Telecommunications in Guatemala: Do Opportunities Outweigh Obstacles?

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Executive Summary

Opportunities seem to outweigh obstacles in Guatemala's dynamic telecommunications market. However, a crucial caveat accompanies this determination: it is a subjective conclusion, based upon trends and past events. It is much easier to quantify and evaluate Guatemala's opportunities than her obstacles, the most volatile of which hinge upon political, legal and regulatory actions in an environment with poor transparency and byzantine decision-making.

To reach this conclusion, this analysis examines the fundamental issues and trends in Guatemala's telecommunications market. The market environment is portrayed by examining telecommunications reform and liberalization, and the essence of the market's opportunities and obstacles are presented against the backdrop of the environment. A meticulous description of all opportunities and obstacles is beyond the scope of this analysis.

After a gradual democratization process took root in the mid-1990s, telecommunications reform became a national priority when political and business leaders realized that Guatemala's neglected infrastructure was an impediment to economic development. In 1996, legislators crafted the General Telecommunications Law, an innovative decree that liberalized the industry, introduced competition, and established a quasi-independent regulatory authority.

Liberalization began with restructuring and privatizing the bloated, state-owned telecommunications monopoly, TELGUA. After a year that saw four aborted or postponed auctions, the Concession Board took just 30 minutes to decide to sell TELGUA to Luca, S.A., a little-known consortium of local investors that was not qualified until a last-minute rule change. The controversial sale highlights the transparency issues that plague competition and foreign investment in Guatemalan telecommunications.

Nevertheless, Guatemala was lauded for instituting four basic building blocks of telecommunications competition: industry restructuring, unbundling, equal access and interconnection. More than 200 firms have found the competitive environment inviting enough to enter the market. Major threats to TELGUA's stranglehold on full service

telecommunications arise from firms with hemispheric strategies like Bellsouth and Telefonica de España.

If profit opportunities are greatest where teledensity lags, then Guatemala is certainly the region's most promising market. The economy is booming--growth in real gross domestic product is projected to exceed 4% through 2002, and nearly 10% of the 11-million population is on the waiting list for basic service installation. The 1998 teledensity of 4.1 seems destined to grow another 70%. Guatemala's growth guarantees opportunities for equipment sellers and rural telephony as well as service providers.

Obstacles encompass technical, financial, labor, marketing, legal and regulatory pitfalls. Major concerns include a public switched network that desperately needs modernization, foreign exchange risks, a telecommunications labor pool with poor work ethic, potentially violent labor unions, and high poverty. Yet, the most serious obstacles concern rule of law in an ancient land where democracy is new, legal foundations are not based on common law, and transparency is notoriously poor. The new regulatory authority has shown leadership, but has also declared that Guatemala's legal framework lacks sufficient authority to force firms' compliance with the telecommunications law (e.g., interconnection). Regardless, new market entrants and consumers are fighting together for a competitive, transparent environment.

Table of Contents

Executive Summary ii

Introduction 1

Reform 1

- Guatemala's Telecom Industry 1971 - 1996 1
- Telecom Reform Becomes Necessity 4
- The General Telecommunications Law 5

Liberalization 6

- Restructuring GUATEL 6
- Privatizing GUATEL 7
- Privatization and Transparency Issues 9
- Competition's Building Blocks 10
- Competitors 13

Opportunities 15

- The Market 15
- Equipment Opportunities 18
- FONDETEL and Rural Telephony Opportunities 18

Obstacles 19

- Technical Obstacles 19
- Financial Obstacles 20
- Human Resources and Labor Obstacles 21
- Marketing Obstacles 22
- Legal and Regulatory Obstacles 22

Conclusion 24

Abbreviations and Acronyms 25

References 26

Appendices

Appendix A. Equal Access in Guatemala A-1

Appendix B. Telecom Registry B-1

Appendix C. Social Process Analysis: Cultural Dynamics in Guatemala C-1

List of Tables and Figures

Table 1. Early Entrants in Niche Markets of Guatemalan Telecom (1960-1991) 3
Figure 1. Guatemalan Population Concentration 15
Figure 2. Guatemala: Increasing Telephone Main Lines 16
Figure 3. Guatemala's Telecom Equipment Market 17

Introduction

Millions of Guatemalans are accustomed to spending hours walking for miles or taking the bus to conduct a simple business or personal transaction that might take five minutes on a telephone. In Guatemala, telephone service is a luxury that has long been out of reach--or at least very inconvenient--to the bulk of the populace. However, a telecommunications revolution began benignly in an ambitious new telecommunications (telecom) law enacted by Guatemalan legislators in late 1996. A skeptical public saw no action until October 1998, when the Government of Guatemala finally sold its state-owned monopoly telephone company. The sale was greeted with enthusiasm and optimism by some. Yet others loudly criticized the sale as "the pawning of the people's property" (Guatemala News and Information Bureau (GNIB), Privatization lurches forward). In addition to controversy, the sale generated immediate revenue for the national treasury, as well as promises to immediately improve the quality, breadth and depth of telecommunications services for Guatemalans. More importantly, it signaled Guatemala's determination to radically transform its telecom sector.

For foreign telecom firms, Guatemala's actions signaled a market opening for services and equipment. With a booming economy and one of Latin America's least developed telecom infrastructures, opportunities seem to abound in local, domestic and international basic and non-basic services (U.S. International Trade Administration (USITA), Telecommunications Market). However, numerous obstacles underlie the hype. Foreign firms face many challenges unique to Guatemala. For example, Guatemala's virgin regulatory environment has just begun to be tested. The foremost question for foreign telecom firms pondering market entry or expansion in Guatemala is: do opportunities outweigh obstacles? To answer this question, this study examines Guatemala's telecom market environment, and identifies and analyzes the major opportunities and obstacles. Appendices provide relevant research sources and reference data.

Reform

Guatemala's Telecom Industry 1971 - 1996

From 1971 until the mid-1990s, Guatemalan telecommunications was synonymous with the state-owned telecom monopoly, Empresa Guatemalteca de Telecomunicaciones (GUATEL).

GUATEL was an "inefficient cash cow" that served as "the petty cash box for the government" (Reuters, Guatemalans hope). In 1996, for example, about half of GUATEL's US$100 million in profits was siphoned off to the national treasury. For twenty years GUATEL's mission focused solely on national security as a succession of military dictators and civilian puppets ruled the nation, conducting brutal campaigns against the rebel Unidad Revolucionaria Nacional Guatemalteca (URNG)--and anyone else perceived to be unpatriotic. GUATEL was a "tool of military rulers who used phone lines to spy on enemies" and enrich themselves. Getting a GUATEL job required a recommendation from a "friendly army insider."

For consumers, GUATEL meant astronomical long distance prices, constant busy signals, inexplicable cut-offs, lines crossed, and six months to change one's billing address--with the help of a lawyer. Lucky consumers paid more than a thousand dollars each up front, then waited more than a year for GUATEL to install their telephones. Others joined the endless waiting list, while probably hundreds of thousands of people who wanted telephones gave up hope. Less fortunate consumers could be found in the lines that snaked around the GUATEL office in every city and sizeable town, hoping that the surly staff might connect their long distance calls. The monopoly had 20 employees per thousand lines, compared to an international average of four per thousand (Reuters, Guatemalans hope). More than a million requests for telephone installation waited hopelessly in GUATEL inboxes.

Other minor players operated in unregulated areas of Guatemala's telecom sector, but none competed directly with GUATEL. Since 1960, commercial trunked radio provided service on the SMR band. Paging arrived in Guatemala in 1972. Cellular service began with a 1990 concession to Comunicaciones Celulares, S.A. (COMCEL)/Millicom, which, by 1998, expanded its urban and rural network to more than 30 cell sites emanating from seven major cities and encompassing more than 80,000 subscribers (USITA, Guatemala - Telecommunications Market). Also in 1990, two satellite concessions for international business services (IBS) were awarded. Electronic data services became available in 1991. In 1995, several firms initiated Internet service and cable television programming. Table 1 lists the early entrants in niche markets of Guatemalan telecom. The rapid development and popularity of

new services made it obvious that Guatemala needed a modern, non-partisan regulatory authority dedicated to the telecom sector.

Table 1. Early Entrants in Niche Markets of Guatemalan Telecom (1960-1991)

Firm	Niche
Alitel	Trunked radio
COMCEL	Cellular
Comunicaciones Centroamericanos (CENTRACOM)	Trunked radio
Contactel	Paging
Corporacion Radio Electronic Industrial (CRELOSA)	Trunked radio
Delphi	Electronic data services
Empritel	IBS
Geonet	Electronic data services
Pagemart	Paging
Skytel	Paging
Tele Escucha/Motorola	Paging
Telepuerto	IBS

Telecom Reform Becomes Necessity

The end of the Cold War triggered GUATEL's creeping mutation to a privatized, modern telecom. As Guatemala's long-running civil war petered out and democratization took hold, elected politicians soon realized that providing efficient telecommunications wins votes (Foley, A rural idea). They were surely spurred by Chile's example, where telecom privatization and liberalization in the late 1980s had spawned a dynamic telecom market that generated revenue for the treasury, created jobs, and helped other industries flourish (Lerner, Don't forget Central America). Officials recognized that "telecommunications is an essential infrastructure for successful economic development" (Noam, Telecommunications in Latin America). Both public and private sectors believed that high unsatisfied demand, low service quality, user dissatisfaction and "political tariffs" on telecommunications were retarding national growth (Urizar, Keeping afloat). Indeed, the U.S. Foreign Commercial Service's Country Commercial Guide (CCG) for fiscal year (FY) 2000 states, "The underdevelopment of Guatemala's infrastructure remains and will continue to be a significant obstacle to investment and economic development." In 1995, the Ministerio de Comunicaciones, Transporte y Obras Publicas (MCTOP), the Ministry of Communications, Transportation and Public Works, began working on a three-pronged reform program that aimed to:

1) De-monopolize the telecom sector and introduce competition

2) Reorganize GUATEL

3) Introduce legislation for telecom reform.

At least one early attempt to introduce competition failed, apparently because of the nebulous legal framework. In mid-1995, President Ramiro de Leon tried to auction a Band-A cellular concession to compete with the lone cellular provider, COMCEL. Interested companies paid US$10,000 just to obtain rules for participation (Ibarguen, Public bidding process). Eleven companies from Guatemala, Mexico and the U.S. bid. To their surprise, the government cancelled the auction, citing "irregularities in all of the submissions" (USITA, Guatemala - Telecommunications Market). Several bidders challenged this decision in court, and fought it unsuccessfully for the next three years all the way to Guatemala's Supreme Court. Guatemala lacked the laws and regulations to minimize such disputes and make the process of auctions, licensing and contract awards transparent.

The General Telecommunications Law

On January 12, 1996, Alvaro Arzu Irigoyen became the fourth consecutive constitutionally-elected president of Guatemala. He promptly removed many corrupt government officials, vigorously pursued peace negotiations with the URNG, and quietly began drafting a proposal for new telecommunications legislation. Decree No. 94-96, Ley General de Telecomunicaciones (LGT), the General Telecommunications Law, was quickly approved by Guatemala's Congress and published on December 18, 1996. It was a sweeping piece of legislation that created a dedicated telecom regulatory authority and opened competition in local, domestic and international basic and value-added services (USITA, Guatemala - Telecommunications Market).

The Superintendencia de Telecomunicaciones (SIT), the Superintendency of Telecommunications, was created as a semi-autonomous regulatory authority operating under the MCTOP. SIT is responsible for allocation of spectrum, license issuance, and regulation of the liberalized telecom sector, including rule-making, conflict resolution and doling out penalties for non-compliance with regulations. The law also grants the Superintendent "all the

legal faculties to act judicially and extrajudicially in the field of his competence," although, later events would prove this declaration to be imprecise (LGT, Title II, Article 6).

The LGT also paved the way for liberalization and competition in telecom. It mandated:

1) "Cost-based interconnection for all telecommunication carriers" (Spiller, Frontier of Telecommunications Deregulation).
2) Services which network operators must offer to their competitors.
3) Arbitration to resolve disputes and avoid protracted litigation (using a mechanism called final offer or pendulum arbitration).
4) Non-discriminatory equal access for consumers to choose their carrier.
5) Unbundling of basic network elements and services (e.g., loops, ports, switching and signaling).
6) El Fondo para el Desarollo de la Telefonia (FONDETEL), the Fund for Telephony Development, which will skim fees from telecom services to bankroll Guatemalan-style universal service programs for rural and low income consumers.

The LGT was hailed as innovative and bold legislation that proved the viability of "facilities-based telecommunications competition" (Spiller, Frontier of Telecommunications Deregulation). However, future events would show that enforcing the LGT is much more difficult than enacting it.

Liberalization

Restructuring GUATEL

Privatization of GUATEL topped Guatemala's agenda for liberalization of the telecom sector. Guatemalan officials worried that foreigners might be reluctant to invest in GUATEL because of fears that the "Asian contagion" (i.e., the currency and financial crisis) might somehow infect Latin America (Morri, Investors speak Latin). Thus, they began sprucing up GUATEL to make it more attractive to investors. Preparation began with restructuring in

January 1997, just weeks after passage of the LGT. GUATEL got loans for hundreds of millions of dollars and embarked on a crash program to make itself more attractive to investors (Reuters, Guatemalans hope). Of course, GUATEL's future investor[s] would have to repay these loans. It seems that an organization with GUATEL's record of inefficiency should have allowed the future investor[s] to perform many of the improvements that were tackled with the loans. Nevertheless, GUATEL installed 75,000 lines, digitalized lines in Guatemala City, awarded Alcatel a contract to develop a 1,200-kilometer (km) national fiber optic network, and even "spiffed up the furniture at company headquarters" (Reuters, Guatemalans hope, and Jacobs, Telecommunications in Guatemala). In a wise move to sidestep laws aimed to discourage layoffs, GUATEL enticed many employees to resign with an attractive severance package. It then "rehired them the same day under new contracts that make it cheaper and easier for the new owner... to fire them" (Reuters, Guatemalans hope).

In February 1997, SIT gave GUATEL freedom to price local service (then fixed at a monthly service fee of about US$0.75), subject to an "informal price cap" (Spiller, Frontier of telecommunications deregulation). Before this "rebalancing," GUATEL cross-subsidized local service worth US$3.3 million per month by charging outrageous international long distance rates. Under the new pricing scheme, monthly service fees were dropped and billing commenced on a usage basis: 3.3 to 2.5 cents per minute locally, and 6 to 4 cents per minute for domestic long distance (USITA, Guatemala - Telecommunications Market). Meanwhile, long distance rates were decreased to more reasonable levels. Pay phone rates remained subsidized. Other restructuring efforts continued until investors were prequalifying to bid for GUATEL. For instance, in August 1997, the company hired Nortel to install a wireless network.

Privatizing GUATEL

As GUATEL continued restructuring, the Government of Guatemala retained J.P. Morgan Securities to auction between 51% and 95% of the enterprise to "a strategic investor" (J.P. Morgan, Empresa Guatemalteca.). A 5% share of GUATEL would be held in reserve for purchase by GUATEL employees. The government's target selling price was between US$700 million and US$800 million, based upon a benchmark of US$2,000 per installed line (Reuters, Guatemalans hope). Guatemala was hoping to attract "an experienced international carrier" to

invest and revitalize GUATEL (Telecommunications Reports International (TRI), Guatemala invites). In fact, the rules required that any bidding consortium be at least 20% owned by a telecom operator. Five companies prequalified in August 1997 for the October auction: France Telecom, GTE, MCI, SBC and Telefonos de Mexico (TELMEX) (USITA, Guatemala - Telecommunications Market).

The auction was delayed (for reasons that are unclear) until December 1997. Meanwhile, on November 19, 1997, the Guatemalan Congress amended the LGT, tacking on a number of anti-competitive stipulations, allegedly to make GUATEL more attractive to investors. The amendment extended GUATEL's monopoly until July 1999, required international service providers to pay an exorbitant 70% accounting rate to GUATEL, allowed GUATEL to discriminate between operators (e.g., by charging different operators different prices for the same service), and postponed the requirement for number portability (USITA, Guatemala - Telecommunications market). These changes shook investor confidence in Guatemala's regulatory stability. As a result, only one bid was submitted--from a TELMEX consortium that included France Telecom and SBC. It offered US$529 million for 95% of GUATEL, which, in light of GUATEL's US$240 million debt and its own benchmark pricing, seemed fair (USITA, Guatemala - Telecommunications market, et al.). Nevertheless, the bid was rejected as being too low.

Again the auction was delayed, first being rescheduled for April 1998, then postponed until July 1998, and again until September 1998. TELMEX, Deutsche Telekom, GTE, Telefonica de España expressed interest in the bidding. France Telecom partnered with a fledgling Guatemalan telecom, Telered. An infant consortia named Luca, S.A. also expressed interest in the bidding (USITA, Guatemala - Telecommunications Market). Bidding consortia were still required to include at least one telecom operator among their members.

Sometime during the months between bids, GUATEL changed its name to Telecomunicaciones de Guatemala (TELGUA).

Bidding opened on September 25, 1998, but was suspended due to "instability on global stock markets" (Zubieta, Economy - Guatemala). On September 29, the Government surprised observers by announcing that the auction would occur the following day. Also on that day, the

Government changed the bidding rules to allow Luca to participate. Instead of requiring that a telecom operator be part of any bidding consortium, a bidder just had to demonstrate that it was "working closely with an international operator" (USITA, International Market Insight (IMI) - TELMEX to be international operator).

"On October 1," reported the Guatemala News and Information Bureau, "TELGUA directors and government officials took less than 30 minutes to accept the offer of US$700 million from the business consortium Luca, S.A. to buy 95% of the telephone company's shares." Ten days later Luca agreed to make the first US$200 million payment when sale negotiations finished. The remainder was due in two installments: US$150 million in 18 months, and the US$350 balance in 36 months (USITA, IMI - Privatization).

Luca, S.A. was a mystery. The U.S. & Foreign Commercial Service initially described it as "a Central American investment group," owned by 16 Guatemalan and Honduran investors (USITA, IMI - TELMEX to be international operator). Subsequently, Luca's owners were revealed as Grupo Bancrecer, Centrans International, Optimal Investment Financial, and Grupo Finsa Banco Americano, none of them well-known firms. Ownership is reportedly 75% Guatemalan and 25% Honduran. Ricardo Bueso, Luca's red-bearded president, admitted that his firm "does not have much experience in telecommunication" (GNIB, Privatization lurches forward).

Privatization and Transparency Issues

Within a week of the acceptance of Luca's offer, Guatemala was in an uproar over the "snap sale" of TELGUA (Zubieta, Economy - Guatemala). In a very rare instance of unity, both left-wing and right-wing voices joined the clamor over the lack of transparency (Radio Nederland, Noticias). "The TELGUA affair is the shadiest and most irregular business ever conducted in the public sector," commented the leader of the right-wing opposition party. The leader of a left-wing party insisted that Congress investigate the "absolute secrecy" in which the sale was conducted. A leader of the Guatemala General Workers Federation deplored "the pawning of the people's property." Even before Luca made its first payment, rumors circulated that the firm included members of the presidential family (GNIB, Privatization lurches forward, and Zubieta, Economy - Guatemala).

The last-minute rule change in favor of Luca bred skepticism. Originally a strategic goal of privatization was to attract an experienced, well-capitalized international operator to Guatemala. Luca was "given the green light to buy TELGUA after assuring that they had already made contact with prestigious international telephone companies," however Luca refused to divulge the identities of the companies it had contacted (GNIB, Privatization lurches forward). To close the sale, Luca had to present a signed contract with an international operator. France Telecom, which had recently entered El Salvador's telecom market, was rumored to be the partner (Zubieta, Economy - Guatemala). However, on October 10, 1998, Luca announced that TELMEX had not only contracted to provide TELGUA the requisite technical expertise, but would purchase 49% of Luca as well (USITA, IMI - Privatization).

Despite "several unsuccessful constitutional challenges" and the scrutiny of legislators, the TELGUA sale was consummated. On November 5, 1998, Luca paid US$200 million and formally took charge of TELGUA (USITA, Guatemala - Telecommunications market).

Competition's Building Blocks

Four basic building blocks of competition were instituted by the original 1996 LGT: industry structure, unbundling, equal access and interconnection (Spiller, Frontier of telecommunications deregulation). Guatemala was lauded for creating an atmosphere in which competition in facilities-based telecom could supplant a statist monopoly.

The pre-LGT industry structure featured GUATEL/TELGUA as a vertically integrated monopoly. In contrast to US telecom reform, Guatemalan reformers decided to allow the incumbent to remain vertically integrated--selling long distance and variety of other specialized services in addition to basic service. In theory, the LGT was also understood to "expose [the incumbent TELGUA] to unfettered entry of any kind right from the start" (Spiller, Frontier of telecommunications deregulation). However, market entry hinged upon unbundling, equal access, and interconnection.

Unbundling is addressed in the LGT by defining "essential resources" to which access must be provided:

1) "Termination in the network of one of the parties, of telecommunications originated in any other commercial network."

2) "Transference of telecommunications originated in the network of one of the parties to any other commercial network selected by the final user, implicitly or explicitly."

3) Signaling.

4) Billing data.

5) User's data for publication "in the white pages of any telephone directory."

6) Public directory data for "publication in the white pages of any telephone directory."

7) Automatic caller identification.

8) "Number portability of the final user " to enable user selection of access providers (LGT, Title III, Chapter IV, Article 27).

Guatemala intended to avoid unbundling requirements that might stifle innovation or encourage new entrants to exploit inefficiencies in unbundled pricing and simply resell incumbent services. The LGT aims to push new entrants to invest in new infrastructure, and required all carriers to unbundle loops, ports, switching and signaling "at cost-based rates" (Spiller, Frontier of telecommunications deregulation). As an incentive, end-user rates were "fully deregulated" (Note: It is uncertain if the "informal price cap" that was applied to GUATEL rate rebalancing in 1996 has been maintained). Pricing for use of unbundled elements is to be negotiated by the user and seller. If the user and seller do not come to terms with forty days, SIT may be asked to arbitrate an end to the stalemate (LGT, Title IX, Article 90). Implementation of unbundling requirements was initially scheduled for one year after LGT passage, then postponed by the amendments to the LGT in November 1997.

Equal access means that consumers can select a carrier "by dialing the same number of digits irrespective… of carrier" (Spiller, Frontier of telecommunications deregulation). The LGT requires that "the selection code will be required even when the user wishes to use the same network operator that gives him the access to the services," but then states that "operators

with more than 10,000 access lines, must allow their users to access their telecommunications services without dialing the operator code" (LGT, Title III, Articles 48 and 49). Thus, larger carriers enjoy an advantage because of the less burdensome dialing requirements, reflecting Guatemala's intent to prevent fragmentation of the industry and stimulate new entrants to invest in infrastructure. As of February 1999, twenty carriers had been awarded Codigos de Operador, Operator Codes, by SIT. Refer to Appendix A for a list of carriers and codes.

Interconnection is the key to competition, of course. Without it, industry restructuring, unbundling and equal access may be fruitless exercises. The LGT defines interconnection as "the function that guarantees the network's interoperability [and] that allows telecommunications traffic to be carried between [different operators]" (LGT, Title III, Chapter III, Article 26). It stipulates the following interconnection requirements:

1) "[All] operators of commercial telecommunications networks must give nondiscriminatory access to essential resources to any operator who requests it…" in return for a fee.

2) "Access must be provided with the quality requested and in the points requested, if it is technically feasible."

3) "Any operator requesting essential resources has the right to nondiscriminatory conditions," relative to terms and conditions of agreements and contracts with other operators (LGT, Title III, Chapter IV, Article 28).

The only limitations to interconnection and the availability of "essential resources" concern technical feasibility and interconnections that can "damage equipment in use" (LGT, Title III, Chapter III, Article 26). Observers anticipated the "first batch of interconnection agreements" to be penned by October 1997 (Spiller, Frontier of telecommunications deregulation). In November 1997, legislators amended the LGT to require interconnection by January 1, 1999. In the meantime, nearly 20 access agreements were signed. However, three and a half months after the relaxed January deadline, TELGUA still had not interconnected any other carriers. TELGUA took advantage of a clause in the 1997 amendment that allowed it to postpone

interconnection until July 1, 1999, if "technical conditions" warranted the delay (USITA, Guatemala - Telecommunications market).

Competitors

In anticipation of a demonopolized telecom sector, more than 160 firms had signed onto SIT's new Telecommunications Registry before the first aborted TELGUA auction in 1997 (Jacobs, Telecommunications in Guatemala). In addition, more than 7,000 frequency applications had been submitted. Enthusiasm was surely dampened when the LGT was amended in November 1997, allowing TELGUA's monopoly to continue until July 1999 (USITA, Guatemala - Telecommunications Market). At least until then, as in the pre-privatization days of GUATEL, TELGUA would continue to operate "almost the entire existing public network," provide local, long distance and international service, as well as telex, telegraph, leased lines, and data network services (USITA, Latin American Telecommunications Newsletter (LATN)). Regardless, by February 1999, the Telecommunications Registry had grown to 219 firms (SIT, Operadores inscritos). Appendix B lists firms on the Registry and the services they provide.

Based upon analysis of competitive strategy conditions, the industry will soon be characterized by escalating rivalry and growing consumer power (Porter, Competitive strategy). These conditions vary from niche to niche (e.g., domestic long distance providers, billing specialists), but portend industry growth. For example, analysis of conditions for basic telephone service reveals the risk of substitute products (e.g., mail service) to be low. The market power of suppliers is mixed: domestic and regional suppliers are currently weak, while foreign (e.g., US and European) suppliers enjoy strength due to global demand for their expertise and advanced technology. Buyers lack strong market power, but are expected to build strength as competition among basic providers grows, giving consumers more choices. Despite high entry barriers, the market power of new entrants is constantly increasing. This is due to their entrepreneurial drive (compared to the traditionally lethargic TELGUA) and, for foreign entrants, their experience in market entry and ample resources. Most of all, the market will be dominated by intense rivalry as SIT gains regulatory experience and opens access to strong contenders for basic services. Similar scenarios may be expected in domestic and international long distance, public telephones, and other telecom areas.

Each firm's market strategy is as varied as their corporate missions and visions. Competitors on the Telecom Registry include firms intent upon providing equipment, systems or services in specific niches such as wireless messaging software, Internet service, or long distance calling. However, TELGUA and its owners at Luca and TELMEX are certainly more concerned with new entrants armed with vast capital and technical resources that will compete for full service.

These future rivals include (but may not be limited to) BellSouth, Telefonica de España and France Telecom. As one of only three Latin American markets that are both privatized and liberalized (Chile and Peru are the others), Guatemala offers a foothold for foreign carriers to expand when other markets liberalize in the future (Aguilar, Telecommunications services). To get around TELGUA's reluctance to interconnect, these new competitors are loosening TELGUA's hold on local wireline service by launching fixed wireless service (USITA, Telefonica purchases B- and D- band). TELGUA's full service competitors are pursuing the market with different strategies, but are striving to achieve the same goal: regional, not just national, domination.

To BellSouth, full service entails basic service complemented by wireless, Internet access, and domestic and international long distance. Its strategy is to "build off its wireless platform to provide fixed services, first reaching customers with high-volume traffic via fiber or local multi-point distribution services" (LMDS) (Hammer, BellSouth plans southern expansion). It intends to obtain the needed spectrum by bidding, partnering or acquisition. If not possible to obtain the spectrum it needs, BellSouth may install or lease fiber for the "last mile." BellSouth is employing an incremental, multi-year strategy that focuses on both Central and South America. With its Panamanian partner, Multi-Holding Corporation (MHC), BellSouth achieved its first milestone in October 1999 by winning the US$26 million bid for a national code division multiple access (CDMA) wireless license in Guatemala (TR International, BellSouth wins permit). Meanwhile, the firm is aggressively building its wireless services and brand name recognition in Nicaragua, Panama and neighboring El Salvador, as well as half a dozen South American nations (BellSouth, International operations - Latin America).

Telefonica de España is pursuing a strategy that is even more capital intensive, and aimed at a more rapid build-up in Guatemala. The Spanish firm has acquired no less than two Guatemalan companies, Auro, S.A., to obtain the latter's fixed-line telecom license (USITA, Spain's Telefonica wins), and Infovia, a local Internet provider (Telefonica, Telefonica companies). Shortly thereafter, when Telefonica won two personal communications services (PCS) auctions in March 1999, it announced that it would invest US$100 million in Guatemala during the next six months, on top of the US$42.8 million it bid for the PCS bands (USITA, Telefonica purchases B- and D- band). In February 2000, Telefonica opened a 24-hour, 500-person call center in Guatemala City, under the subsidiary Atento (Guatemala News Watch, Telefonica). In addition to other Central American operations, Telefonica is building a US$900 million-undersea cable (in a joint venture with Tyco International) that links Guatemala with the US and South America (PR Newswire, Telefonica will link the Americas). Telefonica's aggressive strategy grew the fixed lines of its Latin American network 13% to 21 million by the end of 1999 (compared to BellSouth's 10 million total in Latin America) (Telefonica, 1999 Annual Report).

France Telecom is also pursuing a hemispheric strategy in Central America. It dominates a consortium that holds a 51% stake in neighboring El Salvador's fixed network operator, CTE-Antel (PR Newswire, France Telecom goes to El Salvador). The firm not only has an alliance relationship with TELMEX (as evidenced by their joint bid for TELGUA in December 1997), but holds 7% equity in the Mexican carrier (Aguilar, Telecommunications services). France Telecom also has operations in the Caribbean, Brazil and Argentina, as well as Canada and the U.S.

Opportunities

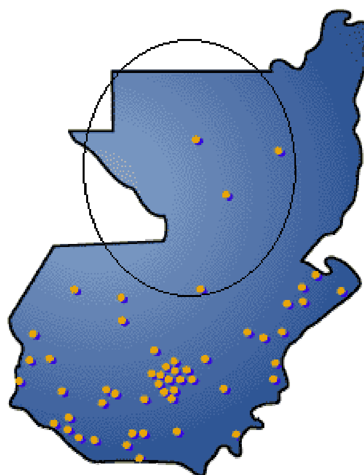
The Market

Market potential and the country's strategic geographic location are enticing firms to Guatemala. Guatemala's demographics and economic factors create an environment in which the telecom equipment market has been growing about 30% (or more) annually since 1996, with network systems (especially switching equipment) in continuing strong demand (USITA, Guatemala - Telecommunications market). Growing competition has lowered the cost of

telephone installation to US$265, which is bound to increase the installation backlog of an estimated 500,000 to 1,000,000 new lines (FUNDESA, Utilities). The economy is booming, and the country is ideally situated to attract firms with regional or hemispheric strategies.

The country's demographics bear out the market potential. Guatemala's population is currently about 11 million people, and is growing at 2.7% annually within an area roughly the size of Ohio. Population density is 268 people per square mile, however, density among the 4.5 million urban dwellers is much higher, while the Department of Peten (occupying the northeastern quarter of the country) is very sparsely populated.

Figure 1. Guatemalan Population Concentration



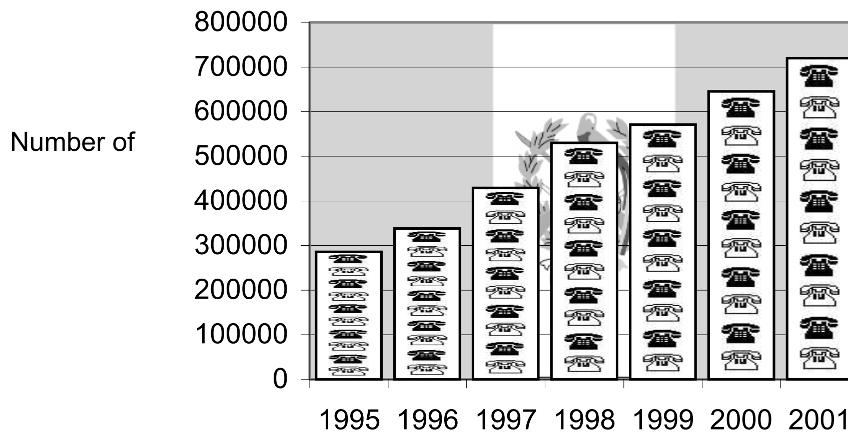
Guatemala's population is concentrated in areas around the yellow dots. Peten is roughly enclosed in the oval. Note that Belize is included on this TELGUA map. Guatemala has claimed Belize as part of its sovereign territory since the 19th century.

Guatemala's standing as the largest economy in Central America is attractive to foreign telecom firms (PR Newswire, Bellsouth wins license). With a gross domestic product (GDP) of US$19 billion, the nation's economy represents one-third of the overall GDP of all six Central American nations. Democratization, the peace process, low labor costs, and other factors have created an environment where annual growth in real GDP has exceeded 4% since 1988, and is projected to continue at 4.6% through 2002 (World Bank, Guatemala at a glance). Considering the under-utilization of the country's human and natural resources, the outlook for Guatemala's economic future is bright. New and growing industries, as well as an increasingly prosperous

workforce, need more telecom services as the growing economy places greater premiums on efficiency.

"Profit opportunities are greatest where teledensity lags," and teledensity has certainly lagged economic growth in Guatemala (Hershel Shosteck Associates, Substituting mobile). Teledensity was just 2.07 in 1990 when economic recovery was well underway, however, service expansion was retarded until GUATEL's restructuring in 1997. Although teledensity soared to 4.1 in 1998, it seems destined to grow another 70% based upon a benchmark of 1.89 increase in teledensity for every US$1,000 increase in per capita GDP. In comparison, the average Latin American teledensity is approximately 12, while US teledensity is 64 (Aguilar, Telecommunications services).

Figure 2. Guatemala: Increasing Telephone Main Lines



Source data: FUNDESA research (1999), USITA (1999), and TELMEX Boletin Informativo (2000)

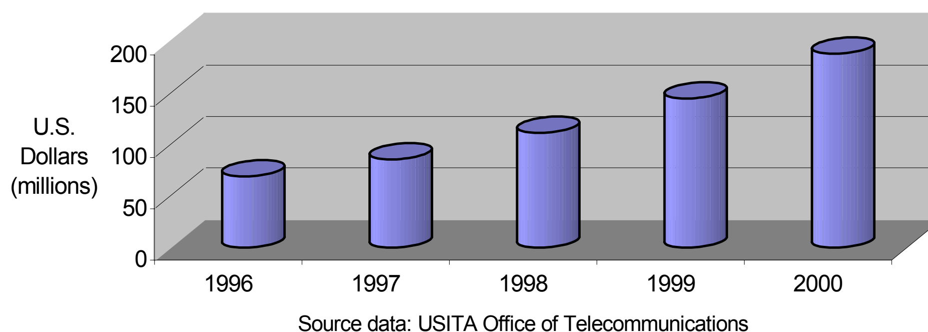
The market's relatively small size (compared to Mexico or Brazil), taken alone, may not seem to offer rewards that can entice international telecom firms. However, Guatemala's geographic location on the Central American isthmus makes it a vital "link in the chain" between the massive North American markets and the rapidly growing South American markets (Atlanta Journal, BellSouth buys license). International telecoms competing for domination of the Americas need Guatemala. For example, BellSouth is endeavoring to patch together

seamless cellular service throughout the Americas with its international roaming strategy (Bellsouth, BellSouth mobility says "hola!").

Equipment Opportunities

Guatemala's telecom equipment market has been growing at 30% or more since 1996 (USITA, Guatemala - Telecommunications market). Presently, local manufacturing has limited assembly capabilities, and nearly 100% of the telecom industry's needs are imported. Network systems (especially switching equipment) and customer premises equipment are in continuing strong demand (USITA, Guatemala - Telecommunications market). An estimated 30% of new main line installations will be wireless local loop (WLL) (Peters, Going places). On the other hand, paging services, "long a low-cost staple of wireless growth," is declining in demand.

Figure 3. Guatemala's Telecom Equipment Market



FONDETEL and Rural Telephony Opportunities

Prior to the LGT, basic telephone service was cross-subsidized by high long distance rates. At the time of privatization, the subsidy was costing TELGUA US$3.3 million per month. Instead of continuing to subsidize existing service after privatization, the Guatemalan government decided to subsidize new service to underserved segments of the population via FONDETEL. FONDETEL, established by the LGT, manifests a Guatemalan goal to achieve limited universal service. The fund is directed to "promote the development of telephone services in rural or low-income urban areas" to address the unequal distribution of basic services (LGT, Title V, Article 71). Eighty per cent of the nation's telephones are in Guatemala City, while 60% of the population lives in rural areas (USITA, Guatemala - Telecommunications

Market). The LGT specifies that the fund will receive 70% of the proceeds of spectrum auctions, but that no more than 30 million Quetzales (approximately US$4 million) be spent by FONDETEL in a single year, with any remainder to be invested for future use.

FONDETEL presents opportunities for services and equipment to bring telephony to rural and low income citizens. For instance, opportunities should arise in the Department of Peten, the sparsely populated northeast region that borders undeveloped regions of Belize and Mexico. The low population density and long distances over poor roads through rough terrain make it unlikely that carriers might extend (or improve existing) wireline services into Peten. Like remote mountain regions of Guatemala, Peten is a good candidate for satellite telephony using very small aperture terminal (VSAT) technology. When installed in a hub-based star network, the cost of satellite rural telephone installation may run as low as US$2,000 to US$4,000 per site (Foley, A rural idea). A successful model employed by Global Village Telecom (GVT) in Chile relies upon a partial government subsidy for installation, then allows GVT to split revenue from the installation with a carrier partner.

Obstacles

Technical Obstacles

Firms that must install new facilities face challenging geographical obstacles that will tax technical innovation. The population is concentrated among volcanic mountains that rise more than 12,000 feet, while lower terrain varies from rain forest to a landscape choked with tropical vegetation (Nyrop, Guatemala: A country study). Facility design must take into account constant high humidity, powerful earthquakes and hundreds of rivers swollen seasonably by Pacific monsoons. Such difficult conditions predispose many areas to wireless telecom (Schwartz, Wireless communications in developing countries).

Despite TELGUA's crash modernization program just prior to privatization, the firm's deputy manager in 1998 estimated that Luca, S.A. would have to invest a minimum of an additional US$300 million to modernize TELGUA (Reuters, Guatemalans hope). As an example, he cited the monopoly's "patchwork of technology" that used seven different types of switches. In addition to irrational hardware and network configurations, TELGUA's legacy of

inefficiency promises a cornucopia of neglected technical issues for engineers to struggle with in the near future.

Number portability may seem to be more of a regulatory issue than a technical obstacle. However, as of June 1999, TELGUA claimed to be unable to master the technical intricacies of number portability, despite the threat of a US$100,000 fine from SIT (Siglo XXI, TELGUA entre la espada y la pared).

Financial Obstacles

As in all foreign markets, foreign exchange (forex) risk is a potential obstacle to all firms that accept payment in Guatemalan quetzales and intend to convert them into another currency. A serious forex problem seems to underlie the controversial March 2000 acquisition of 80% of Luca by TELMEX (Telefonos de Mexico, Boletin Informativo). Since TELGUA's October 1998 sale, the quetzal has depreciated more than 13% against the dollar (Garcia, Enemigo publico). Unfortunately for Luca, its payments to purchase TELGUA are denominated in dollars, while most of its revenue has been in ever-falling quetzales. It appears that Luca was in danger of missing its second payment of US$150 million that is due March 31 (Velásquez, Telefonía: Preocupa el pago). A representative of the Guatemalan president criticized TELGUA's acquisition by TELMEX as "a direct aggression against the interests of the people of Guatemala" (Valladares, et al., Telefonía: Critican venta de acciones).

Another dimension of forex risk entails calculation of costs for telecoms to interconnect to network elements of another telecom firm. The LGT stipulates that cost of capital be based on the U.S. prime rate when calculating the Long Run Incremental Average Cost (LRI-AC) of a network element (LGT, Chapter V, Article 40). Guatemala's inflation (somewhere between 6.4% and 7.5% in 1998) typically runs higher than U.S. inflation, and is projected to continue at 5% (Central Intelligence Agency (CIA), Factbook, and World Bank, Country brief).

Many telecoms have been unable to build market share as fast as their planners envisioned, causing unexpected cash flow, credit and payment problems. For example, in Mexico, several winners of wireless spectrum auctions have had "difficulty living up to their commitments to make payments on time and in full" (Peters, Going places).

Human Resources and Labor Obstacles

Guatemalan labor is relatively inexpensive, although recent proposed legislation might increase non-agricultural worker's minimum daily wage to Q30.51 (US$3.96) (Godoy, Salarios). A potential obstacle may be that the experienced pool of telecom workers among Guatemala's labor force were all spawned by the GUATEL/TELGUA culture. Their legacy as employees of an inefficient, overstaffed bureaucratic monopoly suggests that training and indoctrination are necessary to instill entrepreneurial skills, initiative and loyalty.

After decades of oppression (including frequent human rights abuses), the labor movement (particularly the two telecom labor unions, Steguatel and 22 de Febrero) is often aggressive and sometimes violent. For example, when TELGUA announced the first layoff of 2,500 workers in December 1998, one union leader promised to "turn TELGUA into a living hell" (Siglo XXI, Sindicalistas). The threats helped the unions negotiate a generous severance package "worth three and a half times that obliged by law." At one point, TELGUA gave all workers the day off rather than risk service disruptions by disgruntled employees (CERIGUA, Privatized phone company).

Among other things, Guatemalan labor laws mandate the payment of two annual bonuses equal to one month's salary, and punish firms that layoff workers by requiring severance pay based upon salary and length of service. Guatemala also restricts the employment of foreign nationals in a variety of different ways (FUNDESA, Business guidebook).

Additionally, firms may experience difficulty finding expatriates willing to endure extended stays in Guatemala, or may find insurance and security measures to be very costly. Violent crime has ballooned in the wake of the Peace Accords due to the large number of arms and unemployed former combatants (USITA, IMI - 1999 investment climate). Accidents on and off the job are common and have much higher fatality rates than the U.S. due to poor healthcare facilities and almost non-existent emergency response. The accidental death of a senior vice president of GTE in Guatemala in 1997 reiterates the higher risk to personnel (TRI, Bruce E. Haddad). Other cultural issues that present management problems for foreign firms are identified in Appendix C.

Marketing Obstacles

While Guatemala's demographics appear enticing on the surface, 75% of the population, about 8¼ million people, live below the national poverty level (estimated to be approximately US$1,260 per year), and most of these people live in rural areas. Presumably, these are the intended recipients of FUNDETEL's benefits. Per capita gross national product (GNP) was just US$1,640 in 1998 (World Bank, Guatemala at a glance). In addition, 33% of the population (3½ million people) do not have access to safe drinking water. Telecom services will not be the top development priority for this segment, although telecom can certainly improve the quality of life by helping small farmers and artisans get accurate and timely market information (Foley, A rural idea).

In spite of the limited liberalization in Latin American markets, telecom marketers say that the region is already highly competitive (Aguilar, Telecommunications services). "Margins are slimming fast," insists one telecom marketer in Latin America, and as a result, "Carriers are fighting for volumes of minutes."

Internet growth may continue to be stifled by usage-based (i.e., per minute) charges for telephone service. However, it seems that a popular marketing strategy for higher income consumers and businesses who use the Internet frequently will be to offer flat rates versus per minute charges.

Legal and Regulatory Obstacles

The greatest obstacles of all concern the rule of law in an ancient land where democracy is a new concept and legal foundations are not based on common law. On Transparency International's Corruption Perceptions Index, Guatemala ranks below Mexico, China, Egypt and Romania, but above Columbia, Indonesia, Nigeria and Russia. Telecom problems such as “slamming [are] more prevalent in low transparency environments” (Aguilar, Telecommunications services). In Guatemala in particular, political interference in telecom business decisions is not unusual. As the November 1997 amendments to the LGT demonstrated, the Congress is capable of legislating ill-conceived laws that run counter to its professed goal of a competitive telecom environment.

Although "regulatory independence and even-handedness are often lacking" in Central America, SIT has already made bold decisions, imposed fines, and shown leadership during its short lifetime (Loveridge, Telecommunications regulatory affairs). Nevertheless, SIT struggles constantly with insufficient personnel, high turnover, low wages and a lack of technical competence, on top of pressure from the public and private sectors. Worse yet, SIT has come to realize that "Guatemalan law lacks sufficient authority to force [firms'] compliance" with the LGT (USITA, Guatemala: Problems mount).

Guatemala's legal framework does not facilitate transparent free market processes. Its foreign investment laws are "complex and confusing" (USITA, Telecommunications country profile). For instance, Guatemala's local business community has complained that the Law of Contracts creates "an environment conducive to corruption" by assigning oversight of auctions to the same institution that conducts them (Ibarguen, Public bidding process). The Concessions Board that receives and qualifies offers, then awards concessions, is supervised by the same Board of Directors that appointed it. The law even proscribes the use of impartial auditing firms. Three months after the 1995 Band-A cellular auction was aborted, Gerencia, Guatemala's foremost business magazine, declared, "A system which provides the right incentives for transparent processes, that minimizes discretionality [sic] and subjectivity, needs to be established" (Ibarguen, Public bidding process).

Getting TELGUA to honor its interconnection agreements is the most pressing legal and regulatory obstacle for competitors. In July 1999, SIT slapped TELGUA with a US$100,000 fine for failure to fulfill a single one of its 14 interconnection agreements. Subsequently, TELGUA has inexplicably cut service to competitors after interconnecting (Godoy, TELGUA: De nuevo a los tribunales). TELGUA has also been fined for interfering with satellite service (Ixcot, TELGUA: Por interferencia). Whether TELGUA has actually paid any of the fines is not known.

The March 2000 announcement that TELGUA now belongs to TELMEX means trouble for telecom operators in Guatemala. TELMEX has a reputation for anticompetitive practices (FCC, File No. FCN-NEW-20000114-00001).

Conclusion

Guatemala entices foreign telecom firms with several quantitative indicators of profit opportunities: lagging teledensity, a booming economy, and the LGT. Likewise, quantitative negative indicators present some daunting numbers: 75% of the population in poverty, 13% depreciation of the quetzal against the dollar since 1997, and US$300 million to bring the public network up to minimum modern standards. However, the worst obstacles cannot be quantified: Can SIT make TELGUA obey? Will TELMEX encourage TELGUA to honor interconnection agreements? Will politicians, legislators, regulators and the labor unions be facilitators or obstructors of a healthy, competitive telecom market?

Telecommunication firms and consumers in Guatemala are fighting together for a competitive market. The paging, wireless and cable segments have grown and prospered in spite of GUATEL and TELGUA. As an example of the competitors' resolve, some firms have been providing international satellite service via "informal line-side interconnection" (i.e., connecting like regular telephone subscribers) for three years (Spiller, The frontier of telecommunications). SIT's determination to cultivate a competitive telecom market has been admirable, as well.

Based upon the tenacity of Guatemala's telecom consumers, competitors and regulators, opportunities outweigh obstacles.

End

Abbreviations and Acronyms

Abbreviation/Acronym	Meaning
CCG	Country Commercial Guide
CDMA	code division multiple access
CIA	Central Intelligence Agency
COMCEL	Comunicaciones Celulares, S.A.
CRELOSA	Corporación Radio Electrónica, S.A.
FONDETEL	Fondo para el Desarollo de la Telefonia
forex	foreign exchange
FUNDESA	Guatemalan Development Foundation
FY	fiscal year
GDP	gross domestic product
GNIB	Guatemala News and Information Bureau
GNP	gross national product
GUATEL	Empresa Guatemalteca de Telecomunicaciones
GVT	Global Village Telecom
IBS	international business services
IMI	International Market Insight
km	kilometer
LGT	Ley General de Telecomunicaciones
LMDS	local multi-point distribution services
LRI-AC	Long Run Incremental Average Cost
MCTOP	Ministerio de Comunicaciones, Transporte y Obras Publicas
MHC	Multi-Holding Corporation
PCS	personal communications services
Q	Quetzal[es]
S.A.	Sociedad Anónima
SIT	Superintendencia de Comunicaciones
TELGUA	Telecomunicaciones de Guatemala, S.A.
TELMEX	Telefonos de Mexico, S.A.
URNG	Unidad Revolucionaria Nacional Guatemalteca
US$	United States Dollar[s]
USITA	United States International Trade Administration
VSAT	very small aperture terminal
WLL	wireless local loop

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