



# The Information Broker Concept

An Innovative, Business-driven Method of  
Delivering Information e-Services



“Bringing the benefits of information technology  
to the people instead of waiting for people  
to come to the technology”

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## Introduction

### Scope

This document outlines HP's strategy for developing and implementing the innovative Information Broker Concept. It describes the structure of the information delivery model, and presents results of a pilot program carried out in the Summer of 2001 in Costa Rica. Potential customers include: governments, non-government organizations (NGOs), corporations, and small to medium enterprises (SMEs).

### About the Author

Scott Bossinger is a Worldwide Business Development and Program Manager at HP e-Inclusion Solutions. Scott has broad information technology industry experience in worldwide development and marketing of high-tech hardware, software and e-services for both consumer and corporate markets. While at HP, Scott has worked in a variety of capacities including product and solution development and management, infrastructure and e-services strategy, business development, program management, and customer service and support. Scott also led development and deployment of strategic marketing plans for a leading application service provider (ASP) as Director of Marketing at NaviSite's Streaming Media Division.

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### Acknowledgements

This Information Broker Concept arose from a synthesis of ideas from the many motivated and intelligent people on the HP e-Inclusion Solutions staff and other HP volunteers. Without their support, this program would not have taken the leap from PowerPoint slides to an applied information delivery model.

Juan Barrios, Director of the LINCOS program, was a key contributor to the program's success. Juan's natural creativity, flexibility, and enthusiasm for the concept were essential to the success of the pilot program.

Finally, both Juan and I appreciated the professionalism, dedication, and positive attitude of the local program manager, Ana Lucia Calderon. Applying her skills as an applied anthropologist, Ana Lucia played a key role in successfully resolving program issues with diplomacy and creativity. Her support and encouragement contributed meaningfully to each broker's individual success.

Thank you, to all involved, for your contributions.



"The service is good because it allows me to be updated with information from abroad and with services that would not be available to me without this program"

*José Miguel González, Costa Rican cattleman*

## 1. Executive Summary

The Internet has transformed the way millions of people communicate, do business, and share information. For the vast majority of the world's population who live in developing nations, however, the benefits of the Internet are only a dream. Entrepreneurs whose businesses could greatly benefit from information technology have no Internet access, citizens are unable to use email to communicate with family and friends, and school children are robbed of the educational benefits of using the World Wide Web as a doorway to the world.

Until now, that is.

The Hewlett-Packard Company's Information Broker Concept brings the benefits of information technology to the people of developing nations like Costa Rica where, until now, they had little or no opportunity to access the Internet.

The Information Broker Concept provides access to important information, creates new jobs for local entrepreneurs, encourages growth of the local economy, and brings the benefits of Internet technology directly to the people.

Through a network of local business people — information brokers — who market technology services door to door, even people in remote areas can now send and retrieve e-mail messages, obtain information from the Web, and access customized photo printing and enhancement services.

Each of the personalized, fee-based services provided by the information brokers is designed specifically to meet the specific needs of the people of the community. Much of the developing world's population is hindered by the lack of computer knowledge and convenient telecenter access. Even where community telecenters do exist, the fear of taking that initial step into a telecenter for a first time computer user cannot be underestimated. Information brokers act as a bridge to bring the benefits of information technology directly to those who have been left behind.

## Structure of the Program

To provide communication and information services to the people of his or her community, the broker visits small businesses and households to collect orders for information from the customers. The broker then returns to a local telecenter where he or she fulfills the information requests. After the broker has fulfilled the customer's order, the broker delivers the requested information or communication directly to the customer's home or business.



**An information broker in Costa Rica delivers information to a homemaker**

## Pilot Program

In the fall of 2001, HP tested the Information Broker Concept in two communities in Costa Rica. Little Intelligent Communities (LINCOS), directed by former Costa Rica President Jose Maria Figueres, worked with HP in the pilot program

In each town, a performance-based enterprise was set up, a local program manager was hired, and eight brokers were selected to sell information services. HP provided handheld HP Jornada computers and digital imaging devices to each broker.

After training, the brokers began offering services by directly approaching private homes and small businesses in their own village and 20 other surrounding villages.

## Future Outlook

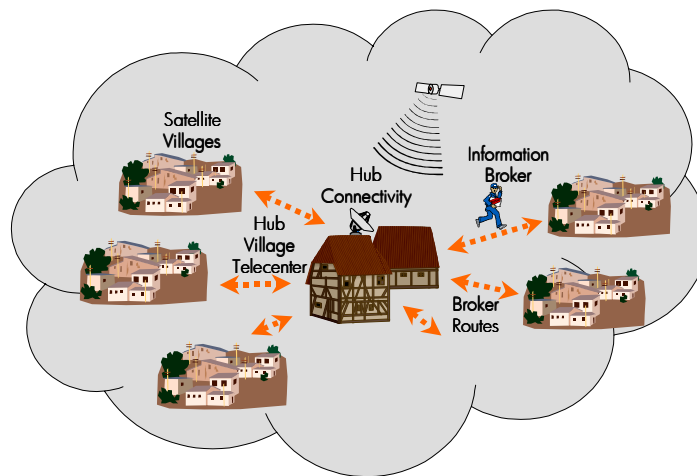
The pilot program demonstrated the validity and future potential of the Information Broker Concept in several ways: customer's reactions to the services were very favorable and brokers were enthusiastic about the income opportunities the program created. The next step is to expand the program so more locations around the world can experience the benefits of information technology for themselves.

To bring information technology to the people of other developing nations, HP would like to partner with other organizations to customize the Information Broker Concept for the specific needs of the organizations and locations. Ideal partners are government organizations, non-government organizations (NGOs), SMEs such as telecenter operators, and corporations.

The benefits to both the partner organization and to the developing nations are great.

- Local small businesses can access information and obtain ideas for business success on the Web. By learning new skills and techniques, they will grow their business and increase local revenue.
- Partners contribute to the success of the local community and can help the people and small businesses in developing nations worldwide achieve economic stability and prosperity.
- Partners, particularly those interested in tapping into the global market, can develop new channels and business opportunities, thus increasing corporate recognition and revenue worldwide.

This white paper presents the Information Broker Concept and shows how it can be implemented in many locations around the world with success.



**Information Services Flow**



## 2. The Information Broker Concept

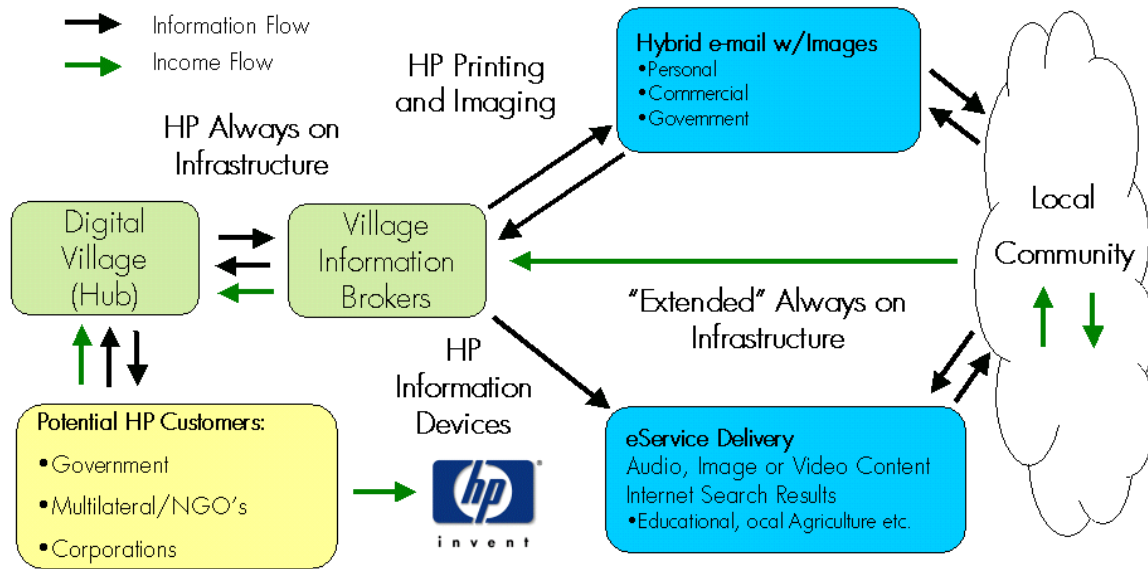
The Information Broker Concept builds upon a previous project co-developed by The LINCOS Foundation and HP's e-Inclusion Solutions: solar-powered Digital Town Centers that offer computers, satellite communications, and high-speed Internet connections. These telecenters have been established in several rural Costa Rican and Dominican Republic communities and now offer computer and Internet access to local residents who previously had only limited ability to access the Internet or other computer applications.

The objective of the Information Broker Concept is to extend information and technical services to people and small businesses who otherwise would not have this access. Much of the region's population is hindered by lack of computer knowledge, fear of technology, and limited transportation options. Even where community telecenters do exist, many locals are afraid to take that first step into them.

This is where the information brokers provide a much needed solution. Local residents with technical expertise serve as information brokers to prepare and deliver the information services to the customers. In this way, the first experience with information technology is less intimidating. The information broker serves as a bridge, gradually introducing the benefits of new technology to the people.

### Strategy

The information broker sells affordable and much needed services directly to the people at their homes or businesses. The information delivery methodology could be compared to a giant "sneakernet" in which the last mile of connectivity is provided by the information broker. The concept uses a decidedly low-tech delivery mechanism (people), while applying high-tech tools and a profitable business model. The end result is that the program improves the ability of people to access information and services, which contributes to their success and business potential, while creating economic benefit for program employees and administrators.



**Information Flow**

Several business analogies illustrate the effectiveness of this promising concept. One is the success of Grameen Phone in delivering voice service to the urban poor in undeveloped nations. Grameen Phone has made its name largely due to the success of its parent firm, Grameen Bank. Grameen Phone utilizes local resellers to deliver phone access directly to the people. Phone time is sold on a direct basis, and salespeople earn commission on every minute of phone time sold. The locally driven component is important to the program's success, as is the fact that the reseller earns a high commission.

Information brokers are similar to Grameen Phone's voice service resellers. The difference is in the services offered by information brokers: communication (e-mail), information searches, and digital imaging. A key difference in HP's business model is that the Grameen Phone Company owns the network on which services (voice services) are delivered, while the HP brokers simply access a network. Though the brokers have limited control over the quality of information available, they have access to a wider array of information and services, thus increasing perspective audience and revenue.

The direct sales approach employed at Information Broker Program is analogous to that used by the innovative plastic cookware marketer, Tupperware. Tupperware's success confirms the benefits of a loosely organized entrepreneur driven approach. Creativity is rewarded as the individual salespeople develop their customer base and convince existing customers to purchase more services. High sales performance is rewarded through a commission-based salary. Top performers frequently earn more money at this type of pursuit than at traditional salaried jobs. The direct sales approach has also been highly successful for companies that distribute other products targeted at individual consumers, such as cosmetics, knives and encyclopedias.





An important component of the program strategy is ensuring that each active partner benefits from the venture. Partners in the Information Broker Program benefit as follows:

- **Information Brokers:** For the individual entrepreneur, the business model is straightforward. For each sale completed the information broker earns a commission. The sales commissions earned eventually cover costs of order fulfillment and delivery, while also providing personal income equal to or greater than the average income in the local region.
- **Community/Telecenter Operators:** The telecenter operator (which in some cases is the community itself) also earns a commission from each sale and gains traffic as community awareness of the available services increases.
- **HP:** Through taking an active role in defining the parameters of the concept, HP has the detailed knowledge required to create and market the devices and the services required by information brokers. HP devices utilized in the project include handheld computers (HP Jornada), digital imaging devices, printers, and associated supplies.

## Structure

The structure of the Information Broker Concept has been developed in part to make it easy for brokers to be successful. Brokers use a direct sales approach and work on a commission basis to provide the information services to their community. To get started, brokers must have access to an Internet connection and information technology tools, and they must have basic computer skills and a talent for sales.

Brokers use HP information technology tools, including a digital camera and a handheld computer such as an HP Jornada to record and fulfill orders and to capture photographs and audio. The broker then travels to a telecenter to fulfill the orders using the Internet and other devices including HP printers. The results of the orders, such as printouts of search results or photographs, are delivered to the customer within a few days.

## Customer Benefits

There are several potential types of customers that would see value in supporting programs like the Information Broker Program.



## National, State, and Local Governments

Governments can realize value from investing in this type of infrastructure in several ways. The key benefits are:

- **Open Channels of Communication:** Governments that invest in promoting the information broker model will have a dedicated channel to communicate directly with citizens. This information can be related to health, agriculture, culture, or community activities. Additionally, governments can leverage existing investments in people, such as state sponsored agricultural inspectors and intermediaries, and public health monitors. For example, if the government is already sending out agricultural inspectors to local farms, the inspectors could broker services such as Internet searches for crop and weather information.
- **Efficient e-Service Delivery:** In underdeveloped regions, it is often difficult to deliver information services to the community. Even governments that are progressive enough to be implementing e-government programs are constrained by the fact that most people cannot access the new services offered. If governments implement e-services such as the obtaining of land deeds and titles, brokers can extend access to more citizens.
- **New Job Creation:** The Information Broker Program provides fulfilling and gainful employment opportunities for local residents interested in sales and technology.
- **Increased Return on Investment:** Governments that have already invested in the creation of telecenters are often disappointed in the actual numbers of people who access the services in the centers. For a fraction of the cost of developing new satellite telecenters, governments can improve the access return on investment (ROI) in existing telecenters. We define access ROI as:

Access ROI = # of citizens accessing services/investment

ROI is improved as more citizens learn about the services available. During the pilot program, brokers are estimated to have communicated with more than 10,000 citizens.

## NGOs/Multilaterals

When a Non-Government Organization (NGO) or Multilateral invests in the Information Broker Program, it has the opportunity to improve upon its investments in several ways:

- **Efficient Information Delivery:** Using information brokers to deliver information provides an additional channel through which an organization's messages may be communicated. For example, an NGO that promotes AIDS education can deliver educational materials to remote populations that may not benefit from TV, print, or other media.
- **Increased Reach:** With the assistance of information brokers, organizations can reach a broader population in developing nations.



- **Enhanced Program Sustainability:** With the recent massive infusion of capital from NGOs and multilaterals into ICT based projects in developing countries, investments in telecenters and community centers have been particularly prevalent. There is a great need to see that these telecenters become sustainable while fulfilling their original objective—providing access to information services to the general population. By increasing the reach of the centers, through the use of information brokers, investors stand to increase the sustainability of existing telecenters.

### Corporations

For progressive corporations who want to tap emerging market opportunities, the following benefits exist:

- **Access to New Channels:** The sustainable delivery mechanism could offer multinational corporations (particularly consumer goods companies) access to important new channels.
- **Increased Revenue Opportunities:** For those few who already have existing channels (Coke, Hindustan Lever etc.), it may be possible to apply the Information Broker Concept to increase revenues. Employees who are already accessing the people may be able to broker information services, thereby increasing revenue. Additionally, any information accessed and distributed to the customers can carry the company's logo and advertising, potentially increasing brand loyalty.
- **Brand Awareness:** Even for companies not directly managing the information brokers, partnerships can be created whereby companies investing in the program get their brand promoted on brokered products, thereby increasing brand recognition.

### SMEs

Small and medium enterprises, such as telecenter operators, would benefit from extending their business to this delivery channel. Benefits would include:

- **Increased Revenue Opportunities:** Telecenters can earn incremental revenue in the form of a commission on every transaction the brokers process.
- **Promotion and Increased Traffic in Centers:** As the community becomes more aware of the benefits of the available technology, due to brokers personally communicating with residents, it is highly likely that a larger number of local residents will use the services at the telecenters. During the pilot program, one of the centers experienced a 50% increase in traffic after brokers began marketing the services.



### 3. Pilot Program

To test the Information Broker Program in a real-world setting, HP designed and implemented a three-month pilot program from August to October 2001.

HP chose as their partner Little Intelligent Communities (LINCOS), a Costa Rica-based organization directed by former Costa Rica President Jose Maria Figueres. LINCOS was selected based on operational readiness, environmental fit, their previous relationship with HP in implementing Digital Town Centers in Costa Rica, and their strong commitment to improving technology and communication in Costa Rica.

#### Goals

The pilot program had three goals:

- **Determine the level of demand for information services.**

In the pilot communities reaction to door-to-door delivery of information services was very favorable, and community excitement was consistently high. Customer demand increased steadily throughout the three months of the pilot program.

- **Determine the ongoing sustainability of the business model.**

After developing a regular client base, several of the brokers chose to continue to operate without the nominal salary that was paid for the first three months.

- **Identify the most popular and in-demand services.**

The most frequently requested services were printed content such as photographs, photocopies, Internet searches, and hybrid e-mail.

#### Geographic Location

To meet these goals, two Costa Rican communities were chosen as sites for the pilot program. Both communities had LINCOS-operated Digital Town Centers available for the brokers to use for Internet and other computer activity. The communities were San Joaquín de Cutris, a remote agricultural village, and San Marcos de Tarrazú, a mid-sized village with coffee as its primary source of income.

In each location, HP and LINCOS worked together to construct a loosely organized, performance-based program and a project manager was hired to hire, train, and manage the brokers and to record results.



## Costa Rica

### San Joaquín de Cutris

San Joaquín de Cutris is located in the North Huetar Region of Costa Rica. The region has been colonized by immigration from Nicaragua and other parts of Costa Rica. The main economic activity is agriculture of grains, sugar cane, livestock, dairy products, and oranges. Non-traditional products, such as palm trees, ornamental plants, ginger, wood, yucca, yam, malanga, and others, are also produced for international sale. In some areas of this region, ecological tourism has become an important economic activity. Average monthly family income was estimated at between ₡15,000 and ₡20,000 (colones), or \$45 – \$60, in a 1996 Placer Dome study.

Oranges are harvested by national and transnational companies. Other companies employing residents include two tubercle packing companies, two big livestock farms, fruit plantations and five sawmills. The region has a large number of Nicaraguan migrants who come to the area for seasonal agricultural employment, especially in the orange harvesting industry.

The area has little government involvement, but there are a great many local organizations, created to improve living conditions, and to address education and other social and economic issues.

The population of San Joaquín is 337 people, 170 men and 167 women. The surrounding area has a population of roughly 4,000.



Roads in the region are currently dirt, and become very difficult to travel during the rainy season. The Minister of Public Works and Transportation recently signed a contract to pave the main road. There is a bus that operates three services per day, but the bus service is inconvenient for many locals. The residents of most communities have to walk long distances to reach the bus. In addition, bus service is inconsistent during bad weather and when road conditions are unstable.

Electricity reaches 95% of households, but only 50% have telephone service. Most communities have a public phone, and San Joaquín's closest neighboring town, Coopevega, which is about five miles away, has a fax machine for public use. San Joaquín has one computer, which belongs to a professor, and gets limited use by other residents. Coopevega has four functioning computers, one in the Social Security office, and three in private companies. The college, located about 30 km from San Joaquín, has a computer laboratory where there are 30 computers in operation. However, the college does not yet have access to the Internet. It expects to install a network and Internet access within the next year.

### **San Marcos de Tarrazú**

San Marcos is located in the canton of Tarrazú, within the zone of Los Santos. Los Santos also includes the cantons of Dota and León Cortés.

The primary economic activity in the Los Santos zone has historically been the production of coffee. Recent declines in the price of coffee have led many residents to diversify agricultural activities. Other agricultural products include apples, peaches, avocados, and strawberries. Tourism and the production of honey and cheese are other active industries in the area.

The zone of Los Santos has a total population of 32,375, about 50% male and 50% female. Migration out of the area, especially to the United States, is fairly common. Partially due to the migration, social problems such as child abandonment, alcoholism, drug addiction, abuse, and domestic violence are prevalent.

Each canton has primary schools, and each has a high school that includes a computer lab. Most schools do not have access to the Internet, and functionality on the computers is limited. Many businesses and stores have Internet access, but e-mail is the only common use of computers. San Marcos and San Pablo each have an Internet café, where use is charged at a rate of colones ₡650, or about \$2, per hour. The café's main customers are adolescents and tourists.

## **Launching the Pilot Program**

After choosing a partner and identifying geographic locations, the next step was developing profiles for the personnel to be involved. Then meetings with the LINCOS Foundation and telecenter personnel were conducted to coordinate the execution of the project.



## **Selection of Personnel**

HP's director of the program and the local coordinator identified the following traits as necessary for an information broker:

- Ability to read and write
- Organizational skills/flexibility
- Meeting facilitation and group communication skills
- Creativity and a sales instinct
- Understanding of community issues
- Positive attitude towards technology, with basic knowledge of Microsoft Windows
- Residing in the community
- Ability to travel out of town for training and direct selling

## **Training Information Brokers**

After brokers were selected, training courses were conducted. The objectives of the training were to teach brokers about the project and its organization, basic management of the Jornada, and sales and marketing techniques. Specific training topics are detailed in Appendix D.

## **Marketing the Services**

At the training each broker received small booklets describing the Information Broker Program and the services available. It was determined that the first two weeks of operation should be dedicated to promoting the program in the communities. Methods of promotion included visits to households and educational centers, distribution of booklets after religious services, and delivery of letters and requests for appointments with representatives of businesses, organizations and institutions.

After training, the brokers began offering services by directly approaching private homes and small businesses in their own village and 20 other surrounding villages.

## **Setting Sales Incentives and Services**

In order for the brokers to have an additional incentive (besides commission earned) to generate revenue, sales quotas were set. If a broker reached the quota an additional financial reward would be offered. Prices were established, with the goal being accessibility for all community members. Initial prices were quite low in relation to the family income. Initial prices were as follows:



Information Format	Colones	Dollars
Hybrid e-mail sent	300	\$ 0.91
Hybrid e-mail received	300	\$ 0.91
Other printed content	500	\$ 1.51
Search	300	\$ 0.91
E-commerce Web page	10000	\$ 30.27
Newspaper with classifieds	1000	\$ 3.03
Photocopy service (per copy)	15	\$ 0.05
Fax Service (per page)	300	\$ 0.91
Typing Services (per word)	10	\$ 0.03

Broker Service Prices

## Results of the Pilot Program

### Community Reaction

After the pilot had been in operation for a month, interviews were conducted to assess the community reaction to the program. Interviews took place in the three cantons of Los Santos, and in San Joaquín and surrounding communities. Interviewees represented a cross section of ages and occupations.

Of the 30 interviewees, 20 were clients (six were frequent clients), and 10 were people who had not used the service previously. All agreed that the service was useful, efficient, and inexpensive. Some customers were hesitant to use the service because they did not have a need to access information via e-mail, and while others wanted to use e-mail, they did not know how to acquire contact e-mail addresses. Many felt the service applied more to students than to themselves.

According to customers, the main benefit is the ability to communicate, and to have access to information and printing services, without leaving the home, community, or work place. Another benefit cited is the ability to learn about and access technology without investing a large amount of money, time or transportation.

Following are samples of client comments:

*“It has been useful for me to be in contact with my daughter who lives in Nicaragua. I send her a message every week and she responds. Adriana (the broker) brings me the letter and also sends it for me and then she brings my daughter’s response. I do not have to move.”* (Teresa Cordero, housewife, San Joaquín de Cutris)





*"This service has been very useful because this community does not have a library and one with limited knowledge can not help them (children that study) with the school work. Now we just ask Lourdes (the broker) and she brings us the information. I also asked her to bring me some recipes because my stove does not work and she has brought some for the microwave." (Claudia Méndez, housewife, Santa Cruz de León Cortés, Los Santos)*

*"For me this service is excellent because it allows me to have this technology. I have sight problems, but with this service it is very easy for me to have e-mail without my own computer and without going to LINCOS. The price is reasonable, considering one makes this investment to improve oneself." (Juan Carlos Arias, retired music teacher, San Marcos de Tarrazú, Los Santos)*

*"I found the price very cheap considering the type of service, and it is a great opportunity for students. We do not have books, and now new doors are opened for learning." (Auxiliadora Bermúdez, housewife, El Rodeo de Tarrazú)*

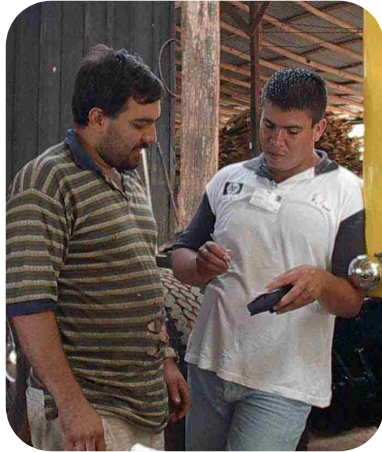
*"The service is good and cheap and gives me a lot of facilities to look for information for schoolwork." (Salomé Blanco, high school student, San Marcos de Tarrazú)*

*"I asked the Broker for a search about chemistry and he did it very well, I got very good grades with my work... I am going to ask for more." (Graciela Arroyo, high school student, La Sabana de Tarrazú)*

*"For me, this project is very good. Nobody has come here before to offer help and we, through this project, have gotten e-mail. We have been sending messages to many institutions and have received responses." (Freddy Castro, Director de Llano Bonito Primary School, León Cortés, Los Santos)*

*"The service is good, one does not have to walk, for me it is useful and with very good prices. I am old and can not learn anything about [computers]. But now Luis (the broker) finds dessert recipes, and in the future we want to advertise some lots that we want to sell." (Blanca Rosa Zumbado, housewife, Santa María de Dota, Los Santos)*

*"In my case, my husband is in the United States, I can send him messages by e-mail and photographs of our children. It is easy...faster and very cheap..." (Angélica Monge, housewife, Santa María de Dota, Los Santos)*

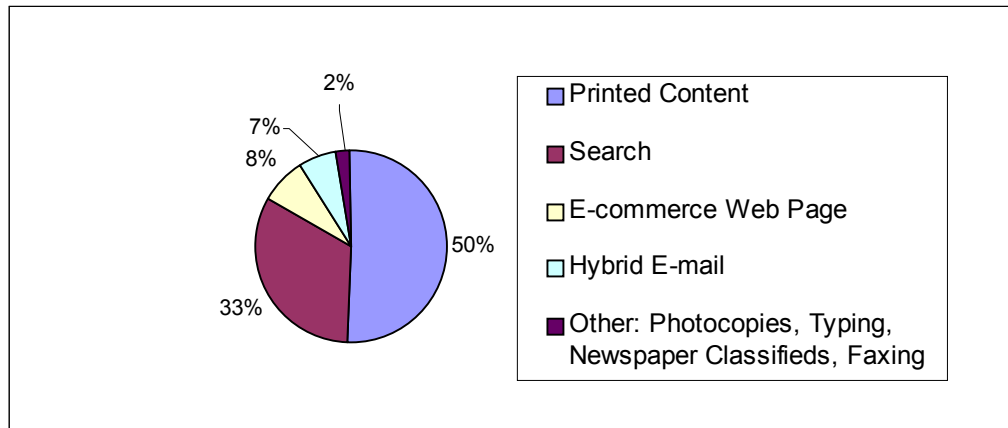


Information Broker Freddy Murillo discussing the services offered with Javier Alfaro, the owner of a local sawmill.

“This service is good because I don’t have to move around”

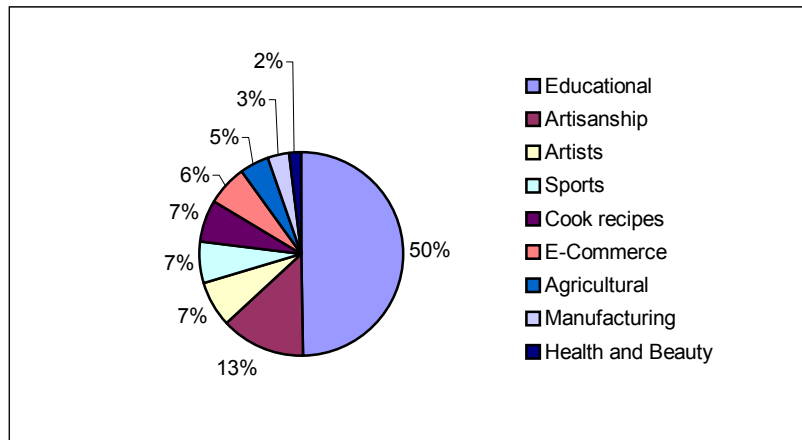
### Most Frequent Requests

The service type that generated the most revenue was printed content, particularly photographs taken with the digital camera, and reproduction and enhancement of old photographs. Internet searches and hybrid e-mail were also frequently requested. The chart below shows service request revenue by type of service.



**Service Revenue by Type**

Internet searches were highly requested, especially by students in subjects such as history, art, biology, social studies, literature, and chemistry. Housewives requested searches for information about artisanship, artists, and recipes. E-commerce and sports searches were also frequently requested. The breakout of Internet searches by type is shown below.



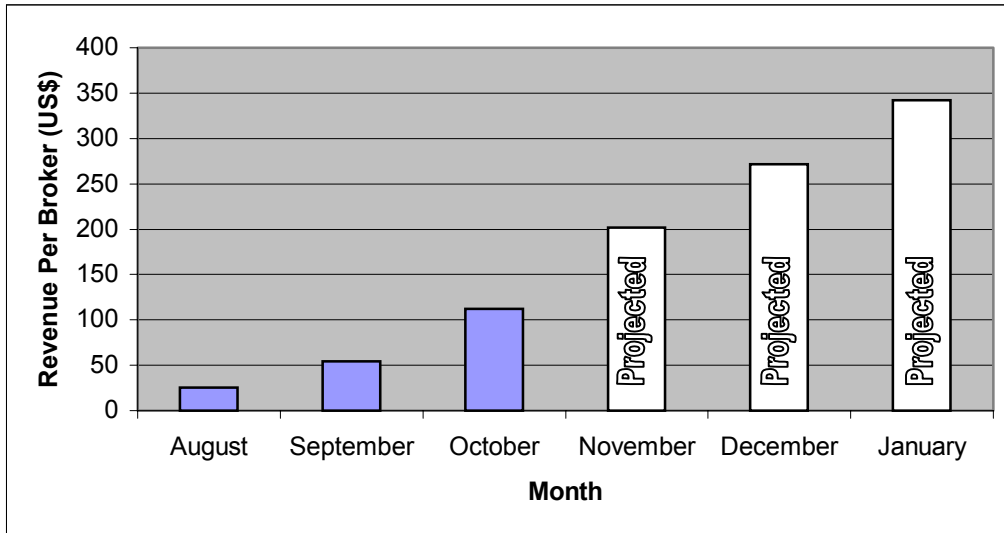
Internet Searches by Content Type

### Financial Results

Both the revenue generated by each broker and the average revenue per-broker increased monthly. Earning a commission of 33% of revenues, by the third month most brokers were able to earn roughly the average family income of the region. The table and chart below show detailed results by broker.

Broker	August	September	October	November (Projected)	December (Projected)	January (Projected)
Luis Elizondo	\$13.94	\$184.70				
María Elena Mata	\$88.64	\$73.64	\$196.67	\$270.49	\$346.64	\$419.84
Lourdes Venegas	\$25.61	\$60.45	\$76.21	\$107.10	\$139.65	\$171.49
Minor Vega	\$9.59	\$43.03	\$136.82			
Kenneth Cordero	\$15.65	\$22.58	\$143.68	\$227.80	\$327.83	\$435.80
Rosario Godínez	\$12.32	\$20.00				
Adriana Carranza	\$24.77	\$26.21	\$7.27			
Freddi Murillo	\$10.61	\$6.67	\$2.73			
Monthly Total	\$201.13	\$437.28	\$563.38	\$605.39	\$814.13	\$1,027.12
Active Brokers	8	8	5	3	3	3
Avg per Broker	\$25.14	\$54.66	\$112.13	\$201.80	\$271.38	\$342.37
Monthly Growth		117%	105%	80%	34%	26%

Note: Three brokers continued to sell after the pilot program ended in October.



**Revenue Generated by Broker**

The data shows that performance did improve significantly over time, as most brokers' October results were between 2 and 14 times the August results. Brokers stated that by October, many customers were calling them to request services, so less time needed to be spent generating business. By January, projected revenue per broker should average almost \$350 per month. Brokers have also negotiated a revised revenue sharing agreement with the LINCOS center, whereby the brokers retain 66% of the gross receipts. The result will be per broker income of about \$225 per month. Compared with average monthly family income in San Joaquín de Cutris of between \$45 and \$60, income potential is substantial.

The LINCOS centers benefited financially from the broker program in two ways. First, the telecenters earned two-thirds of revenue generated by brokers. Also, as more people in the area learned about information service availability, (as a result of interacting with the brokers) telecenter traffic increased. In San Marcos, for example, customer traffic at the LINCOS center increased by 50% in August.

### **Broker's Reactions**

Most brokers stated that they were satisfied with the information broker job. The job offers the opportunity to help people, gain technological knowledge and skills, and be involved in a unique, innovative business.

Following are examples of broker comments:

*"[What I enjoy the most about this job is the opportunity] to learn more about computers, to use the software and the machines have been what I liked the most about the project, but also to do something useful for people and to meet people, to be in contact with them, to visit the households."*



*"We are doing something that nobody has done before, visiting households and people like this, somehow we are helping them and they are helping us."*

*"This is an important work for the area, mainly because of electronic commerce, with Web sites to sell products of the region, to give them promotion."*

### **Lessons Learned and Recommendations**

The pilot program successfully met its goals and provided highly useful data regarding the potential for the Information Broker Program. In addition, the pilot program set the stage for developing the Information Broker Program in other locations.

As a result of the pilot program, we learned some important lessons that will make further development of the program more efficient and successful.

#### **Delivery Efficiency**

##### **Lessons learned**

In Costa Rica, only one percent of the people have cars, so most brokers travel by bus or motorcycle. This created the greatest challenge the brokers faced in the pilot program: how to efficiently reach customers in their homes or offices given the transportation difficulties.

In the pilot program, some brokers used a central meeting place, such as the general store, in each village. The broker established a time each week to come to this location where he or she met with potential customers to collect requests and deliver information. This strategy was very effective in reaching the most customers in the most efficient manner.

##### **Recommendations**

In addition to establishing a central meeting place in each village, other methods should be used to reach customers:

- Establish a drop box where customers will drop off their requests and brokers will pick them on a regular schedule
- Visit schools, churches, and other public places where people congregate

#### **Marketing**

##### **Lessons learned**

Marketing is crucial to the success of the Information Broker Concept. During the pilot program, brokers did an outstanding job of marketing the program to people and small businesses in their territories. These considerable marketing efforts paid off in the highly successful results of the pilot program.



### **Recommendations**

Future marketing efforts should be centralized to reach more people in less time and to give the brokers more time to sell specific services to the customers directly. These methods should include:

- Distributing flyers which describe the information technology services to community centers, stores, schools, and other meeting places
- Placing print advertisements in local newspapers and publications

### **Specialization**

#### **Lessons learned**

In the pilot program, brokers single-handedly served all market segments—housewives, students, farmers, professionals, small businesses, organizations, and institutions—in their territory.

While the broker provided services to all segments, the pilot program showed that brokers naturally had a greater affinity and ability to assist certain customer segments. This affinity came about as a result of the broker's background and skills, and the needs of his or her customers. For example, small business owners often wanted the broker to set up Web sites, while housewives were more likely to want Internet searches about artisanship.

#### **Recommendations**

Specialization improves the effectiveness of the brokers in two ways:

- Brokers can specialize in providing services to the market segment with which they have the greatest affinity. As a result, sales will increase.
- Brokers can choose what services to personally provide—based upon the market needs and their own skills—verses what services other brokers can do most efficiently. As a result, profitability will increase because all brokers are able to work most effectively.

To make it possible for the brokers to specialize, a system of commission sharing between brokers would be established and a time would be set each week for the brokers to meet at the telecenter to pool customer requests and divide them up according to the brokers' expertise and specialization.

### **Working with Telecenters**

#### **Lessons learned**

During the pilot program, the brokers made sales calls during daytime hours and fulfilled customer's requests at the telecenters at other times. The hours the telecenters operated were often during the times the brokers found to be most productive for making sales calls. This presented a challenge for the brokers to be able to fulfill the customer's requests in a timely manner.



### **Recommendations**

Working as a team is beneficial for both the telecenter operators and the brokers. As a result, the needs of both—and the needs of the customers— can be meet.

Establishing a schedule of additional times each week when the telecenters are available to the brokers will have several significant benefits:

- The brokers will have enough time to fulfill their customers requests
- The telecenters will receive additional commissions
- The customers will be pleased with the increased efficiency and quality in fulfilling their requests
- The Information Broker Concept will be able to grow and provide more services
- The telecenters will experience increased customer traffic as a result of the new community awareness and desire for services which the Information Broker Concept creates

The pilot program in Costa Rica in 2001 was highly successful in determining the demand for information services, assessing the ongoing sustainability of the program, and identifying the most popular and in-demand information technology services to provide. In addition, the pilot program provided the basis for expansion of the Information Broker Concept into other locations and countries.



## 4. Information Broker Recipe

Based on the results of the Information Broker Program pilot, HP has developed a “recipe” to be used in future implementations of the concept.

Serves: 1 rural community of approximately 5000 people

Ingredients:

- 1 well managed telecenter with reliable connectivity to Internet
- 1 project manager to initiate project
- 8 local entrepreneurs
- 8 HP Jornadas
- 8 HP digital cameras
- 1 HP All In One device (in telecenter)
- 1 HP photo printing device
- Optional: a mobile photo printer to be carried by information brokers

Add:

- Applied sales/marketing and technical training
- Initial nominal salary paid monthly, to get brokers started while building a client base





## 5. Future Opportunities

Many opportunities exist to use the lessons learned in the pilot program to expand the Information Broker Concept to other locations and other situations. These opportunities for future expansion including the following:

### **Technology opportunities**

There are many benefits to be obtained from incorporating technological improvements into future implementation of the Information Broker Concept. These include the following:

- Wireless connection to a central hub would make possible a more widely distributed broker workforce, reduce the time spent traveling, and substantially increase efficiency
- Automating more of the work of the brokers, through the use of additional applications and tools, would also improve efficiency and allow more time for the brokers to sell the information technology services

### **Timing opportunities**

The initial pilot program was very effective in gauging community reaction and in determining which services were most frequently requested. Another pilot program, spanning a longer time period, would provide many opportunities to expand and solidify the data regarding the financial and economic impact the program can have on a community. A new pilot program could measure and quantify the true service run rate and the percentage of the community that can be expected to use the service regularly.

### **Structure opportunities**

In a future pilot program, there would be opportunities to incorporate flexibility into the structure of the program. For example, pricing may be adjusted based on the following:

- Value of the service to the customer
- Business verses home customers (charge more to business customers)
- The customer's distance from the telecenter (charge more for longer distances)



## 6. Next Steps

The future is bright for the Information Broker Concept. The people of developing nations need and want information technology to help them grow their businesses, learn more, and communicate more easily.

The people of San Joaquín de Cutris and San Marcos de Tarrazú in Costa Rica were enthusiastic about the services and wanted more. The next step is to expand the program so more locations can experience the benefits that San Joaquín de Cutris and San Marcos de Tarrazú enjoyed.

To bring information technology to the people of other developing nations, HP would like to partner with other organizations to customize the Information Broker Concept for the specific needs of the organizations and locations. Ideal partners are government organizations, non-government organizations (NGOs), telecenter operators, and corporations.

HP is dedicated to improving opportunities of all people in the world to access information. To that end, HP can work with the partners to customize the Information Broker Concept for their own purposes, and help ensure its success.

Together, we can provide a low cost, efficient, information technology service for people in developing nations around the world.

To learn more about how HP can help you develop the Information Broker Concept in your location, go to <http://www.hp.com/e-inclusion/en/contact/> or send an e-mail message to [scott\\_bossinger@hp.com](mailto:scott_bossinger@hp.com).



## Appendix

### A. Overview of e-Inclusion Solutions

Working with a range of local and global partners, HP is developing and delivering sustainable information solutions targeted at the four billion people with very low incomes in the developing world. e-Inclusion's mission is to close the gap between technology-empowered communities and technology-excluded communities of the world by making it profitable to do so. In concert with other innovative HP efforts such as digital villages and e-government, e-Inclusion Solutions is determined to invent new solutions that will increase revenues for HP's current lines of business while promoting economic development in emerging markets.

HP e-Inclusion is committed to:

- **Invent:** We will invent, pilot, and deliver innovative IT solutions and business models that create value in underserved markets.
- **Evolve:** We will evolve HP's approach to market-building by leveraging the full range of HP's technology, scale, local presence and brand assets.
- **Educate:** We will partner with other HP business units to help them extend their business reach by providing expertise in these markets.

HP's e-Inclusion strives to develop new, sustainable ways to create and share value. For example, if the incomes of the world's poor (defined as less than \$2 per day) were increased by \$1 per day, this would account for over \$1 trillion in economic growth per year. Opportunities for wealth creation through information services are many and varied.

Types of information that can help poor people improve economic standing are:

**Agriculture:** Just over half the people in the world derive their primary income from farming. Agriculture has a large information services component, including crop selection, choice and procurement of supplies, weather information, risk management and crop price information.

**Education and health care:** Expenditures on education and health care in developing nations (largely public sector) were over \$300 billion last year. Both education and health care have a large information services component. With better access to information, educators and health care providers could apply the latest techniques and knowledge, thereby improving the quality of education and health care in the region.

**Financial services:** The poor have historically had little or no access to financial services, including credit, savings and risk-management products. The Internet enables advances in this area through its low transaction costs, product bundling opportunities, and extreme reach. Through increased access to financial services, economically disadvantaged people will have the opportunity to build wealth.



## B. Key Personnel Responsibilities

The key personnel in the program are the information brokers, who sell the service and perform the information gathering or other technical service. In addition to the brokers, the program requires the involvement of a local program manager, a business consultant, and one or more group leaders.

Responsibilities are:

### **Local Program Manager**

- Serve as the overall owner of the program's success in the region
- Determine the structure of the project and documentation
- Recruit, contract, train and oversee high quality (motivated, respected, etc.) information brokers and business consultant
- Define and document the services that are offered to the community
- Together with the business consultant, provide a forecast of service sales
- Together with the information brokers, implement the marketing plan in the communities served
- Develop short weekly status reports (sales vs. forecast, current issues and expected resolution)
- Conduct customer/community satisfaction surveys
- Communicate program status to HP and HP's business partner

### **Business Consultant**

- Develop a complete marketing plan (market opportunity measurement, segmentation, target selection, communication plan, channel strategy, product definition, pricing strategy, etc.)
- Develop a comprehensive sales incentive plan (commissions and other incentives for brokers and team leaders)
- Provide sales training to the information brokers (relationship building, lead generation, product positioning, closing a sale)
- Assist the local program manager as needed

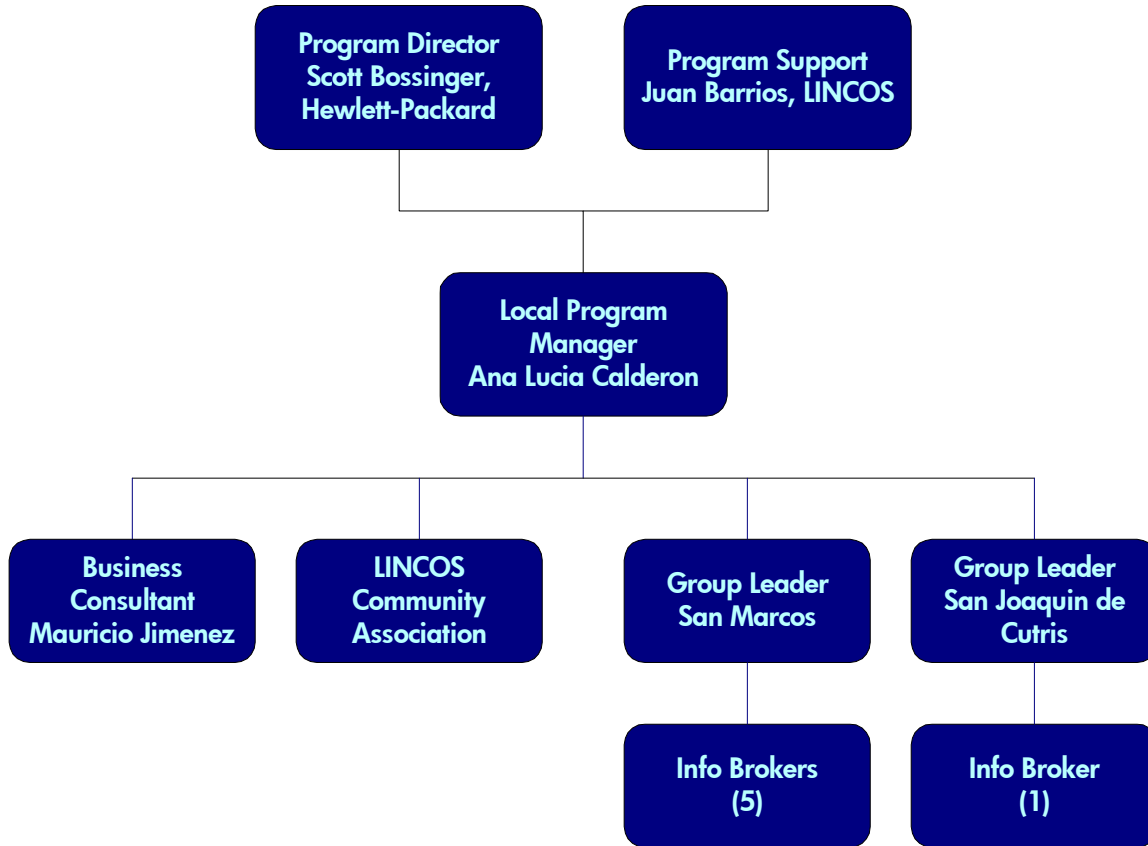
### **Group Leader**

The group leader is an information broker with the following additional responsibilities:

- Track weekly sales for the group of brokers and report to program manager
- Collect revenue from brokers and deliver to program manager

### C. Pilot Structure Diagram

The diagram below shows the structure as it was applied in the Costa Rican pilot of the program.



## D. Information Broker Training Topics

### Program Description

- Objectives of the project
- Organization's structure and role definition
- Services and applications available

### Operational Procedures

- Organizational strategies, such as division of the geographic area
- Hierarchy, supervision, equipment control (Jornadas, cameras), per diem and transportation
- Weekly and monthly reports
- Group work and communication strategies

### Sales and Marketing

- Sales techniques
- Image: verbal expression, personal presentation (uniform), etc.
- Sales goal and additional incentives systems
- Client segmentation and strategies for interacting with each segment: students, housewives, farmers, organizations, traders, adolescents, boys and girls, the elderly, institutions, etc.
- Marketing and promotion strategy

### IT Tools

- Electronic messages, use of the Internet for searches, printing, audio and images, e-commerce
- Installation of ActiveSync software on PC
- Jornada and accompanying digital camera setup and use