

Mridul Chowdhury, *Harvard University*
with Hermanto Murniadi, Jr., *Cisco Systems Indonesia*

“ Indonesian telecommunications and IT companies are too dependent on foreign investment. Local financing options should be developed to reduce this dependence.”

—Executive of IT company, Indonesia

“ We suggest that the politicians and government officials quit fighting each other and start building.”

—Manager of Indonesian IT Company

Indonesia's gradual progress in laying the foundation for Networked Readiness was severely thwarted by the Asian financial crisis in 1997 and the political turmoil it precipitated. With dwindling GDP per capita and rising unemployment, the domestic market for ICT products and services shrank rapidly. Foreign investment in the IT and telecommunications sectors declined sharply. Political unrest seriously slowed implementation of the Nusantara 21 Project, the national initiative to connect Indonesia's major islands and cities by satellite and submarine and terrestrial cable. However, as the country's economy has gradually revived and the political situation has stabilized, enthusiasm and optimism surround the prospects for ICTs' role in rebuilding Indonesia. The nation ranks fifty-ninth overall in Readiness for the Networked World.

There has been rapid growth of teledensity in Indonesia from very low levels at the beginning of last decade. However, telephone access is still highly concentrated in a few of the major cities. The dominance of two government-run fixed-line operators and lack of an independent regulator have contributed to keeping telephone charges unaffordable to a vast majority of Indonesians (Ranking in Effect of Telecommunications Competition: 48). Competition in the mobile sector has boosted growth in the mobile telephony market, but the level of penetration is still low compared to that of many of Indonesia's neighbors.

Indonesia's geographic makeup, comprising thousands of islands, renders particular challenges in developing a fiber-optic-based national infrastructure. Internet services are limited to a handful of cities. Fiber-optic cable is being laid out aggressively in the major cities. A relatively popular mode of household connectivity is a “set-top box” that connects television sets to the Internet

through dial-up. With broadband access still rare, leased lines and VSATs typically provide high-speed Internet access to businesses.

The Internet has been heavily embraced by urban, middle-class Indonesians, particularly students. Due to low teledensity and low PC penetration, a majority of Internet users access the Internet through Warung Internet (Internet cafés), a booming phenomenon in the major cities. E-mail, Internet telephony, online chatting, and accessing news are the biggest uses of the Internet in the country. Since the Indonesian media was strictly controlled by the government for several decades during Suharto's regime until 1998, a suppressed thirst for news and objective information has led to an explosion of demand for news portals on the Internet.

In business and government institutions, the Internet is still not generally perceived as any more than an efficient tool for basic information exchange such as e-mail. While, in theory, Indonesia's demographic characteristics would seem to make the Internet an ideal medium to reach markets spread across numerous islands, e-commerce activities in Indonesia are rather limited (Ranking in e-Commerce micro-index: 39), except in multinational companies and some banks. In the government, greater use of ICTs is beginning to emerge with the use of *Siskom Dagri*, the national government network that connects the central government to district governments (Ranking in e-Government micro-index: 62).

Key Facts

Population	212,000,000
Rural population (% of total population) 1999	60.16 %
GDP per capita (PPP)	US\$3,014
Global Competitiveness Index Ranking, 2001–2002	64
UNDP Human Development Index Ranking, 2001 (adjusted to GTR sample)	65
Main telephone lines per 100 inhabitants	3.14
Telephone faults per 100 main telephone lines	7.44
Internet hosts per 10,000 inhabitants	1.26
Personal computers per 100 inhabitants	0.99
Piracy rate	89.00 %
Percent of PCs connected to Internet	1.27 %
Internet users per host	54.25
Internet users per 100 inhabitants	0.68
Cell phone subscribers per 100 inhabitants	1.73
Average monthly cost for 20 hours of Internet access	US\$6.67

RANK

Networked Readiness Index **59**

Network Use component index **61**

Enabling Factors component index **57**

■ Network Access **55**

Information Infrastructure 42

Hardware, Software, and Support 68

■ Network Policy **59**

Business and Economic Environment 62

ICT Policy 55

■ Networked Society **47**

Networked Learning 49

ICT Opportunities 29

Social Capital 64

■ Networked Economy **53**

e-Commerce 39

e-Government 62

General Infrastructure 59