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“ Investment in new IT projects is practically nonexistent, as the only financing is through banks that require physical guarantees and charge rates of 14 to 16 percent in dollars.”

—*Bolivian IT manager*

“ The market opening should bring significant benefits to the common Bolivian businessperson due to price reductions in communications...making the entire country more competitive.”

—*Bolivian IT executive*

The Networked Readiness environment in Bolivia changed monumentally on November 27, 2001, with the opening of telecommunications markets and an end to long-standing monopolies on international data transmission, long-distance telephony (national and international), and local telephony. Efforts are underway to address core national needs for greater economic and educational opportunity with technology. This new landscape confronts a deficient communications infrastructure, remote and inhospitable terrain, culturally diverse and poor population with high illiteracy, small market, and difficult business environment. Bolivia ranks sixty-seventh overall in the Networked Readiness Index.

In 1994, the government ceded 51 percent of state-run ENTEL and granted long-distance exclusivity to Telecom Italia in exchange for a US\$610 million investment in ENTEL. Nine cooperatives around the country enjoyed local telephony monopolies within their respective regions.

Deregulation was regarded as transparent, in contrast to repeated allegations of corruption and regulatory shortcomings in Bolivia's telecommunications history. Regulator SITTEL will issue licenses within four years to all parties agreeing to cover Bolivian towns with more than 10,000 inhabitants, provide some free Internet connectivity to public schools, and put up a cash guarantee.

Long distance services include voice, data, or video between departments or internationally, so licensees can also offer data and Internet. Traditional niche players, such as Telecel (cellular) and ITS (cable television), can capitalize on their existing user bases and offer new services. Many existing cooperative telecommunications companies have united to form Boliviatel to leverage their local presence and compete against larger players ENTEL, AES, and COTAS (the largest cooperative outside Boliviatel).

Companies plan a postderegulation mix of new and existing infrastructure; some are investing in fiber cable, but most are planning to mount Voice over Internet Protocol (VoIP) service on existing fiber and satellites. Cable broadband and DSL are becoming available in Bolivia, but have few users (Ranking in Availability of Broadband: 64).

The public education system offers very little access to ICTs, and primary and secondary education is generally poor despite reforms (Ranking in Internet Access in Schools: 65). Although Bolivian curricula are often out of synch with private-sector needs, higher education is of higher quality, but unreachable for most of the populace.

The dial-up Internet market has stagnated due to Bolivia's economic recession, but Bolivia fares well globally with respect to public Internet access (Ranking in Public Access to the Internet: 23), because people prefer public-access points to expensive PCs and cooperative telephone lines (US\$1,500 to purchase a line in La Paz). As a result of competition, new Service Level Agreements for data allow customers to shop for price and previously unavailable quality, but Internet use will grow slowly unless the economy improves.

Bolivia has undertaken significant macro-economic reforms in recent years, but suffers from an unwelcoming business environment fraught with red tape, limited access to capital, and corruption (Ranking in Business and Economic Environment micro-index: 67). There are successful software services companies, but market size, lack of credit cards, and archaic commercial procedures have impeded e-commerce.

Most government organizations are online or in the process of becoming so, which is improving transparency and information availability, and will likely continue.

## Key Facts

Population	8,329,000
Rural population (% of total population) 1999	38.10 %
GDP per capita (PPP)	US\$2,408
Global Competitiveness Index Ranking, 2001–2002	67
UNDP Human Development Index Ranking, 2001 (adjusted to GITR sample)	66
Main telephone lines per 100 inhabitants	6.17
Telephone faults per 100 main telephone lines	NA
Internet hosts per 10,000 inhabitants	1.59
Personal computers per 100 inhabitants	1.20
Piracy rate	81.00 %
Percent of PCs connected to Internet	0.95 %
Internet users per host	82.28
Internet users per 100 inhabitants	0.96
Cell phone subscribers per 100 inhabitants	5.16
Average monthly cost for 20 hours of Internet access	US\$9.07

**RANK**

## Networked Readiness Index **67**

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### Enabling Factors component index **69**

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Information Infrastructure 63

Hardware, Software, and Support 72

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