprawling equatorial belt of islands.

Being a very large country consisting of thousand of islands, indeed Satellite Communication helps cross the Digital Divide in Indonesia. The paper that follows should give the reader a good perspective on the progress we are making and the goals we still intend to achieve.