# COMMUNITY-BASED CONTENT: THE INFOCENTROS TELECENTER MODEL

A World Resources Institute
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# EXECUTIVE SUMMARY

Telephones are scarce in El Salvador. Individual computer ownership is even more scarce—fewer than 2 PCs per 100 inhabitants—and dial-up Internet costs prohibitive. As a result, less than 1% of the population now uses the Internet. Changing this situation is the mission of the Infocentros Association (IA), a newly-created non-profit organized and run like a business.[1] Its goal is to connect 2 million middle and lower income Salvadorians—one third of the population—to the Internet within 2 years through a chain of 100 telecenters. But connectivity is just the infrastructure: the Infocentros strategy is to build an "infostructure" of local content as well, in order to transform El Salvador into an information society.

**BUSINESS MODEL**

Although formally a non-profit, Infocentros is headed by a CEO and will build, operate, and franchise telecenters throughout El Salvador. The IA business strategy is built around franchising: of the 100 telecenters planned by the end of 2002, only 10 will be operated by IA itself as regional "mother" centers.[2] Franchises will cost about $80,000 and are expected to be profitable within 27 months. However, IA will launch each center and get it operating well before handing it over to the franchise partner; franchise revenues will be re-invested in additional centers and new services. Telecenters will typically have 20 computers and include open access and training areas.

Infocentros will also provide or catalyze the creation of local content, computer training services, and e-commerce infrastructure, in order to make Internet access an effective development tool. It is this content, such as courseware or business applications built around computers and Internet access, that is central to the IA business model. Relevant local content generates usage and additional revenue sources for telecenters, as well as significant social benefits for the country. Courseware generated in one telecenter, such as a currently popular course on how to rebuild earthquake-damaged houses, can be offered in all others as well, its value increasing as the Infocentros network expands. In addition, Infocentros is developing strategic alliances with groups that can benefit from information technology, such as hospitals and local governments.

**HUMAN CAPACITY**

Because of the focus on local content and training, human capacity development is a major outcome of the Infocentros approach. At the telecenter level, Infocentros trains its own rapidly-growing staff and offers one-to-one assistance to customers unfamiliar with computers or the Internet. Through alliances with government and business, IA also seeks to teach a large segment of the population how to use information technology to increase skills, create jobs and raise incomes, and overcome social problems. For example, Infocentros is negotiating an 8-hour Internet training course for all Salvadorian high school students, in partnership with the Education Ministry. IA is also developing financial applications for small and micro businesses and still other applications for farmers, doctors, and government officials. IA plans to offer free Web page hosting for the 470,000 small businesses that, in El Salvador, constitute 99% of private enterprises.

**INFRASTRUCTURE**

A significant obstacle to Internet use in El Salvador is the high cost of bandwidth.[3] Although Infocentros has been able to negotiate discounted rates, connections remain expensive. If Infocentros can use its market power to lower the cost of Internet access, it could gain a strong competitive advantage over private cybercafés.

## POLICY

Infocentros has benefited from the government's 10-year, interest-free loan and from alliances with specific government ministries. In addition, IA has benefited from a number of policy initiatives aimed at liberalizing the country's economy. El Salvador's deregulation of the telecommunications sector and resulting competition, for example, have helped to reduce Internet access costs somewhat. Banking deregulation, dollarization, and privatization have also strengthened the investment capacity of entrepreneurs, which is likely to help the financing of IA franchises. Still further legislative and regulatory action will be required if the Infocentros plan to make its telecenters function as e-commerce ordering and payment sites is to succeed.

Uncertainty about the legality of Internet telephony has kept Infocentros from offering this potentially valuable service. IA's telecenters do not prohibit the use of applications like Net2Phone, and during the January earthquake offered Salvadorians free Internet calls to notify relatives in the US, with the blessing of the telecom companies. But Infocentros has chosen not to publicize the technology or to challenge the telecom companies who provide its Internet connections by seeking legal authority to offer the service. In doing so, it is foregoing a potentially lucrative market, since many Salvadorians live overseas.

## ENTERPRISE

The Infocentros business model, with its rapid deployment of franchises to reach scale, enables the enterprise to negotiate favorable contracts for equipment and services from a wide range of vendors. IA also has been very entrepreneurial, negotiating deals with private companies to offer discounted Internet access to groups of employees or clients and agreements with several government agencies to create e-government portals. To increase telecenter usage during evenings and weekends, partnerships are being developed with schools and small businesses that wish to offer computer and Internet training to their students, faculty, and staff. To extend Internet access throughout El Salvador and reduce the need for physical plant, IA is planning to create virtual telecenters located within existing institutions, such as medical centers and central courthouses. And to help perpetuate its entrepreneurial spirit, IA maintains a 3-person new business development group charged with assessing new opportunities quickly. Nonetheless, long term profitability is not assured. As many Internet startups have found, building market share and creating content can be costly. Currently, for example, 90% of IA telecenter users are paying discounted student rates.

Infocentros assists its franchisees by supplying management support, training, technical assistance, network marketing, and other services to help ensure that telecenters remain profitable. But it also uses an enterprise-wide Intranet to share new business ideas across the telecenter network and to compare the monthly performance of each telecenter, providing strong incentives for telecenter managers; managers who do not perform are replaced.

## CONTENT

Community-based content is what sets Infocentros apart. One of its founders believes this approach gives IA a competitive advantage over U.S.-style Internet access providers in Latin America. In any event, the enterprise takes content creation seriously. It is building a new digital production center to create audiovisual content for education and professional training courseware that can be broadcast over the Internet. It is also developing a B2B e-commerce portal for small and micro-entrepreneurs, and a suite of business applications designed to help these business owners manage their finances, investments, and billing—services available only at telecenters.

## KEY LESSONS

Infocentros is an example of a development-centered ICT strategy based in a unique partnership between government and civil society.

Infocentros is a start-up enterprise—even though a non-profit association—but it appears to be meeting or exceeding its targets. Its business model gains efficiencies by aggregating users in telecenters, providing shared access to computers and bandwidth, generating additional revenues from local content, and aggressive franchising. As a result, it seems capable of reaching scale and providing widespread Internet access and the related social benefits that its creators intend. Critical to its business and social success will be the generation of valuable content and training of customers who understand how to use information technology for their own education, to obtain government services, to grow their businesses, or to communicate more effectively.

# COMMUNITY-BASED CONTENT: THE INFOCENTROS TELECENTER MODEL

## FORMATION OF INFOCENTROS ASSOCIATION

Infocentros is the product of a 1998 joint El Salvador-World Bank national consultation on the information society called *Conectandonos Al Futuro* (Connecting to the Future). [4] The consultation engaged experts and citizens from all segments of Salvadorian society in working groups, teleconferences, and face-to-face meetings to identify methods to develop El Salvador's rudimentary Internet infrastructure.

The goal was to improve Internet access in a country suffering from a gaping digital divide. As of 1999, only 40,000 Salvadorians, some 0.7% of the population, were using the Internet.[5] This extremely low penetration rate was to a large extent the result of access costs that, at $30 to $40 per month, equaled 20% to 45% of El Salvador's average minimum monthly wage.[6] Moreover, because the country's fixed telephone infrastructure is so limited (only 20% of urban residents and 2% of rural residents own phones), home dial-up Internet access is unavailable to most citizens at any price.[7]

**Table 1. Telecommunications Indicators for El Salvador, Selected Central American Countries, and the US, 1999**

| Country/ Region | Total Population (millions) | GDP Per Capita (US$) | Fixed Phone Lines | | Mobile Phones | | Internet | |
|---|---|---|---|---|---|---|---|---|
| | | | Total (1,000s) | Per 100 pop | Total (1,000s) | Per 100 pop | Users (1,000s) | % Pop |
| Costa Rica | 3.93 | 2,763 | 802.6 | 20.41 | 143 | 3.64 | 150 | 3.9 |
| **El Salvador** | **6.15** | **1,984** | **468.1** | **7.61** | **382.6** | **6** | **40** | **0.7** |
| Guatemala | 11.09 | 1,754 | 605.3 | 5.46 | 351.2 | 3.17 | 65 | 0.6 |
| Honduras | 6.32 | 859 | 279.2 | 4 | 78.6 | 1.24 | 20 | 0.3 |
| Nicaragua | 4.94 | 452 | 140 | 2.98 | 69 | 1.4 | 20 | 0.4 |
| Panama | 2.81 | 3,305 | 462.5 | 16 | 242 | 8.61 | 45 | 1.6 |
| The Americas | 818.11 | 14,228 | | 32.74 | 128,084.20 | 15.69 | 131,240 | 16.4 |

Source: "Americas Telecommunication Indicators 2000," ITU (Internet host data. Internet Software Consortium, RIPE). Compiled by Francisco Proenza study, http://www.iadb.org/regions/itdev/telecentros/index.htm.

The national consultation produced a clear set of opportunities and obstacles to Internet development, together with a series of innovative "best practice" projects to stimulate Internet development.

While most proposals were modest and conventional, such as installing demonstration telecenters in rural areas, the consultation chose to adopt a much bolder strategy of establishing a nationwide franchise of 100 for-profit telecenters that could propel El Salvador into the digital economy. More importantly, however, the final document (released mid-1999) not only stressed the need to build Internet access facilities but also called for the "*construction of an 'infostructure' of national content and applications*" that would stimulate demand for Internet services and create a culture in which communication and information were widely available.[8]

To turn the plan into reality, seven participants in the consultation formed a private, non-profit organization called Asociación Infocentros (Infocentros Association) with the ambitious goal of building an information society in El Salvador. [9] According to Infocentros CEO Juan José Sánchez, the participants chose a non-governmental organizational structure to avoid the political manipulation or interference that might come about in a government-led endeavor. And, despite confidence in the business model, the founders felt that a for-profit

firm was premature given the financial risk of a nationwide Internet franchise in a developing country like El Salvador.

As a non-profit, Infocentros was able to negotiate generous financing from the Salvadorian government. The recent privatization of the state telecommunications company (ANTEL) and the sale of licenses to telecom operators gave El Salvador a financial windfall that it was encouraged to re-invest in information technology. With the support of the country's Finance Minister, the government granted Infocentros a 10-year, $10 million interest-free loan with a 4-year grace period. In exchange for these terms, Infocentros agreed to use the funds to create a network of 100 telecenters within a two-year period, along with relevant content and applications identified during the *Conectandonos* consultation as critical to the country's Internet development.

To accomplish this formidable task, Infocentros turned for guidance to the Peruvian Scientific Network (RCP)[10] and its founder, José Soriano. RCP is a non-profit organization that pioneered the provision of Internet service in Peru through an extensive network of public Internet access centers, and also developed a proposal for a pan-Latin *cabina* franchise network[11] that Infocentros believed was the best model for rapidly launching 100 telecenters.

### BUSINESS STRUCTURE

Infocentros is governed by a board of directors composed of seven members who serve for a term of three years. They come from different backgrounds, from business and finance to government, academia and development organizations.[12] Infocentros also has an expert advisory committee composed of three specialists in marketing, finance and communication. Each new potential project, whether proposed by partners, members, Infocentros staff or others, goes through this committee for an evaluation of its feasibility, cost, impact, and priority.

The executive director supervises seven departments responsible for franchises, commercial relations, operations and content applications, education, "cultural transformation," supervision, and finance and administration. Together they are responsible for managing the franchise network, developing a platform of relevant content and applications, and promoting alliances and sales of the network's products and services.[13] During Infocentros' first year, procedures and regulations were spelled out in a series of manuals designed to guide the operation of the entire organization and its franchises.

Infocentros has designed a process to help the first group of telecenters franchises become financially viable as quickly as possible. Each franchise will be established and run initially under Infocentros' direct management. During the startup phase, Infocentros will establish local partnerships and define the Internet and computer content and applications that will draw customers to the franchise. Only once the facility reaches profitability will it be sold to a franchisee. As a part of the purchase, each Infocentros franchisee is provided with a business plan that spells out the process for operating profitably, including specifics like the range of salaries the staff should be paid.

Infocentros also provides essential support to ensure that franchises remain profitable throughout their startup phase. In the event that profits decrease, Infocentros will provide an assessment and consulting help until the franchise reaches its expected profit levels. If, after this initial support, the business does not recover, Infocentros will directly intervene and help to manage the business. If this intervention does not work, a buy-back option will be considered. Furthermore, throughout the life of the franchise, Infocentros plans to offer a wide range of support services, from market studies to operating manuals, training, direct technical and managerial support, network marketing, and partnerships.

Infocentros hopes that its network of Internet centers will reach 2 million middle- and low-income Salvadorians, or 30% of the country's population. To reach nearly a third of the country, Infocentros plans to minimize Internet user costs, provide access where it is not currently available, transform the cultural perception of the Internet as inaccessible and complex, and stimulate demand for Internet services by creating content and applications that are relevant to the needs of Salvadorians.

Unlike many other startup companies in the Internet sector, Infocentros' business plan does not involve an "exit strategy." The founders created Infocentros not for short-term financial gain, but to build a robust business, with strict financial controls and strong partnerships, that will be able to remain a leading Internet provider in El Salvador over the long run.

## KEY FACTORS FOR SUCCESS

### *Human Capacity Development for Cultural Transformation*

One of the central objectives of Infocentros is to propel El Salvador into the digital economy by empowering Salvadorians of all walks of life to use information technology. This is a mission that extends far beyond providing computers and T1 lines; it requires developing appropriate and strategic uses of information technology that are meaningful to individuals and that help the country to achieve economic and social development. Putting a computer in everyone's reach is complex enough; Infocentros is attempting a cultural transformation that aims to "make ICTs and Infocentros disappear," i.e., to make them transparent and as integrated into people's lives as the telephone is in the lives of citizens of more developed countries. Infocentros officials believe that ubiquitous information technology will facilitate individual empowerment and social transformation, and that developing human capacity is core to achieving this goal.

To accomplish this, Infocentros is developing numerous alliances with Salvadorian businesses, NGOs, and government agencies. For example, Infocentros has entered into an agreement with Costa Rica-based Aura.com to provide online Microsoft Office software training, and is negotiating with Oracle, Cisco, and Adobe for similar training products. In the future, Infocentros plans to offer its own online training modules, but for now finds working with existing products more efficient. Infocentros is also developing financial applications for small and micro businesses and applications for farmers, doctors, and government officials. It plans to offer free Web page hosting for the 470,000 small businesses that, in El Salvador, constitute 99% of private enterprises.

Infocentros also plans a variety of activities to educate Salvadorians not only in how to use the Internet, but in why information technology is essential to their economic future. One step involves designing specific information technology products for target groups most likely to benefit from Internet access, such as academics, professionals, technicians, businesses, government officials, and NGOs. Infocentros has established content development agreements with the Salvadorian government to implement a portal for government services, with the Ministry of Agriculture for a portal on agricultural services, with the Netherland cooperation agency HIVOS for culture and art programming, with Banco Multisectorial de Inversiones for financial services, and with a Salvadorian business school for a cyber-school project.

At the telecenter level, Infocentros trains its own rapidly-growing staff and offers one-to-one assistance to customers unfamiliar with computers or the Internet. With customers who are generally novices, and who do not have computers at home on which to learn, top-notch support is essential to developing confident users who are not intimidated by the centers.

Infocentros also assists its franchisees by supplying initial management support, training, technical assistance, network marketing, and other services to help ensure that telecenters remain profitable. It also uses an enterprise-

wide Intranet to share new business ideas across the telecenter network and to compare the monthly performance of each telecenter, providing strong incentives for telecenter managers to improve.

In addition, Infocentros is approaching a number of other institutions and groups to jointly develop applications. So far, these include wide-ranging entities from small business groups to an association of people with physical disabilities, to organic coffee producers, and Coexport, an export promotion institute. Discussions are underway to create a regional network academic portal called "Net Universitaria." These partnerships enable Infocentros to attract groups of users to its facilities during non-peak periods.

At this time, Infocentros has chosen not to approach multinational Latin American content providers such as Universo Online, Terra, AOL Latin America or PSINet for partnerships. Instead, the organization intends to build a strong base of local and national content to firmly establish the Infocentros identity within El Salvador.

### Developing Nationwide IT Infrastructure

#### Providing Low-Cost Access

El Salvador's 16 commercial Internet service providers (ISPs) operate primarily in and around the capital and offer services that are prohibitively expensive for much of the population. The largest ISP, the former state-owned telecommunications company Telecom, offers a $50/month unlimited connection, including telephone connection costs. Many of the other ISPs offer free Internet accounts, albeit with per-minute telephone charges that make dialing into the ISP expensive.[14] Cable access is growing, but the infrastructure remains limited to high-income or upper-middle class neighborhoods in the capital city of San Salvador.

In response to the high costs of individual home Internet access, over the past two years many entrepreneurs have opened up cybercafés with computers linked to the Internet via dial-up connections. However, these small businesses often operate on razor-thin profit margins, and as a result, a number have recently closed. Telecom and Telefónica have installed stand-alone dial-up access points in restaurants, cafes, and stores, but with per-minute charges for the users and telephone booth-like ambiance, these facilities are used mainly for quick tasks, like checking e-mail, rather than more involved web surfing.

In sharp contrast to these options for Internet access, the Infocentros facilities will have national reach and much higher quality services. In particular, Infocentros will offer faster connectivity compared to cybercafés that use dial-up connections with only 64K bandwidth. The scale of the franchise will enable Infocentros to keep prices of fast connections quite low. For example, a 128K line costs around $600 per month throughout El Salvador, yet Infocentros has been able to negotiate a price of $400 per month for a 128K connection, with 256K redundant connectivity for approximately $500 a month. By obtaining lower bulk prices for supplies, Infocentros will be able to pass the savings to consumers in the form of a variety of discounts, from student prices (90% of current customers have a student discount, so the average revenue per user is only $1.26 per hour) to off-peak reductions. Infocentros also has other, content-based revenue sources so that it does not depend solely on access fees for its revenue.

According to several top executives and board members, Infocentros does not face serious competition at this time. The most likely competitors, cybercafés and telecommunication Internet access points, do not offer equivalent quality connections or user support. Moreover, with relatively modest market demand in the lower-middle and middle income markets in El Salvador, the barriers to entry for a nationwide competitor would be significant. In the future, competitors are likely to enter the market, especially if Infocentros is successful in driving demand for Internet connectivity. Indeed, future market entrants may be free riders, enjoying the results of Infocentros' investment in market demand and cultural transformation.

*Building a Network of Physical and Virtual Facilities*

The Infocentros Association has designed three distinct types of facilities to appeal to different markets. Within two years, 100 regular telecenters will be established, 10 owned by Infocentros and 90 owned and managed by franchisees. The ten businesses that function as nodes (or "mother" Infocentros) play a unique and important role in the franchise. They provide assistance and services to the franchised telecenters in the form of training, technical support and equipment maintenance. The "mother" facilities also create and catalyze business opportunities locally, serve as intermediaries between the franchise telecenters and their local ISPs, promote and help with local and regional content production, and serve as liaisons with all local professional, government, and development organizations. Infocentros plans to disperse the ten "mother" facilities throughout the country, locating them in medium-sized towns that serve as regional poles for communications, that have active citizen or civic networks, with significant commerce, a decent ICT infrastructure, and dedicated lines from an ISP. Typically, they will be stand-alone facilities with 30 computers and include open access areas and training or on-line conferencing areas.

Each of the 90 franchise telecenters is expected to provide high-quality information services and generate sufficient revenues to be profitable. In addition, however, the franchises are obligated to promote local content production, offer locally needed information services, and generally contribute to the network's sustainability.

In addition to the 100 physical facilities, institutional and "virtual" telecenters will be established. These will consist of networked computers hosted within the facilities of partner associations under special operating agreements. In the central courthouse, for example, Infocentros plans to operate a center to provide online legal assistance to the public, and in healthcare centers, computers operated by Infocentros would provide online medical consultations.

A third type of facility, the "Associated Telecenters," will consist of cybercafés and private Internet access centers that will be incorporated into the franchise network. The benefit to these ventures will be lower connectivity costs, technical and managerial support, and value-added services, content and applications.

Apart from the stationary centers, three mobile telecenters are being considered, costs and logistics permitting. These might travel to remote rural areas and locate at large public gatherings to provide on-site access.

### *Policy*

Economic deregulation, the opening of the telecommunications market to competition, and privatization of the incumbent telecommunications provider have all been tremendously helpful to the Infocentros project, as they resulted in lower prices for telecommunications services and wider connectivity across El Salvador. But the most important policy was the Salvadorian government's direct support in the form of its 10-year, interest-free loan. Given the scarcity of capital in El Salvador, securing private venture capital was unlikely.

Another important policy decision was the willingness of specific government ministries to create alliances with Infocentros that help to drive customers to the facilities. Without the explicit support of the education ministry, for example, Infocentros would not have been able to populate its first five pilot telecenters with student customers. Salvadorian government programs will also help to build a market of Internet users. Initiatives such as computer training centers, special social programs and agricultural information systems will increase the capacity of potential Internet users and spur demand for Internet access.

A variety of financial policy innovations will help Infocentros' business. Banking sector deregulation and privatization have strengthened the investment capacity of entrepreneurs, which will help franchise purchasers. Infocentros has already negotiated with 5 banks to provide preferential loan rates for franchise seekers. Policies

currently under discussion to encourage e-commerce and exports will facilitate Infocentros' efforts to create business portals, e-commerce applications, and to drive small business people to the telecenters.

Despite the value of this government support, to some Infocentros executives it is a double-edged sword. They have expressed concern that because of the government's extensive involvement, Infocentros might be viewed, unfavorably, as a government project. Some fear a single politician's misstatement implying the organization is government-run could ruin the venture's image and marketing efforts. [15]

Some voice over IP applications, such as Net2Phone, are possible at Infocentros telecenters, but these popular services are not marketed because legislation and regulations are ambiguous about its legality, and Infocentros does not want either to challenge the regulations or to risk alienating telecommunication operators by trying to compete with them. However, during the earthquake in January 2001, Infocentros received the support of telecommunications operators when it offered 15 minutes of free calls over Internet to Salvadorians in the US. Eventually, Infocentros envisions offering regular telephone cabin services, but does not want to implement such a service now because it might require either an exclusive partnership with a telecommunications firm or competition with telecommunications companies that are responsible for providing IP connectivity.

### *Enterprise*

The creation of 100 Internet facilities enables Infocentros to negotiate favorable contracts for equipment and services from a wide range of vendors. For example, for hardware and software Infocentros has agreements (or is in negotiations) with IBM, Microsoft, and Sun Microsystems to use and sell their products. The strategy is to have a multiplicity of providers and partnerships.

Negotiations are in motion to establish an e-commerce platform that will allow the creation of a national small business-to-small business e-commerce network. Many small business owners lack the basic necessities—like credit—to purchase online. To address this need, Infocentros is developing and testing an e-commerce intermediation mechanism in which a buyer can pay in cash at an Infocentro for a purchase from an online catalog designed especially for small and micro-entrepreneurs, with an Infocentro establishment completing the transaction and paying the seller.

To increase telecenter usage during evenings and weekends, partnerships are being developed with schools and small businesses that wish to offer computer and Internet training to their students, faculty, and staff. Infocentros is arranging an alliance with the Ministry of Education so that 100,000 high school students can receive 8 prepaid hours of computer training, representing 800,000 hours of Infocentros use. In addition, it is negotiating an initiative to train public school teachers in Internet use.

Infocentros' partnerships and cultural transformation programs are unique for telecenters. IA also has been very entrepreneurial, negotiating deals with private companies to offer discounted Internet access to groups of employees or clients. Infocentros expects private companies to buy coupons for their employees or clients in discounted, 10,000-hour packs. Infocentros is negotiating with the organizations that represent small and micro sized enterprises – some 98% of the private enterprises in the country, to provide special training and applications.

Infocentros is planning to conduct national advertising campaigns to drive customers to the centers. In the last few months, Infocentros has developed a brand positioning campaign. And, to attract franchise investors, a special advertising campaign is being designed for launch later this year. With the help of Infocentros, each telecenter expects to be able to target and market products to specific local potential customers, using all available traditional means such as brochures, flyers, posters, local radio and TV advertising, and special promotions (such as free hours or reduced prices). Infocentros officials consider alliances with local social networks to be the most effective strategy to increase the facility use rates. Thus, the facility manager's skill at developing content and uses

of the franchise that match local interests and needs can make or break an individual franchise.

### *Content*

Community-based content, according to one of its founders, is what sets Infocentros apart and gives it a competitive advantage. For example, a new digital production center is being built at the headquarters that will allow Infocentros to generate, broadcast, and sell audio visual capsules focused on education and professional training. It will also enable Infocentros to rent its facilities to others or to operate Internet broadcasting channels for WebTV or WebRadio services.

To widen the market for Internet access, Infocentros' strategy involves reaching out to traditionally overlooked market segments. For example, the country's nearly 480,000 registered businesses are primarily micro enterprises with just a few employees. Most business owners have little formal education and are unfamiliar with computer management and accounting tools. Nonetheless they need and are demanding specialized services such as accounting, banking, invoicing, and stock management. Infocentros plans to develop applications and services to meet their needs that will be sold throughout the country via the franchise network, and be marketed by establishing alliances with local business associations. At this time, free Web page hosting for small businesses is provided by Infocentros, with 75 pre-formatted templates for micro business. A much wider variety of services and products is planned, including the B2B e-commerce portal for small and micro-entrepreneurs described earlier, and a suite of business applications designed to help these business owners manage their finances, investments, and billing.

Infocentros is planning to develop applications for accounting, stock management, invoicing, and transactions for small and micro-entrepreneurs who use their centers. Services will be first available only at Infocentros telecenters, to attract users, but Infocentros is considering eventually offering small business services more broadly online. To provide certificates or diplomas in information technology, it is developing a virtual training institute system that will eventually offer certification in Microsoft, Cisco, Adobe and Oracle applications. Telecenters also offer basic computer services and products at prices that are 30-50% lower than observed market prices in nearby cybercafés and business centers.

For Salvadorian immigrants in foreign countries, a portal is being developed in cooperation with the Foreign Relations Ministry. It will include information and meeting points, and later on, a money transfer mechanism. This will be potentially lucrative, as foreign remittances account for an estimated $1.5 billion per year, and traditional transfer mechanisms can cost as much as 30% of the transaction value.

**Table 2. Telecenter Services and Prices (US$/hr unless specified)**

| Product or Service | Regular User | Student User | Frequent User |
|---|---|---|---|
| Use of PC for Internet connection, office software, e-mail, chat, etc. | 2.29 | 1.26 | 1.94 |
| Microphone rental | 1.14/half hour | | |
| Photocopies | 0.03 | 0.03 | 0.03 |
| Printing, black and white | 1.5 | 1 | 1.25 |
| Printing, color | 3 | 2 | 2.5 |
| Image scanning | 0.34 each (0.91 printed) | | |
| Blank CD | 1.6 each | | |
| CD burning | 5.14 | 3.43 | 4 |
| Blank diskette | 0.57 | 0.51 | |
| Web page design | 40/page | | |
| Web hosting (50 MB) | 50/month | | |
| Fax (local) | 0.29 each | | |
| Conference room rental | 22.86/hour | | |
| E-mail account | Free | | |
| Online courses | 7.50 registration + 1.26/hour | | |
| On-site training | starting at $1 to $10/class | | |

FINANCIAL PERFORMANCE

Infocentros received the first payment of its loan at the end of February 2000. The initial months were dedicated to planning, organizational development, recruitment, technical design, identification of content and applications, franchise model development, and the preparation of procedures and manuals. Infocentros management reported that they spent an especially long time developing manuals so that they could serve as long-range business guides for the franchises.

The first five telecenters, including the one contiguous to Infocentros' main offices, were opened between October and November 2000 in Auachapan, San Miguel, Santa Ana, Soyanpango and San Benito.[16] They are operating as pilots to test the business model and to evaluate capacity use rates, the optimal mix of services offered, organizational and management procedures, income levels of users and price structures, and to iron out technical glitches. After 3 months of operation, Infocentros disengaged from the finances of these five telecenters. Since April 2001, they have not received any additional cash from Infocentros.

### *Estimated Costs of Facilities*

Infocentros has developed models to assess the financial feasibility of five different types of facilities, from small "economic telecenters" with 10 public computers to standard facilities with 20 computers, with services varying by facility type. Each facility has fixed costs, as outlined in the following table. The total initial fixed investment required per facility equals approximately $33,512.

**Table 3. Fixed Investment for a Telecenter (US$)**

| Initial Fixed Investment | Amount |
|---|---|
| Building renovation (average estimated cost) | 16,571 |
| *Equipment* | |
| Central Server | 2,700 |
| Administration computers (2) | 2,240 |
| B&W printer | 454 |
| Telephone system | 335 |
| Telephones (3) | 87 |
| Cable/LAN | 2,743 |
| Air conditioning | 1,371 |
| *Furniture* | |
| Executive office | 411 |
| Front office | 864 |
| Technician's office | 288 |
| Chairs | 206 |
| Tables | 987 |
| Archives | 206 |
| Waiting room chair | 247 |
| Software (Office, Norton Anti-virus) | 3,800 |
| **Total Fixed Costs** | **33,512** |

Source: Infocentros Franchise Department

The variable costs for setting up a facility range from $20,000 to $38,000 depending on the mix of hardware and services offered.

**Table 4. Variable Investment for Five Telecenter Types**

| Type of Franchise/Resources | Variable Portion of Initial Investment |
|---|---|
| TYPE 1 standard 20 PC classroom, all services | 37,603 |
| TYPE 2 economic 10 PCs, basic services | 21,510 |
| TYPE 3 standard 22 PCs, basic services | 38,903 |
| TYPE 4 economic 10 PCs, all services | 22,423 |
| TYPE 5 economic 10 PCs, no services | 20,093 |

Source: Infocentros franchise department

Accordingly, total startup costs range from approximately $54,000 for a bare-bones operation with 10 PCs to $71,000 for a larger facility with 20 computers and all ancillary services. The least expensive facility is just 25% cheaper than the larger, full-service business.

**Table 5.** **Total Real Investment by Telecenter Type (US$)**

| Franchise Type | Total Cost | Average Cost per PC |
|---|---|---|
| TYPE 1 standard 20 PC classroom, all services | 71,114 | 3,556 |
| TYPE 2 economic 10 PCs, basic services | 55,021 | 5,502 |
| TYPE 3 standard 22 PCs, basic services | 72,414 | 3,621 |
| TYPE 4 economic 10 PCs, all services | 55,934 | 5,593 |
| TYPE 5 economic 10 PCs, no services | 53,604 | 5,360 |

Source: Infocentros franchise department

Infocentros' model calculations determined that a telecenter with 20 PCs, operating at a realistic 45% of capacity, can be economically sustainable. With fewer than 15 computers, the Infocentro franchise is not financially sustainable at reasonable occupancy and use rates. However, the business plan anticipates that with alliances and partnerships up and running, usage will in fact exceed 45% and consequently increase profits.

Each Infocentro must meet monthly revenue targets to achieve profitability. A monthly revenue stream of $7,800 will just cover costs, but income of $15,000 monthly is considered a good level of performance.

**Table 6.  Financial Performance Targets for Telecenters**

| Performance Goal | Revenue in US$ | Comment on Profits |
|---|---|---|
| Minimal | 7,800 | just covers costs |
| Satisfactory | 10,000 | small profit, around US$1,000 monthly |
| Good | 15,000 | significant profit, US$4,000-5,000 monthly |

### *Actual Performance*

The following figure shows the actual revenue of the five initial telecenters for the period November 2000 to March 2001. As the figure illustrates, the facilities have had sustained income growth. In only one case, at the center in Auchapán, has there been a small diminution in revenues. Infocentros has replaced the facility manager and anticipates resumed growth. In the next few months, four of the five are expected reach the break-even target of $7,800. The fact that the San Miguel Infocentro reached this level of revenues relatively quickly was attributed by an Infocentros supervisor to the local manager's ability to identify and market services within local social networks.

**Figure 1.  Revenue Generated by First Five Infocentros Telecenters**



**Income Generated by each existing Infocentro November 2000 - March 2001**
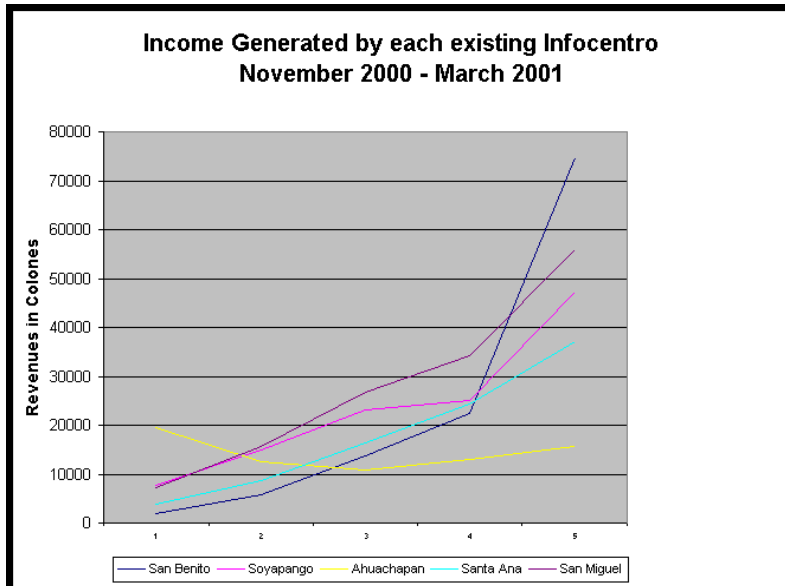
Overall expenses for the Infocentros Association totaled approximately US$1,150,000 for fiscal year 2000, including the one-time cost of renovating its headquarters and the entire cost of the first five telecenters, counting salaries, consultants, offices and furniture, connectivity, technical operations, workshops, and training.  For the fiscal year, Infocentros' losses equaled US$325,000, primarily for non-recurring salary, honoraria and remodeling expenses.  Infocentros' assets are US$1,600,000, including the assets of the first five telecenters.  Infocentros expects to recoup its investment from franchise sales, royalties and services within three years.  The following figure shows the expected income growth from royalties alone.

**Figure 2.  Infocentros' Projected Income from Royalties in Three Years**



Association Income from royalties
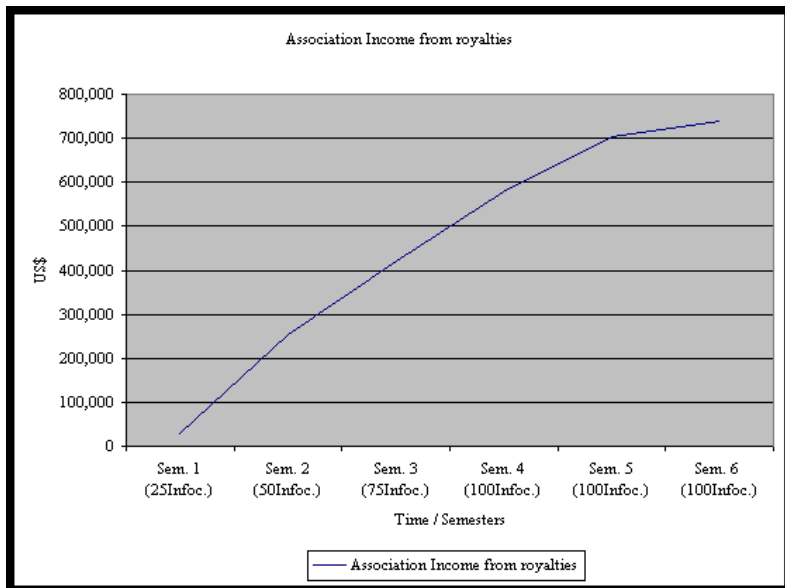
**CONCLUSIONS**

Infocentros is quite different from other developing country telecenter efforts in several key respects. First, Infocentros aims to grow very rapidly into a full-scale venture, rather than slowly establishing pilots or demonstration centers. Infocentros is the first large-scale effort to franchise telecenter businesses in the developing world.[17] This innovative—some may say radical—business model is cited by Infocentros officials as the reason why the initial $10 million investment was essential.

Second, Infocentros has been able to implement this radical business model because it received unusually strong support from the government. For a socially-oriented private entity, receiving a $10 million loan on extremely generous terms is quite uncommon.

Third, and most important, Infocentros' directors have put the development of relevant content and applications at the heart of the venture, considering it equally important as the provision of affordable computer and Internet access and training.

The key to Infocentros' success is the degree to which the business emphasizes content and services—the development of meaningful and commercially viable Internet-based applications, training services, audiovisual content production—over mere numbers of computers and access speeds. The services that Infocentros creates and sells will not only generate direct profits but will provide the added value that draws customers to the franchises in the first place. Infocentros' CEO describes the its business model using physiological metaphors: the "stomach" of the business is the services and content that make the Internet valuable to Salvadorians; its "heart" is the network of franchises that will constitute a nationwide system of telecenters; and the "soul" of the business is the cultural transformation of El Salvador into an information society.

Early evidence from the initial five telecenters is extremely positive. Infocentros is a startup enterprise—even though a non-profit association—but it appears to be meeting or exceeding its business targets. The facilities are popular and revenues are growing. Infocentros seems capable of reaching scale and providing the widespread Internet access and related social benefits that its founders intended. If revenue growth continues, the franchises will be lucrative, turning a profit after little more than two years. Given the enormous interest shown by Salvadorian entrepreneurs wishing to purchase franchises, Infocentros should have little trouble ramping up to 100 franchised telecenters.

### Impact on Sustainable and Social Development

With only five months of experience behind the first telecenters, it is too early to identify the social impacts of these facilities or even how much they are being used by individuals, groups or communities. Roughly 90% of the current users of the telecenters are school and university students, who use the computers primarily for homework, entertainment (chat, e-mail, Web browsing) and educational uses. While there are a few anecdotal cases of professionals and small businesses using the facilities for their firms, such uses are not yet widespread enough to result in broad changes in peoples' living conditions or in the environmental or social conditions of the communities in which they live and work. The project is contemplating implementing a monitoring and evaluation system to measure social impact but this is not yet in place.

Interviews with Infocentros executives and users revealed one visible impact of the project: considerable interest in the Internet has been created over a relatively brief period, and the technology is being demystified. Salvadorians from all walks of life—middle class and poor people, both urban and rural, who generally are never considered potential markets for information technology services—are becoming curious about and familiar with ICTs. As they become more familiar with and interested in the services and content that Infocentros provides, they

become more interested in how the Internet can meet their needs for income generation and jobs, health, and education.  Infocentros will enable them to use the Internet to create solutions for themselves.

# NOTES

[1] During a 1998 national consultation on the information society and the future of El Salvador, the government agreed to use some of the revenue from privatizing its telecom system as a loan to civil society to help transform the country, ensure widespread access, and facilitate rapid social and economic development. As a direct result of this agreement, Asociación Infocentros was created in 1999 and received the loan in February, 2000. IA began operation with the first telecenters in October, 2000.

[2] Five telecenters were operational during this case study. The IA business plan projected 18 months for these initial telecenters to become financially self-sufficient, but they achieved it in six months. Twenty five additional telecenters are expected to open by July, 2001, and over 5 years the number is expected to reach 500, although some will be smaller.

[3] A dedicated 128 kbps line costs approximately $600 per month in El Salvador.

[4] http://www.conectando.org.sv/English/index.htm.

[5] International Telecommunications Union, 2001. Telecommunications Indicators. http://www.itu.org.

[6] The national minimum wage is US$ 134, the rural is between US$ 90 and 100.

[7] Internet user estimates are notoriously unreliable, particularly in developing countries. Infocentros' CEO believes that the actual number of Internet users is significantly higher.

[8] http://www.conectando.org.sv/English/Strategy/Infocenters.htm.

[9] The Spanish phrase used by Infocentros' corporate members, "formacion cultural," would be translated as "cultural training" so we prefer to use "cultural transformation" as closer to the original meaning.

[10] http://rcp.net.pe.

[11] A franchise model that in fact they never really implemented, according to some independent researchers and confirmed by private correspondence and statements by RCP projects chief Sandro Ventura in public mailing lists in April 2001.

[12] In 2002, the organization will hold a general assembly to re-establish the board.

[13] For example, selling an 8-hour Internet training course to the National Ministry of Education. The course will be delivered to all high school students and will be held in Infocentros facilities.

[14] The second largest provider, SALNET, offers a $20 unlimited Internet connection, but phone charges are not included.

[15] Infocentros officials also noted that political support could eventually turn to smaller-scale, NGO-based digital divide projects, diverting interest and resources away from Infocentros.

[16] Another 15 had opened by mid-June, 2001.

[17] Only the RCP proposal (never implemented) and the Skumars.org initiative in India have been widely documented until today.

# APPENDIX:  SUPPORTING DATA

**CUSTOMER DEMOGRAPHICS**

Like Internet users around the world, the early adopters in El Salvador are young people, mostly students, who use the five telecenters in the morning and afternoon, after school.  With a deeply discounted price for students, an Infocentros telecenter is a cheaper place to get Internet access than a cybercafé.

**Figure 3.  User Income Distribution**
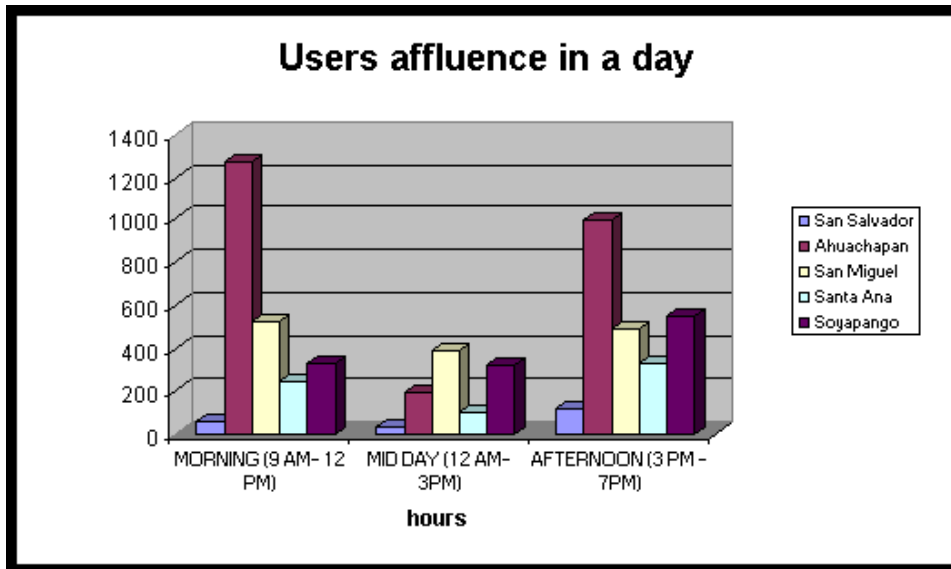


Source: Infocentros franchise department

**Figure 4.  User Age Distribution**
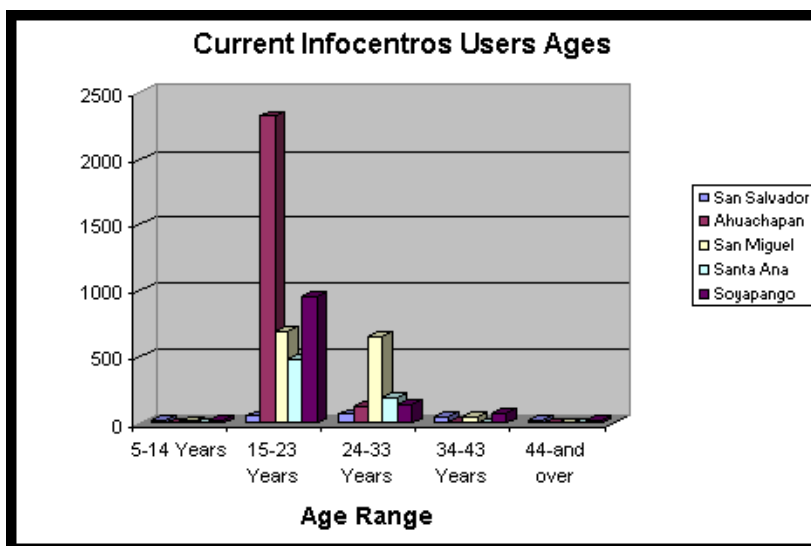


Source: Infocentros franchise department

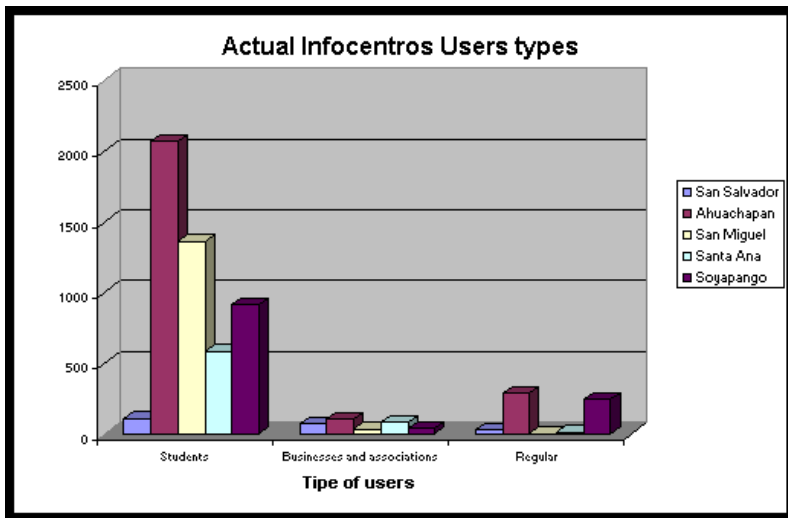**Figure 5.  User Type Distribution**



Source:  Infocentros franchise department

**ANTICIPATED OPERATIONAL REVENUES**

The following table presents the expected revenues generated by a hypothetical Infocentro franchise, according to Infocentros.   The model assumes that the facility is a standard 20-computer Infocentro with 60% capacity utilization (which is realistic, given the actual pilots' behavior and the strategies aiming to reach and maintain a high level of use). If these anticipated conditions are realized, after the second year business income should grow at a rate of approximately 11 to 14%.

**Table 7. Estimated Telecenter Income over Five Years (US$)**

| REVENUE | Total Year 1 | Total Year 2 | Total Year 3 | Total Year 4 | Total Year 5 |
|---|---|---|---|---|---|
| | | | | | |
| *Internet and PC* | | | | | |
| Regular users | 10,013 | 23,962 | 27,214 | 29,267 | 30,808 |
| Student users | 11,296 | 26,358 | 29,935 | 32,194 | 33,889 |
| Frequent users | 8,511 | 20,367 | 23,132 | 24,877 | 26,187 |
| Association members | 8,511 | 20,367 | 23,132 | 24,877 | 26,187 |
| *Training* | | | | | |
| Regular users | 6,179 | 14,291 | 15,917 | 19,512 | 22,592 |
| Student users | 12,357 | 28,583 | 31,835 | 39,023 | 45,185 |
| Frequent users | 9,577 | 22,152 | 24,672 | 30,243 | 35,018 |
| Association members | 17,146 | 39,659 | 44,171 | 54,145 | 62,694 |
| *Other services* | | | | | |
| Web page design | 2,377 | 2,825 | 2,880 | 3,017 | 3,291 |
| Web hosting | 960 | 1,130 | 1,152 | 1,207 | 1,317 |
| Printing (black & white and color) | 1,371 | 1,695 | 1,728 | 1,810 | 1,975 |
| CD burning | 1,143 | 1,413 | 1,440 | 1,509 | 1,646 |
| *Other optional services* | | | | | |
| Photocopies | 731 | 848 | 864 | 905 | 987 |
| Lamination and covers | 869 | 989 | 1,008 | 1,056 | 1,152 |
| Cafeteria | 777 | 848 | 864 | 905 | 987 |
| Diskettes and other accessory sales | 960 | 1,130 | 1,152 | 1,207 | 1,317 |
| Books and software | 1,463 | 1,695 | 1,728 | 1,810 | 1,975 |
| **TOTAL REVENUES** | 94,240 | 208,310 | 232,822 | 267,565 | 297,205 |
| **Growth** | | 121% | 11% | 14% | 11% |

Source:  calculations based on figures provided by Infocentros franchise department

Most of the revenue for the franchise is expected to come from training activities and related services, not PC rental and Internet charges, as the following table illustrates.  This underscores the importance of content development and education in the Infocentros business model.

**Table 8.  Telecenter Revenue Distribution by Type of Service (%)**

| Revenue Distribution | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|---|---|---|---|---|---|
| Internet and PC use | 41% | 44% | 44% | 42% | 39% |
| Training | 48% | 50% | 50% | 53% | 56% |
| Other services | 11% | 6% | 6% | 5% | 5% |
| **Total** | 100% | 100% | 100% | 100% | 100% |

Source: Infocentros franchise department

**OPERATIONAL EXPENSES AND PROFIT CALCULATION**

The following table identifies the operational expenses that a typical franchisee will bear. They correspond to the inputs necessary to reach the preceding figures of revenues and include the royalties paid to the association.  The bottom of the table presents the results (revenues minus expenses, after value-added tax), and the profits.

**Table 9. Estimated Franchise Operational Yearly Expenses and Net Profits**

| Operational Expenses | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|---|---|---|---|---|---|
| Trainer/teacher  (12 students per session) | 9,654 | 22,777 | 25,866 | 32,316 | 38,125 |
| Teaching materials | 451 | 1,063 | 1,207 | 1,508 | 1,779 |
| Printing | 823 | 1,037 | 1,078 | 1,151 | 1,280 |
| **FIXED EXPENSES** | | | | | |
| *Administrative* | | | | | |
| Manager | 10,971 | 11,191 | 11,410 | 11,630 | 11,849 |
| Technician | 8,229 | 8,393 | 8,558 | 8,722 | 8,887 |
| User support Assistant | 3,429 | 3,497 | 7,131 | 7,269 | 7,406 |
| Supervisor | 4,800 | 4,896 | 4,992 | 5,088 | 5,184 |
| Labor  Taxes | 8,695 | 8,869 | 10,173 | 10,369 | 10,564 |
| Rental | 13,714 | 13,989 | 14,263 | 14,537 | 14,811 |
| *Services* | | | | | |
| Water | 274 | 280 | 285 | 291 | 296 |
| Electricity | 4,800 | 4,896 | 4,992 | 5,088 | 5,184 |
| Telephones | 2,057 | 2,098 | 2,139 | 2,181 | 2,222 |
| Internet Connectivity | 4,114 | 4,197 | 4,279 | 4,361 | 4,443 |
| Insurance | 2,057 | 2,098 | 2,139 | 2,181 | 2,222 |
| *Maintenance* | | | | | |
| Housekeeping | 1,646 | 1,679 | 1,712 | 1,744 | 1,777 |
| Maintenance supplies | 686 | 699 | 713 | 727 | 741 |
| Office supplies | 686 | 699 | 713 | 727 | 741 |
| Royalties | 9,040 | 13,321 | 14,423 | 16,575 | 18,411 |
| **VARIABLE COSTS** | | | | | |
| Marketing material | 1,371 | 1,399 | 1,426 | 1,454 | 1,481 |
| Other | 1,371 | 1,399 | 1,426 | 1,454 | 1,481 |
| **TOTAL EXPENSES** | 88,869 | 108,477 | 118,926 | 129,371 | 138,884 |
| Value-added tax | 0 | 12,317 | 17,965 | 14,579 | 23,263 |
| Results = revenues – expenses – value-added tax | 5,372 | 87,517 | 95,930 | 123,614 | 135,058 |
| Equipment depreciation | 11,994 | 11,994 | 11,994 | 11,994 | 11,994 |
| Profits after depreciation | -6,622 | 75,523 | 83,937 | 111,621 | 123,065 |
| Income tax | 0 | 18,881 | 20,984 | 27,905 | 30,766 |
| **Profit after taxes** | 1,035 | 68,636 | 74,946 | 95,709 | 104,292 |
| Net profit rate | 1% | 33% | 32% | 36% | 35% |
| Average profitability rate | 78% | | | | |
| Five-year average profits | 68,923.79 | | | | |

Source:  Infocentros franchise department

**INVESTMENT RETURN**

The typical franchise will have a positive return on investment after 27 months.  At three years, the internal rate of return will be 33%, as the following figures illustrate.

**Table 10. Investment Return Period and Future Value**

| Investment Return Period | 17 Months |
|---|---|
| Initial investment | 88,715.46 |
| Accumulated net profit | 87,663.76 |
| Net present value at 6 years | 131,669.49 |
| Internal rate of return at 6 years | 58% |
| Net present value at 3 years | 24,670.92 |
| Internal rate of return at 3 years | 33% |

Notes: with a financial money discount rate of 18%
Source: Infocentros franchise department

These financial estimates, based on Infocentros calculations, interviews and documents, incorporate fairly conservative assumptions about projected costs, occupancy rates, and market growth. Most of the cost and income calculations are based on the actual perfomance of the first five operating Infocentros. And, while these figures are used internally to benchmark individual franchises, they are not used to market the franchises because the performance of an individual franchise depends on local market conditions and the savvy of the owner-operator.

### GROWTH STRATEGY

Infocentros plans to sell the first 25 centers for approximately US$60,000, a "promotional" price that does not entirely cover costs, which are estimated to be between US$80,000 and US$100,000, including the franchise's share of the central Association and network administration investments. By 2002 to 2003, operating and financially profitable Infocentros franchises will be sold for approximately US$125,000. The royalties expected from the franchisees are, as a percentage, inversely related to the income generated from the centers. The following table indicates that royalties are expected to range from 7% to 12%, depending on how well the centers are performing.

**Table 11. Franchise Fee Schedule**

| Royalty Rate/Sales Volume in US$ | Sales Revenue Limit | Fixed Rate for Marketing | Variable Rate | Total Royalties |
|---|---|---|---|---|
| Sales revenues up to | 10,000 | 2% | 10% | 12% |
| Sales revenues up to | 15,000 | 2% | 8% | 10% |
| Sales revenues up to | 50,000 | 2% | 5% | 7% |

Source: Infocentros franchise department

By the end of 2001, Infocentros anticipates that it will grow to 50 centers, of which 35 will be owned and managed by Infocentros and 15 operated as independent franchises. Infocentros forecasts 100 businesses operating, 90 as franchises, by the end of 2003.

**Table 12. Infocentros Network Plan for Growth**

| Date | Total Infocentros | Directly Owned and Managed | Franchised |
|---|---|---|---|
| end of 2001 | 40 | 35 | 15 |
| end of 2002 | 100 | 10 | 70 |
| end of 2003 | 100 | 10 | 90 |
| after 5 years | around 500 | | |

Source: Interviews

Infocentros reports robust demand for the franchises by Salvadorian entrepreneurs. Already, approximately 150 entrepreneurs have asked to purchase a franchise. However, Infocentros does not plan to sell franchises until the first 25 businesses are operational, all the elements of the business model are in place, and financial performance is proven to be sound.