# A Community Connection

## Summary

The goal of the Lawrence Freenet project is to provide true wireless broadband to everyone, everywhere, all of the time, free. The organization began its journey toward this goal by providing free access to low income families. This free access is supported by charging a fee to those who can afford the service. Using this financing method, Freenet has been able to provide broadband Internet services to hundreds of Lawrence residents - free of charge.

With the launch of the "Lifeline" service by the World Company, the Lawrence Freenet Project sees a future where low income families are provided service through an approach that combines the generosity of existing broadband providers with services from public interest groups like ours. As a result, the Lawrence Freenet Project can now begin to dedicate its resources to widening its free service to other elements of the community. With the Freenet-Kids initiative, Freenet seeks to expand free service to every child in the Lawrence community who is under the age of 18.

# **About Freenet**

Lawrence Freenet, Inc. is part of the Freenet project, a partnership dedicated to the idea that digital information should be available to everyone, everywhere, regardless of income.

The Freenet project is composed of partnerships between municipal governments, non-profit organizations and for-profit service providers.

Municipal	Non-Profit	For-Profit
City of Lawrence	Lawrence Freenet, Inc.	Westar Energy
City of North Newton	Lawrence Housing Authority	Community Wireless Communications Co.

Additional information about Lawrence Freenet, Inc. and the Freenet project is presented in Section 8.

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As part of this proposal, Lawrence Freenet will provide over \$12.28 Million worth of infrastructure and services to the City of Lawrence - free of charge. The Lawrence Freenet project is also offering to provide 375 new laptops each year to disadvantaged students.

Based on extensive discussions with administrators, teachers, students and members of the community, Freenet has identified several key advantages to the Freenet-Kids proposal.



- 1. Improved Student Life Modern students spend more and more of their time working with computers and the Internet. This valuable tool allows the students to better understand themselves and the world they live in. Providing Internet access to students everywhere within the community will give Lawrence students an advantage as they step into the digital age.
- 2. Bringing the Internet to Kids Freenet already has contracts with thousands of apartments across the City of Lawrence allowing the non-profit organization to build wireless coverage where the kids live.
- **3.** Job Creation The Freenet-Kids proposal will create 15 high quality tech jobs right here in Lawrence, Kansas.
- **4.** Security Modern wireless security standards make it painless to deliver high quality broadband Internet in a safe and secure manner. Children will have all of the benefits of state of the art encryption and filtering technologies to keep their information safe.
- **5. Police Access** As part of the proposal, the police department will be able to securely access the Lawrence Freenet network to access databases, file reports and enforce the law.
- 6. Staff Access City staff will have access to the Freenet network in order to communicate with the city's existing IT infrastructure. From filing reports to sending e-mail, city workers will be able to perform their jobs more effectively in the field.
- 7. Library Access To better serve the community, Lawrence Freenet will open up access to the Library's Information Technology resources to any member of the community who has a WiFi enabled device. From searching databases to renewing a book, every citizen in Lawrence will be able to access the public library, free of charge.
- 8. Underground Infrastructure To serve 10,000 children within the community, Lawrence Freenet will need to install approximately 25 miles of underground cable throughout the community. The organization is proposing that the City of Lawrence take ownership of half of this cable (\$1.9 Million asset) for its Intelligent Traffic System and other city projects.
- **9. Emergency Broadcast** Through the implementation of its HAMMER Emergency Broadcast system, Lawrence Freenet will make it possible for emergency information to be transmitted to any Lawrence Freenet member who is currently online.
- **10. KanREN Access** As part of the proposed infrastructure project, Lawrence Freenet will donate a pair of fiber-optic cables to connect KanREN to the University of Kansas campus, saving the non-profit organization \$3,000/Mo.



## A Revenue Neutral Economic Development Initiative to Provide Free Broadband Internet For Every Child

January 23, 2008

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## **1. Executive Summary**

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Based on extensive discussions with administrators, teachers, students and members of the community, Freenet has identified several key advantages to the Freenet-Kids proposal.

1. Improved Student Life – Modern students spend more and more of their time working with computers and the Internet. This valuable tool allows the students to better understand themselves and the world they live in. Providing Internet access to students everywhere



within the community will give Lawrence students an advantage as they step into the digital age.

- 2. Open Standards By using WiFi to deliver broadband service to Lawrence children, the City will make it possible for kids to access the Internet via any WiFi enabled device. This means that families won't need expensive modems and routers to get online, their laptop or desktop will have everything they need.
- **3.** Bringing the Internet to Kids Freenet already has contracts with thousands of apartments across the City of Lawrence allowing the non-profit organization to build wireless coverage where the kids live.
- **4. Mobility** Kids will have access to the Internet from anywhere within the community. Whether they are studying at school, playing in the park or studying at home, their WiFi enabled laptop, PDA or mobile phone will enable them to stay in touch and access information wherever they are.
- **5. Security** Modern wireless security standards make it painless to deliver high quality broadband Internet in a safe and secure manner. Children will have all of the benefits of state of the art encryption and filtering technologies to keep their information safe.
- 6. Police Access As part of the proposal, the police department will be able to securely access the Lawrence Freenet network to access databases, file reports and enforce the law.
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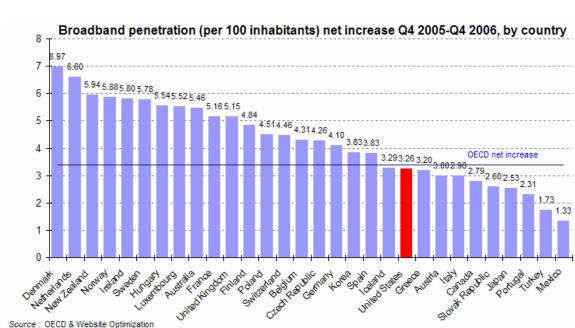
Source : OECD & Website Optimization

Further details about these advantages and services are outlined in section 4.

# 2. Broadband Access – A Community Challenge

"The world is in the midst of a technology revolution. Broadband Internet has become central to the needs of our families, the health of our economy, and the vitality of our communities. But Kansas is falling behind other states, and the United States is falling behind other countries in the deployment of broadband Internet connectivity.

Kansas is a rural state with a population of 2.7 million people. That translates into about 33 people per square mile as compared to 79.6 people per square mile in the United States. In order to sustain and develop our state in the areas of health, education and economy, we need to ensure that every part of the state has outstanding broadband Internet access.



Treating high performance connectivity as another infrastructure element, similar to power, water or transportation, creates the proper context for discussion about broadband access."

Figure 1: US ranks 21st in broadband deployment.

Access to broadband Internet service is as important as access to power, water or transportation. Broadband Internet access should be looked at as infrastructure that supports the local economy, ensuring quality education, equal opportunity for employment and open markets for products.

Of these benefits, one stands out as far more important than the others, education. Without a broadband Internet connection at home, modern students are at a disadvantage to their Internet connected peers.

<sup>&</sup>lt;sup>1</sup> Kansas Office of Educational Evaluation & Innovation, "State Library of Kansas Broadband Summit Summary Report", November, 2, 2007.



## 2.1. Home Access

"Having a home computer has been associated with higher test scores in reading, even after controlling for family income, and other factors related to reading test scores. Still other findings indicate that participating in a networked community of learners improves educational outcomes for at-risk children."<sup>2</sup>

Students that come from under-privileged homes aren't part of these networked communities. "Only 37 percent of [children] from families with incomes less than \$20,000 use computers at home, compared to 88 percent of those living in families with annual incomes over \$75,000."

Students from homes with parents who have a lower level of education are also unlikely to use an Internet connected computer at home. "Approximately 82 percent of students from households where no parent has graduated from high school use computers and 37 percent of them use the Internet. In contrast, approximately 95 percent of students from households where at least one parent attended graduate school use computers and 73 percent of them use the Internet."<sup>3</sup>

## 2.2. Digital Divide

At this point in human history, the digital divide has become almost universally acknowledged. "**There is a 'digital divide'**. Computer and Internet use are divided along demographic and socioeconomic lines. Use of both technologies is higher among Whites than among Blacks and Hispanics."<sup>4</sup> Students living with more highly educated parents are more likely to use these technologies than those living with less well educated parents, and those living in households with higher family incomes are more likely to use computers and the Internet than those living in lower income households." – (Emphasis by Original Author)

This digital divide is not out there in poor urban areas or restricted to rural communities, rather it exists right here in Lawrence. It is hard to think of a stronger endorsement of this idea than the recent groundbreaking launch of the "Lifeline" service by Sunflower Broadband. The problem must indeed be dire when large for-profit companies begin to launch free community services.

## 2.3. Racial Equality

One key factor in the availability of the Internet in a home is ethnicity. Among children, slightly more than half of all black and latino children have access to a home computer, and about 40 percent have Internet access at home. By comparison, 85.5 percent of white children have home computer access, and 77.4 percent can use the Internet at home.

"We are clearly not all a nation online," says Robert Fairlie, an associate professor of economics at UCSC, "Twenty million children in the United States, or 26 percent of children, have no computer access at home, and race is a key part of who's online and who isn't."<sup>5</sup>

<sup>&</sup>lt;sup>2</sup> Jackson, Linda A.; Eye, Alexander von; Biocca, Frank; Barbatsis, Gretchen; Zhao, Yong; Fitzgerald, Hiram "Does Home Internet Use Influence the Academic Performance of Low-Income Children?", Developmental Psychology, Volume 42, No. 3, 2006.

<sup>&</sup>lt;sup>3</sup> DeBell, Matthew; Chapman, Chris, "Computer and Internet Use By Students in 2003", U.S Department of Education, September 2006.



Our community does a disservice to its minority members, propagating inequality, impeding access to education and reducing opportunities for the entire community by continuing to restrict Internet access to families with high levels of education and high incomes

## 2.4. Educational Use

The Internet is one of the most powerful educational tools ever conceived. With instant access to an ocean of information, broadband Internet connected students can research, interact and learn faster and more comprehensively than ever before. Students without an Internet connection score lower on standardized tests, have lower grade point averages and are less likely to graduate from high school

Internet access helps at every stage of development including grade school where interactive websites help students "become more curious and feel more confident"<sup>4</sup>.

During middle school years, "home Internet use appears to empower students and reengage them in learning at an age when their academic achievement traditionally drops."<sup>4</sup>

In high school, "teenagers who have access to home computers are 6 to 8 percentage points more likely to graduate from high school than teens who lack access to a home computer."<sup>5</sup>

# 3. Solution Overview

Freenet provides true wireless broadband service throughout the City of Lawrence and beyond. The organization is proposing a working relationship with the City of Lawrence that will allow children within the community to access the Internet anywhere, anytime, free.

The proposed service will begin beta testing in August of 2008 and, with parental permission, will be made available to any child in the community on August 1, 2009.

Students and members will be provided with a high speed Internet connection, phone support and on-site support. Students will also be provided, as much as is technically possible, with a safe environment in which to surf the web.

## 3.1. Child Safety

One of the most important aspects of the Freenet-Kids initiative is the commitment by the Freenet staff to provide a network environment that conforms to community standards. Children are curious and their curiosity has been known to lead them astray. By providing a network that is filtered by network engineers, Lawrence Freenet will help to ensure that access to online gambling and other inappropriate materials is restricted.

<sup>&</sup>lt;sup>4</sup> Jackson, Linda "Children and the Internet It's fun, but does it make you smarter?", Monitor on Psychology, Volume 38, No. 10, November 2007.

<sup>&</sup>lt;sup>5</sup> Fairlie, Robert "The Effects of Home Computers on School Enrollment", Economics of Education Review, Volume 24, Issue. 5, October, 2004.



Though the Lawrence Freenet vendors and staff are experts in network engineering and can implement a content filtering strategy, they do not represent the entire community. To ensure that the filtering policy selected conforms to community standards, the organization will invite local children's groups to help establish a filtering policy. Included in these groups will be:

- Lawrence Police Department
- **PTA**
- USD497
- City Attorney's Office
- Headquarters
- Bert Nash

- The Lawrence Education Association
- Juvenile Justice Authority
- Success by Six
- Douglas County Children's Development Association

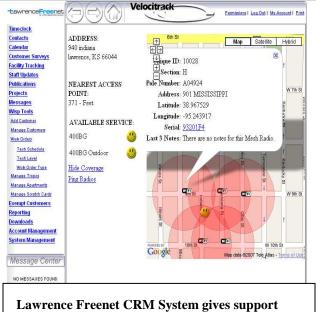
Freenet hopes to develop a policy that is broadly applicable by drawing from the expertise of a diverse group of secular community organizations. As part of the technical solution, the organization also plans to allow parents to add filtering rules for their children, allowing them flexibility and control over their child's online behavior.

## 3.2. Support

Lawrence Freenet makes use of cutting edge customer relations management (CRM) software to process customer requests and monitor quality of service.

This software gives customer service representatives the ability to access to realtime network statistics. Agents can obtain performance data on the nearest five access points from within the member's account, remotely access the member's modem, and if necessary dispatch a technician to remedy the issue.

Lawrence Freenet currently staffs customer service representatives from 9 a.m. until 7 p.m. seven days a week.



agents real time information.

Based on the current volume of customer service and technical support phone calls Freenet anticipates approximately 30,500 additional contacts being made within the first year of service. Lawrence Freenet will staff an additional 5 full time customer-service representatives to handle this call volume.

In addition, the organization will provide 5 full-time on-site support staff. These staff will be responsible for providing support for the Freenet-Kids network.

The Lawrence Freenet Project will also provide scheduled support at the Freenet offices on Saturdays.

#### 3.3. Network Throughput

The network that Lawrence Freenet has developed has been developed to deliver 1,024 Kbps of bi-directional data under nominal network load. This means that under normal usage (5-10 clients/wireless access point) the network is designed to provide approximately 1,024 Kbps of Internet TCP/IP traffic to each network user.

This said, the organization is constantly making improvements to the network to try and exceed this goal. In some areas, network access is much faster than this, and in some areas network throughput is slower. Over time the organization will continue to improve coverage, throughput and the quality of its service.

#### 3.3.1. Transport

The current Lawrence Freenet network makes use of a 300 Mbps wireless link operating between Lawrence, Kansas and the organization's City Center Square POP in downtown Kansas City. This link runs at 10% capacity and provides around 30Mbps of data to Freenet's members in the City of Lawrence. The link has a historic reliability of 99.99%. Redundant connectivity is provided via two circuits the organization leases from SBC.

To provide adequate data for the roughly 10,000 students, and 7,000 additional paid members the organization will lease a fiber-optic cable between Lawrence, Kansas, and downtown Kansas City, Missouri. Total capacity on this fiber-optic cable will be 1 Gbps, allowing the organization to increase network capacity by a factor of 3. The organization's existing 300 Mbps wireless link would then become the secondary, fail over, connection.

#### 3.3.2. Bandwidth

Bandwidth for Lawrence Freenet will be purchased from Cogent Communications. Based on current user data, the organization anticipates a need for 15 Kbps of backbone connectivity for each network user. This means that in order to serve both paying members and the students, the organization would purchase around 300 Mbps of bandwidth at the Kansas City demarcation point.

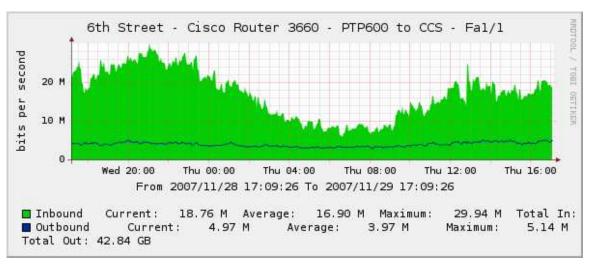


Figure 2: Aggregate data throughput for approximately 2,000 devices on the Freenet network



The demarcation point for this data will likely be the Bryant Network Operations Center (NOC) located at 1102 Grand Ave, where Freenet will lease space for the requisite switching. The organization already leases space in the City Center Square building which will continue to be used to house the backup link to Lawrence.

## 3.4. Wireless Coverage

Lawrence Freenet currently provides wireless broadband coverage over approximately 60% of the Lawrence community. This coverage encompasses the areas of the community that are most likely to host student housing, specifically large apartment complexes and other multi-family dwelling units.

#### 3.4.1. Improving Coverage

As part of its commitment to provide Universal Internet access in Lawrence, Freenet is constantly expanding its wireless coverage within the community. In the last year alone the organization's network has expanded from around 50 high power access points to well over 550.

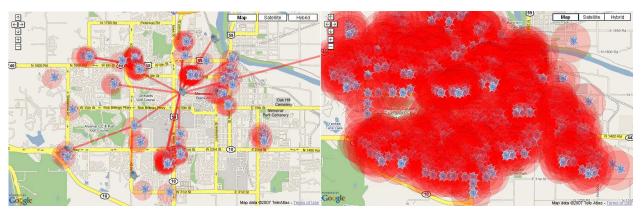


Figure 3: Coverage Expansion January-November 2007

Over the course of the next year the organization plans to increase this number even further by adding approximately 400 additional access points. These access points are being installed specifically to enable the organization to provide reliable high speed coverage for students. With radio costs of approximately \$2,100/radio this increase in coverage represents an investment of \$840,000 on the part of the organization.

Coupled with a large investment in underground fiber-optic cable (covered in Section Fiber-optic Cable 3.6.3 of this document), the organization will be capable of delivering high quality service to 95% of the Lawrence community.

What about the other 5%? The 5% of the community that will not be covered as part of the project are areas that do not have the required infrastructure to support a wireless network of this type. These areas include:

- Neighborhoods without utility poles or street lights.
- Interior of buildings made of unfriendly materials.



• Private property where owners do not wish to make the service available.

Members in these areas of the community will not be able to use a laptop computer to access the network directly, however, the organization will still able to provide broadband service via an outdoor CPE mounted on the side of the home. Outdoor CPE devices are discussed in greater detail in Section 3.5.

#### 3.4.2. Mobility

One of the key features that the Freenet network will bring to Lawrence is mobility. Students and members will have true broadband Internet access anywhere within the Lawrence community. Members can use the service at their home, at their jobs, while out and about on Massachusetts St. and even from the <u>passenger</u> seat of a moving car.



Figure 4: Mobility is a key demand of modern students.

With the advent of mobile computing devices like the iPhone, this will give students and members access to network resources, e-mail, as well as friends and family anywhere within the community.

#### 3.4.3. WiFi Standard

The Freenet network makes use of the 802.11g standard which means that members do not need to have a cable modem, or DSL modem to access the Internet. Members can access the web using any WiFi enabled device, including a laptop computer, an iPhone or a PDA.

The use of standards based technology means that members have a choice as to which devices they want to use and how they are going to use them.





Figure 5: WiFi is increasingly available in a variety of devices.

## 3.5. Customer Premise Equipment (CPE)

For a network user to get onto a traditional cable or DSL network they need to have a modem to translate the signal generated by the Internet Service Provider (ISP) into an Ethernet signal that can be understood by the computer.

To use the Freenet network, most members can simply use their computer's built in wireless card. These cards are rapidly becoming ubiquitous in electronic equipment; however, some desktop computers do not come with built in wireless adapters.

There are also cases where a member might live in a concrete basement, isolated residence or other location that is not conducive to providing wireless broadband service.

For these members, Freenet provides a CPE solution that translates the wireless signal generated by the WiFi network into an Ethernet signal that can be understood by the computer.

These devices are sold at cost (\$121) and have a high power wireless transmitter that enables them to provide service in locations where the wireless signal might be weak or degraded. These devices are fully supported by the organization and can be installed by a trained technician upon request from the member. The units can also be debugged and supported through the organization's customer relations management suite, making it easy to identify and correct problems for members in a short time frame.





Figure 6: Supported CPE Device - PePwave Surf

The organization also provides an outdoor solution, much like a satellite dish, that can bring the wireless signal into the home from a distant WiFi node. These outdoor units can provide quality service for users who are up to 1,000 ft. from the nearest WiFi access point.



Figure 7: Outdoor CPE

As part of its commitment to providing quality service to the community, Freenet is currently working on a less expensive version of each of these CPE devices which will be available in the spring of 2008. These devices are based on open source technology and will be available to members at the organization's wholesale cost. One advantage to using official CPE devices is that they are fully supported by the organization's support staff and installation technicians. This means that any time a device fails or breaks the organization replaces them free of charge.



## 3.6. Infrastructure

To provide reliable coverage for the community, Freenet plans to make a significant investment in expanding and upgrading its already extensive infrastructure. Key improvements include:

- Expanding coverage within apartment complexes
- Covering areas with low population density
- Installing a fiber-optic backbone
- Installing additional access points

#### 3.6.1. Expanding Apartment Complex Coverage

To effectively serve students and members requires the installation of wireless equipment at the apartment complexes in which many residents live. To make these installations, the organization must have an agreement with the complex owner allowing them to install the equipment, use complex power and perform regular maintenance.

Over the past two years, Freenet has negotiated agreements with over 50 apartment complexes in the Lawrence area, including complexes managed by Meadowbrooke, Midwest Property Management, Nolan Reality, Gage Management and many others.

As part of any agreement with the City of Lawrence, Freenet would commit to further expanding its apartment complex agreements to include any complex in which a student or member wants coverage.

Freenet's agreements with apartment complexes are structured to make it easy for complex owners and managers to say yes. Installations are performed free of charge and are done in a professional and well-planned manner.

#### 3.6.2. Low Density Housing

As an organization dedicated to bringing the Internet to everyone in the community, regardless of income, Freenet's original network rollout skipped areas where housing density was too low to justify the expense of installing coverage. For example, coverage was not deployed in the Alvamar Country Club neighborhood.





Figure 8: Freenet coverage in Alvamar neighborhood.

As part of the organization's commitment to providing 95% coverage throughout the City of Lawrence, coverage will be deployed in neighborhoods that were not deployed during the initial network rollout.

#### 3.6.3. Fiber-optic Cable

Freenet is the first and only municipal WiFi network to be deployed entirely on wireless technology. The current network makes use of wireless links at every layer of the network, from its primary connection to the internet (a 37 mile link) to the tower interconnects (2 mile links) to end user service (200ft links).

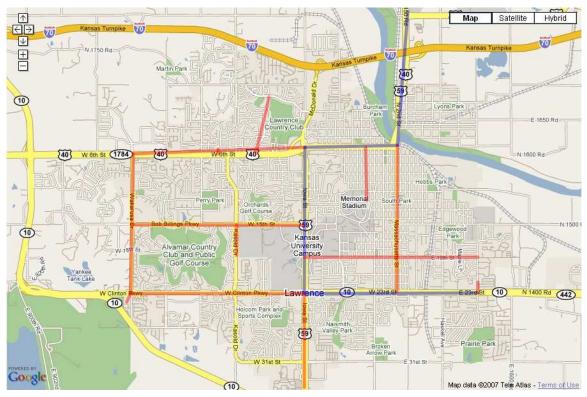
The infrastructure that the organization is using has significant redundancy built in. At each and every layer of the service network user traffic has multiple potential routes to the Internet.

What that means is that the organization has been able to construct a reliable service using wireless connections.

Though this approach has worked well for the organization to date, the influx of tens of thousands of high-demand users will flood the network with more traffic than the existing all-wireless infrastructure can support.

To avoid this problem, the organization plans to make a significant investment in underground fiber-optic cable. Lawrence Freenet is planning on installing approximately 25.6 miles of fiber within Lawrence. This cable will act as an enhanced backbone network connecting the organization's existing POPs and extending 100Mbps backhaul connections to approximately 83 mesh gateways throughout the City of Lawrence.





**Figure 9: Proposed Fiber Routes** 

An interactive version of this map is available at:

http://www.lawrencefreenet.org/fiber\_plan\_col.html

The organization now has firm bids on this portion of the project from a reputable contractor which total \$1,963,500.

#### 3.6.4. Access Points – Mesh Networking

To provide user level coverage, the organization uses 400mW mesh radio equipment connected to light poles, roof tops, traffic control signals and apartment buildings. These radios are distributed throughout the community and make use of mesh networking protocols to connect subscribers to the Internet.

Mesh networking is a recent innovation in wireless technology, allowing organizations like Lawrence Freenet to build municipal scale wireless networks.

In a mesh networking environment each radio acts as a potential Internet gateway for every other radio in the vicinity. This means that even though an individual radio (node) is not connected to the Internet directly, it can still relay data to the Internet by sending it to a neighboring node. That neighboring node is either directly connected to the Internet and able to send the traffic, or it relays the data to another neighboring node that is. Confused? Have a look at the following diagram.



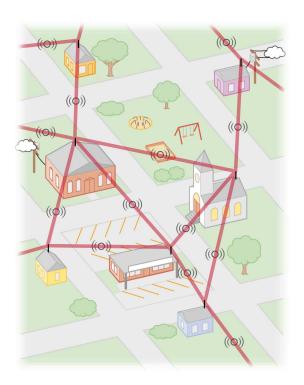


Figure 10: Mesh Networking

The overall result is a network in which only one out of every five nodes needs to be connected directly to the Internet. This significantly reduces the cost of deploying the coverage. In addition, the redundant nature of the technology means that a failure of any single node will not affect its neighbors who simply route the traffic around the outage.

To increase coverage density in Lawrence to the point that it can support students and members will require the organization to increase the number of radios from 550 to around 950. This includes significant density increases in areas where historic records show high demand such as Tennessee St. and Emory Drive. With radio costs of approximately \$2,100/radio this increase in coverage represents an investment of \$820,000 on the part of the organization.

#### 3.7. Security

One of the most common misconceptions that the public has is that wireless broadband is inherently insecure. This is largely due to mistakes that were made related to cryptography early on in the development of wireless broadband technologies.

With the advent of new cryptography standards and standards based authentication protocols, wireless networks can provide a level of security that is equivalent, and can far exceed, traditional cable or DSL networks.

The proposed security strategy for deploying wireless technologies for students within Lawrence is based on the following imperatives:

Freenet and/or Freenet systems should not have access to any student information.



All authentication information will be encrypted at the application layer prior to transmission over the network.

Students will have the choice of using secure or open wireless networks.

#### 3.7.1. Secure Network

The proposed model for security is WPA2 Enterprise (802.1x) – the highest level of wireless encryption that is currently available. Under this model students use their username and password as credentials for their authentication. These accounts will be created and hosted by Lawrence Freenet on a secure LDAP server. Parents will be able to obtain accounts for their children through an application process that will be defined as the project progresses.

Profile Name: Freenet-Secure d General Settings	Security Setting	ļs		
Security Settings TTLS'User TTLS Server	C Personal Security	6	Enterprise Security	
TLS Server	Network Authentication:	WPA - Er	terprise 💌	
	Data Encryption:	AES · CC	MP 💌	
	🕅 Enable 802.1x	6		
	Authentication Type: _ Step 1 of 2 : TTLS User—	TTLS	<b>•</b>	<u>C</u> isco Optio
	Authentication Protocol:	PAP		•
	User Credentials:	Use th	e following	•
	User Name:		joshua.w.montgomer	y
	Domain:			
	Password:		*******	
	Confirm Pase	sword:	REPRESENT	
			,	
	Roaming Identity:	MIDDI	.EBROW\joshua.montg	omery
		1.11.7.72		101.50 <b>5</b> 1
•				

Figure 11: Enterprise Security Example

The wireless radio encrypts the username and password through a secure tunneled connection that is proxied to a RADIUS server.

Assuming the user's credentials are verified by the RADIUS server, the wireless radio then encrypts the data between the user and the radio using an AES encryption algorithm. This algorithm represents the state of the art in modern cryptography and is commonly used to secure financial information, information transfers, and is used by the CIA.

#### 3.7.2. Open Network

The above detailed model makes use of WPA2-Enterprise, an encryption algorithm supported by a wide range of wireless devices. Unfortunately, many smaller wireless devices such as hand held computers and WiFi enabled phones do not have the ability to support this level of encryption.

For devices that are not capable of using WPA-Enterprise, an open network would be deployed. This network would function in much the same way as the current "Freenet" network that covers 60% of the community.



When connecting to this network, student's browsers would be re-directed to a secure gateway website. Traffic between the student's computer and the gateway is secured using a 256-bit SSL key exchange.

Students would then enter their username and password. The secure gateway would open a connection to a RADIUS server using the same exchange described in Section 3.7.1. Once the RADIUS server has verified that the user is indeed a student a port on the security gateway would open up and allow traffic from the student's computer or hand-held device out onto the Internet.

## 3.8. Equipment

At the current time, many children in Lawrence live in households that do not have a computer. Without a computer, these students will not be able to access the Freenet-Kids network. In order to provide these students with the educational tools they need, Freenet proposed that the City of Lawrence work in concert with the the Lazarus Project, Inc. to expand the reuse of legacy public equipment here in Lawrence Kansas.

Freenet has given away dozens of computers to qualified families over the course of its first two years of operations. Most of these computers were originally donated by the City of Lawrence, the University of Kansas or the Lazarus Project. These organizations can help reduce toxic waste and promote a community with universal Internet access by formalizing the recycling process and making recycled computers available to families throughout the community.

Freenet is currently working with the Lazarus Project to expand its computer refurbishing effort and will commit to providing 2,000 computers to students as part of this project.

As part of its financial commitment to the project, Freenet will also provide 375 new laptops to qualified children within the community each year.

# 4. Municipal Involvement

The original Freenet project required very little involvement on the part of the City of Lawrence. The City provided access to the right-of-way and certain city facilities and Freenet committed to providing free service for low income families.

With its core network established, Freenet is seeking very little additional involvement from the City of Lawrence. Our goal, as always, is to provide the most benefits to the community with the least investment. That is why Lawrence Freenet is not seeking a contract for paid service, or a subsidy from the municipal government; rather, the organization is seeking a loan guarantee that will allow a local lender to provide \$4.9M in financing over the next 18 month.

## 4.1. Financial Proposal

To expand its coverage, increase capacity and improve reliability, the Freenet Project will invest \$5.45M in network improvements. These improvements include:

- 1. Installation of a fiber-optic backbone
- 2. Expansion of WiFi radio coverage



3. Installation of emergency power systems

To fund these improvements, Lawrence Freenet will borrow \$4.9M from a local lending institution. The remaining \$550,000 will come from Freenet's paying members.

This loan yields an exciting opportunity to fund the Freenet-Kids initiative in a manner that is revenue neutral to the City of Lawrence. All that is needed is a loan guarantee. This guarantee will enable the organization to borrow the funds at a significantly lower interest rate and over a longer period of time than would be possible otherwise. This frees up funds to provide universal access to the children of Lawrence.

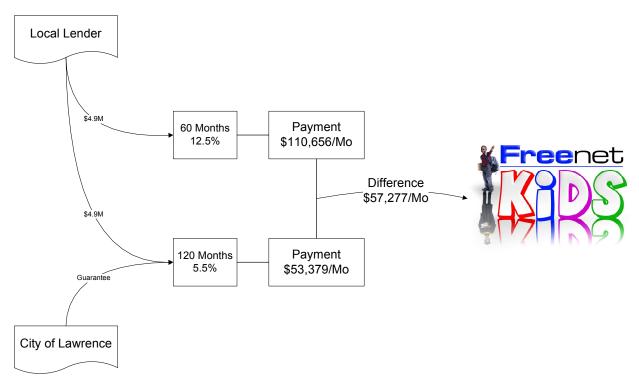


Figure 12: The City's guarantee frees up funds sufficient to provide service to every child in Lawrence

The proposed loan would be guaranteed by both Lawrence Freenet and Community Wireless Communications Co. the project's primary service provider. As an additional indicator of good faith Joshua Montgomery, the project's founder, has volunteered to guarantee the note ahead of the City of Lawrence.

<b>Order of Guarantors</b>		
Lawrence Freenet, Inc.		
Community Wireless Communications Co.		
Joshua Montgomery (Personally)		
The City of Lawrence		

In addition to providing paper guarantees, Lawrence Freenet and CWC have agreed to pledge the following collateral to the City of Lawrence.



Collateral Asset	Value
Existing Municipal WiFi Network	\$2,400,000
Underground Fiber-Optic Cable	\$1,900,000
Additional Network Infrastructure (Radio Equip.)	\$820,000
Total Collateral	\$5,120,000

#### 4.1.1. Precedents

There are several precedents for municipal involvement in economic and social development projects of this type.

#### 4.1.1.1. Existing Economic Development Projects

In May of 2004, the City of Lawrence approved a conservation easement for Orchard's Corners Golf Course, in which the City of Lawrence in conjunction with the Orchards benefit district steering committee was able to provide \$280,000 in order to obtain a conservation easement on the property.

This action benefitted 50 families in a small neighborhood by keeping property values at a premium, improving drainage and guaranteeing that the land would remain green space for the foreseeable future.

Though Lawrence Freenet is seeking larger guarantees, the organization will benefit a much larger portion of the community, providing broadband services for up to 10,000 school age children.

This is one of many examples of how city government can get creative in order to finance a project that benefits the entire community.

#### 4.1.1.2. Municipal Wireless

There are many municipalities throughout the country that are providing significant funds for municipal wireless projects. These communities see that their local governments, utilities, law enforcement agencies and citizens can benefit from universal Internet access.

Large scale projects are underway in Kansas communities like Olathe, Lenexa, Overland Park and even tiny Osage City. Around the country communities like Oklahoma City, Minneapolis and Corpus Christi are making large investments in these technologies.

In many of these communities the municipal government has taken the roll of financial partner by either purchasing the network outright or becoming an anchor tenant and guaranteeing a certain level of payment to the network operators.

By providing loan guarantees to Lawrence Freenet the City of Lawrence benefits the community by making free service available to school age children. At the same time the city benefits itself by ensuring connectivity for traffic control, providing universal access to the local library and providing service for city workers and law enforcement.



Existing municipal wireless networks have largely been supported by the municipalities out of general revenue. The approach that Freenet is proposing, where the non-profit organization pays off the loan, is new and novel. This approach makes the proposal revenue neutral to the municipality, while still providing the city with all of the benefits a municipal wireless network can bring to bear.

Examples of other municipal WiFi networks and their costs to the taxpayers appear below:

#### St. Cloud, FL

Nodes: 345 Building Cost: \$1.9 million Maintenance Cost: \$276,000 per year Unique Devices Registered: 11,719 Municipal Cost per node: about \$7,100

#### Chaska, MN

Nodes: 250 Building Cost: \$1.3 million Labor was donated Subscribers: 2,020 Municipal Cost per node: about \$5,200 Moorhead, MN

Nodes: 352 Building Cost: \$2.2 million Municipal Cost per node: about \$6,250

#### Lawrence, KS Nodes: 550 Building Cost: \$2.4 million Subscribers: 1,200 Municipal Cost per node: **\$0**

## 4.2. Alternative Financing Methods

The preferred method for financing the Freenet-Kids project is through a loan secured by Lawrence Freenet and guaranteed by Community Wireless and Joshua Montgomery. The City of Lawrence would then take the fourth guarantee position. There is a potential issue, however, in that securing financing using this method may not fit within existing statutory guidelines. If it is determined that Freenet's preferred method of financing the project does not fit within existing economic development financing models, Freenet would propose the following.

#### 4.2.1. Municipal Bond Offering

One alternative method of financing the project would be to issue a municipal bond offering with Freenet as the beneficiary. Freenet would then pledge the existing network and the first \$53,000 in monthly revenue to the City of Lawrence. The City would then use these funds to pay off the bonds over a 10 year period.



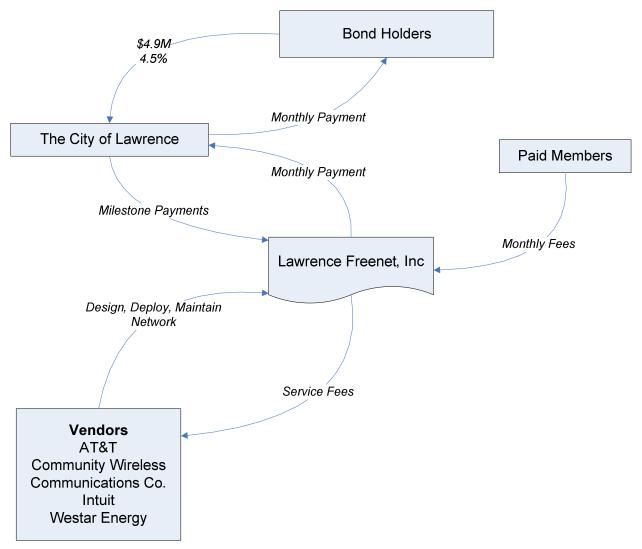


Figure 13: Alternative method of financing Freenet-Kids

This approach has the benefit that funds for the project could be obtained at an even lower interest rate and the resulting bonds would likely be tax exempt.

#### 4.2.2. Other Traditional Financing Mechanism

Funding for economic development projects can take many forms. Since City staff has significant expertise in building economic development packages for desirable local businesses, Freenet would be very interested in working with the City of Lawrence to identify a financing mechanism that makes the project possible, while still acting in the best interest of the public.

#### 4.3. Service Provider

As a non-profit organization dedicated to community service, Lawrence Freenet, Inc. is not well suited to developing and deploying technology using internal assets. Rather than become a tech company, the organization has decided to focus on low-income fulfillment, fund raising, strategic planning and interfacing with both the City of Lawrence and Westar Energy.



With this in mind, Freenet will implement the planned network improvements with its existing service provider, Community Wireless Communications Co. (CWC) CWC was selected as Freenet's choice of vendor due to lack of interest from other parties. Though Freenet approached local service providers early in the project no local service provider had any interest in partnering to provide the financing necessary to get the initial network installed. CWC approached other local service providers in July of 2007 to inquire about partnering to better serve Lawrence. No local service provider had any interest in a partnership. In addition to seeking a local partner, Freenet took out a national advertisement in the Washington Post on July, 10 2006 to solicit other interested parties, however the organization received no letters of interest. This solicitation appears as Appendix B. To date CWC has invested \$2.4M in the project, taking a lion's share of the financial risk.

Lawrence Freenet sees no need to pursue another vendor for this phase of the project. CWC has demonstrated extensive expertise with deploying infrastructure and currently provides support, maintenance and fulfillment services on the behalf of the non-profit.

Attached as Appendix A is CWC's price fixed bid for installing and maintaining the required equipment for the next ten years. With investors like the Kansas Technology Enterprise Corporation and Douglas County Bank, CWC has the financial wherewithal to ensure that the implementation goes smoothly and the technical knowhow to ensure that the final product is of the highest quality.

A diagram showing the relationship between Lawrence Freenet, Inc. and Community Wireless Communications Co. appears below as Figure 14.



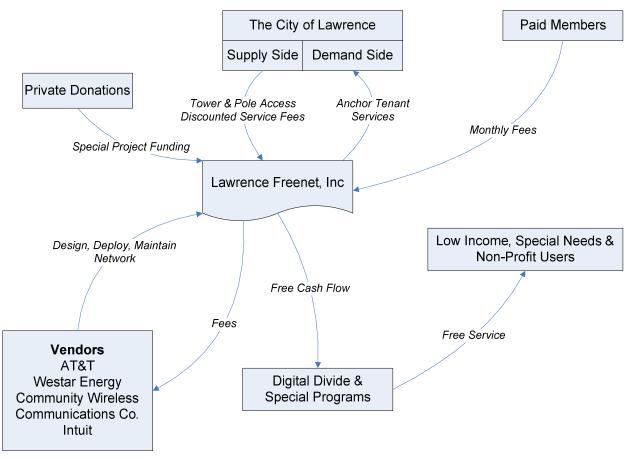


Figure 14: The Lawrence	<b>Freenet Project</b>
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It should be noted that a majority of the staff who work on the Lawrence Freenet Project full time work for CWC rather than Lawrence Freenet, Inc.; however, the board of directors of Lawrence Freenet is ultimately responsible for the project.

Lawrence Freenet Board	Current Profession
Adam Mansfield - President	Attorney – The State of Kansas
Kris Adair - Treasurer	Mother
Matthew Kuzinski – Vice President	Director of Technology - CLO
Todd Hiatt	Attorney - Ralston, Pope & Diehl, L.L.C.
Kevin Kennedy	Environmental Health Specialist - Children's Mercy Hospital

It should be noted that as part of any involvement by the City of Lawrence in the project, Lawrence Freenet, Inc. would request a member of the city staff join the board of directors. Though this is not mandatory, it would improve transparency and give the City of Lawrence a voice in how the project progresses. The non-profit would also welcome a member representing USD497, the Lawrence Education Association and any other community group whose mission is in line with Freenet's goals.



# 5. Municipal Services

Lawrence Freenet is not asking for a handout. In exchange for a loan guarantee the organization is willing to provide the City of Lawrence with assets and services worth \$12,280,000 over the first 10 years of service. It should be noted that when adjusted for inflation this represents as much benefit to the city as the total franchise fees paid by both the local cable operator and the local telephone carrier combined.

Included in the municipal amenities are:

- Universal broadband access for every child in Lawrence.
- Ownership of over 25 miles of fiber-optic cable located throughout the community.
- Offsite access for city workers
- Secure access for the Police Department
- Universal Access to Public Library IT Resources
- HAMMER Emergency Broadcast System
- KanREN access for serving the University of Kansas

#### 5.1. Freenet-Kids – Universal Broadband for Children

The core service being proposed by Lawrence Freenet is Freenet-KIDS. This service would be delivered on a separate SSID from Freenet's current low income and member services. The SSID "Freenet-KIDS" would be broadcast city wide and would allow any child to access the Internet using any WiFi enabled device.

As has been discussed above, the network would be developed with child friendly filtering technology and would provide true broadband speeds of 1,024 Kbps under nominal network load.

Children within the community would be able to make use of the network for educational activities such as research, educational games, document composition, and much, much more.



By providing universal Internet access to every child in the community, Lawrence would become a national leader in broadband access and an example to other communities across the United States. By doing it without any municipal expenditure, the City would demonstrate financial prudence and help pave the way for a working model for municipal wireless.

The Lawrence Freenet project has already caused other communities across the state to take notice. Osage City, for example, cites Lawrence Freenet as a key factor in creating their own municipal WiFi project. When contacted by Freenet regarding the status of their project City Commissioner Jason Croucher of Osage closed his e-mail with "*I know your organization has done some excellent work in Lawrence (in the end, you're our inspiration).*"

By providing children throughout the City of Lawrence with broadband Internet access, Freenet will be providing a service that is worth \$9,420,000 over a ten year time frame. This number



was arrived at by multiplying Lawrence Freenet's minimum subscriber cost (\$7.85/Mo) by 10,000 students. Taking this number and multiplying by 120 months yields a benefit of \$9,420,000.

The proposed service includes:

- 1. Basic telephone support
- 2. Five full time field support staff dedicated exclusively to Freenet-Kids
- 3. Wireless broadband access for children throughout the community

It should be noted that it does not include in-home support for each and every student. To receive help getting their computers online parents or students will need to bring their device into the daily in-school support session.

#### 5.2. Fiber-optic Cable



There are several ways that the current Lawrence Freenet proposal can save the City of Lawrence money in the short term. One way the project can save the city money is by providing a significant infrastructure asset to the City of Lawrence as partial compensation for the loan guarantee.

As part of the proposed solution, Lawrence Freenet plans to provide the City of Lawrence with ½ of the fiber-optic cable being installed in the course of the project. Since the engineering

for the project has yet to be implemented, the actual number of proposed strands is unknown, but it is likely that more than 96 strands will be installed on each fiber route.

Since the City of Lawrence is likely to receive Federal funds for the installation of its ITS system, the Lawrence Freenet team would like to discuss how ownership of the fiber-optic cable can be passed off to the city in the most revenue efficient manner. At the end of the project it is Lawrence Freenet's goal that the City of Lawrence fully own its fiber-optic backbone.



Start	End	Distance (Miles)
Core Network		
1462 US-40	6 W 6th St.	1.5
6 W 6th St.	6th St. & Iowa St.	1.4
6th St. & Iowa St.	6th St. & Wakarusa Dr.	2.5
6th St. & Iowa St.	23rd St. & Iowa St.	2
6th St. & Wakarusa Dr.	23rd St. & Wakarusa Dr.	2
23rd St. & Wakarusa Dr.	23rd St. & Iowa St.	2.5
23rd St. & Iowa St.	23rd St. & Harper Ave.	2.5
Bob Billings Pkwy. & Wakarusa Dr.	Bob Billings Pkwy & Iowa St.	2.5
23rd St. & Iowa St.	33rd St. & Iowa St.	1.5
6 W 6th St.	23rd St. & Massachusetts St.	2.1
19th St. & Iowa St.	19th St. & Harper Ave.	2.5
Sub-Total Core		23
Spur Sites		
3608 W. 6th St.	6th St. Tower	0.125
600 Mississippi St.	1200 Mississippi St.	0.6
23rd St. & Harper Ave.	2100 Harper Ave.	0.125
Bob Billings Pkwy & Kasold Dr.	1800 Kasold	0.5
2300 Wakarusa Dr.	4924 Stoneback Pl	0.125
600 Lawrence Ave	200 Lawrence Ave	1
Iowa St. & Oxford Rd.	Water Tower Park	0.125
Sub-Total Spur		2.6
Total Additional Fiber		25.6

Table 1:	Proposed	Fiber-Optic	Cable Routes
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Figure 15: Proposed Fiber-Optic Cable Routes

The installation of this asset represents a significant financial incentive for the City of Lawrence and can likely reduce projected expenditures in both the Information Technology department and the Public Works department.



Information Technology, for example, can cut expenses by eliminating T-1 service to a number of city facilities.

As for Public Works, the City of Lawrence currently has plans on the books to implement an intelligent traffic control system on 6<sup>th</sup> St. By allowing Lawrence Freenet to install this cable as part of its larger fiber project, the City could save a significant sum of money in FY2008.

Freenet's vendor CWC currently has proposals in-house from reputable fiber-optic cable installation organizations that place the value of this part of the proposal at \$1,963,501.

#### 5.3. Police Access

Over the past several years, Lawrence Freenet has discussed the data needs of the Police Department on several occasions. With the addition of a fiber-optic backbone, Lawrence Freenet can now provide the level of service that the Police department has indicated it requires in order to use the network.

As part of this proposal, Freenet would provide data transport services to the City of Lawrence Police Department at no cost. This would enable the police department to access broadband online resources like



finger print databases, facial recognition databases, file servers and communications infrastructure from patrol cars located anywhere inside the city limits.

Police Officers could also access the network from palm pilots, laptop computers or any other WiFi enabled device. This opens the doors to many exciting applications that can speed up law enforcement, reduce overhead expenditures and improve public safety for all citizens of Lawrence.

The company cannot provide free equipment or support to the City of Lawrence Police Department though Lawrence Freenet will provide access to the city wide WiFi network as part of the Freenet-Kids initiative. If the department needs expertise in the installation and maintenance of its wireless equipment or needs help with internal routing, external routing, encryption, mobile VPN solutions or other items of this nature, they would need to be contracted with an outside party.

Freenet currently charges paying members \$20/Mo for each connection. Freenet currently estimates that the police department will eventually use 100 devices to connect to the network, from laptops, to patrol cars, to security systems to PDAs. This places the monthly value of this gift at \$2,000. Over a 10 year term this provides \$240,000 in benefits to the City of Lawrence.



## 5.4. Staff Access

All city staff from the planning department, the utilities department, and public works would have access to the WiFi network to help complete their daily jobs.

Potential applications include:

Faster inspections & permits for residents Improved remote access to GIS information Off site access to e-mail & file servers



Once access to city network resources becomes available

universally, staff will likely think up a number of other ways to better serve the Lawrence community.

Once again, Lawrence Freenet will provide data transport, but the installation, configuration, support and maintenance of the equipment necessary to access the network will be the sole responsibility of the City of Lawrence.

Freenet currently estimates that the City of Lawrence will eventually use 100 devices to connect to the network. At an aggregate cost of \$20/Mo these would provide a benefit of \$240,000 to the City over a 10 year timeframe.

#### 5.5. Library Access

The Lawrence Public Library is one of the most important resources in the community. It serves as a focal point for community events, provides critical information to students and has one of the most impressive Information Technology initiatives in the City.

Though this is a great asset to the community as a whole, limited Internet access within the community can make it hard to use these valuable resources from remote locations.

As part of the Freenet-Kids proposal and part of its commitment to education in Lawrence, the Lawrence Freenet team would like to make access to the Library's IT resources universally available.

To do this, the Freenet team would simply add the Library's website to the list of resources that are available without a Freenet account. Right now these include Google Maps, The Lawrencian and Lawrence Freenet's own website.



Lawrenc					
lome Coverage F	Rates Sign Up! News	Support Products Ab	out Us Contact Us		
FREE SERVICES Signup Now	Not A Lawrence Freenet Me	mber?			
Google Maps	CLICK HERE TO SIGN UP NOW!				
The Lawrencian	Customer Login				
Manage Your Account	Username:	*			
Forgot Password?	firstname.la	stname *			
$\land$	remember me	rLogin			
HELP WANTED	* Required Fields Day Pass Login				
Click Here	First Name:	*	Day Pass Login		
	E-mail:	*	Please enter your name and e-mail address below along with the serial number and access code from your day		
	Serial Number:	*			
	Access Code:	*	pass.		
	How did you hear about Lawrence Freenet?				
	If 'Other' please specify: Day Pas	s Sign In			

Figure 16: Lawrence Freenet's Login Page Allows Free Access to Certain Sites

By adding the public library and its IT resources to this site, Freenet would effectively make access to library resources universal. Citizens from across the community would be able to access the Library's website using any WiFi enabled device.

Lawrence Freenet would currently charge paying websites of the Public Library's size \$1,000 to make their resources available to the community without a payment. This means that over a 120 month time frame this amenity is worth \$120,000.

#### 5.6. HAMMER Emergency System

With more and more people using the Internet as their exclusive source for voice, video and data, providing information to residents of the City in the event of an emergency has become increasingly difficult.

Traditional emergency broadcast systems use television and radio to alert the community in the event of severe weather, chemical spills or other critical emergencies. Since many members of the community don't tune into these resources, there is a significant danger that they may miss an important warning.

The High Availability Municipal Mesh Emergency Response (HAMMER) System is Freenet's answer to this problem. This system was designed to make emergency information available to network users independent of radio or television broadcasts.



The system acts to interrupt every web session on the network and re-direct traffic at an emergency information page. What does this mean?

If there are 11,000 members using the network to access the Internet and the HAMMER System is activated, all 11,000 members will be automatically re-directed to a single web page the next time they refresh their web browser. The web page might contain information on a severe weather event, national crisis or other dangerous event on the University campus.

As part of the Freenet-Kids project, the organization would coordinate the use of the HAMMER system with city emergency services allowing them to implement the system in the event of an emergency.

## 5.7. Kansas Research and Education Network (KanREN)

As part of the Freenet-Kids initiative Lawrence Freenet will also provide a direct fiber-optic connection between the KanREN facility located at 1405 South Wakarusa and the Elsworth Annex on the campus of the University of Kansas. This connection will be used by KanREN to better serve universities and schools throughout the State of Kansas. It will also allow KanREN to improve services, reduce telecommunications cost and better serve the community.

Leased lines of this type would typically cost approximately \$1,500 for each demarcation point. Bringing the total value contributed to KanREN to \$3,000/Mo or \$360,000 over 120 Months.

## 5.8. Financial Benefits

The total financial benefit to the City of Lawrence for guaranteeing Freenet's loan from a local lender is \$12,280,000 over a 10 year period. This does not include difficult to quantify benefits like improved community access, improved education and a nation-wide reputation for being a leader in information technology.

Other hard to quantify benefits include:

**Job Creation** – The Lawrence Freenet Project would hire 17 additional full time staff to support the project. All of these staff members are paid well above the living wage and receive full medical and dental benefits.

**Budgetary Offsets** – By providing fiber-optic connectivity to traffic control signal, water department infrastructure and other hard assets, the Freenet-Kids initiative will enable the City of Lawrence to reduce planned expenditures. By reducing expenditures allocated to these types of projects, the City of Lawrence can cut its overall budgetary expenditures and save taxpayers money.

**Increased Tax Base** – Since Kansas Law does not have a category for "non-profit Internet Service Provider" Lawrence Freenet pays sales tax on all equipment sales.

**Public School Equipment** – As part of its proposal, Lawrence Freenet will provide 375 (\$75,000) in free laptops to children within the community each year for 10 years.



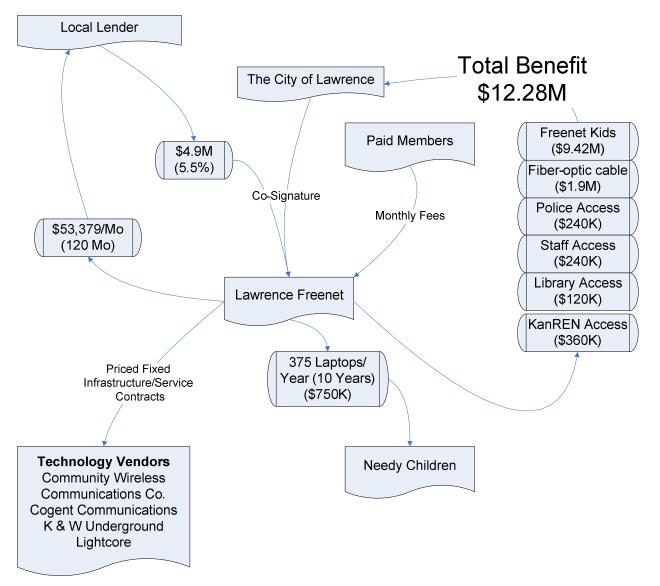


Figure 17 shows a graphical representation of the proposed economic development arrangement.

**Figure 17: Financial Benefits of Lawrence Freenet Proposal** 



# 6. Schedule

There are four major tasks will be completed as part of the Freenet-Kids initiative.

Task	Start Date	<b>End Date</b>
Mesh Radio Installation	3/17/2008	7/15/2008
Fiber-optic Cable Planning	3/3/2008	5/30/2008
Fiber-optic Cable Installation	6/2/2008	5/30/2009
Filtering Policy Development	4/1/2008	5/30/2008
Filter Installation & Testing	6/2/2008	8/1/2008
Beta Testing Support Development	8/1/2008	8/1/2009
Beta Testing Period	8/1/2008	8/1/2009
Freenet-Kids Launch	8/3/2009	-
Freenet-Kids Production Support	8/3/2009	_

D	Task Name	Start	Finish	Feb 24, '08	May 4, '08	Jul 13, '08 13 14	Sep 21, '08	Nov 30, '0 18 20	8 Feb 8, '09 21 22	Apr 19, 1	09 Jun 2 29 30	8, '09	Sep 6, '09 2 4
1	Radio Installation	Mon 3/17/08	Tue 7/15/08			1							
2	Fiber Planning	Mon 3/3/08	Fri 5/30/08		աղ								
3	Fiber Installation	Mon 6/2/08	Tue 6/2/09								1		
4	Freenet-Kids Filtering Policy Development	Tue 4/1/08	Fri 5/30/08										
5	Freenet-Kids Filter Installation	Mon 6/2/08	Fri 8/1/08										
6	Freenet-Kids Beta Period	Fri 8/1/08	Fri 7/31/09									1	
7	Freenet-Kids Beta Support	Tue 7/1/08	Sat 8/1/09		ļ. 🕻	,	,			un in the	, and the second se		
8	Freenet-Kids Launch	Mon 8/3/09	Thu 8/1/19										
9	Freenet-Kids Production Support	Mon 8/3/09	Thu 8/1/19										

Figure 18: Freenet-Kids Master Schedule

# 7. Financial Summary

Lawrence Freenet, Inc. has strived to evaluate the market potential of its paid products in a unbiased light. The forecasts presented are based on the best information available. As part of its proposal, the project's service provider, Community Wireless Communications Co. has guaranteed subscriber growth for the 18 month period encompassing this project. CWC's fulfillment contract will contain a penalty clause penalizing the organization for falling short of sales expectations and rewarding the company for exceeding them.

The success of municipal WiFi projects in other communities such as Chaska, Minnesota, lead the project to believe that total market penetration for a Freenet's product can reach up to 15% within two year of network launch. It should be noted that the first section of production quality coverage for the Lawrence Freenet project was launched in May 2007.

Lawrence Freenet plans to spend available funds on expanding its network, improving the quality of the service, and marketing the service to the community.

### 7.1. Current Financing

To date Lawrence Freenet has been financed by two major sources:

1. Paying members who choose to use Freenet's wireless broadband service to access the Internet.



2. Vendor financing – As part of their service agreement vendors provided financing for the initial network rollout on behalf of Lawrence Freenet.

As of December 31, 2007, Lawrence Freenet has received \$2,412,149 in vendor financing and \$183,845 in member fees to establish and support its service. Most of these funds were expended developing and deploying the organization's core network within Lawrence and providing support services for paying members.

Going forward, Freenet seeks to finance its own network expansion through long term debt issued by a local lender. With assistance in securing this debt, the interest rate can be brought down and the difference between the market rate and the municipally secured rate can be used to provide free services for children within the community.

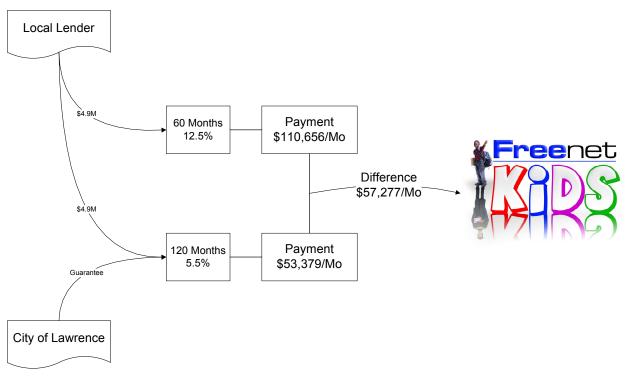


Figure 19: Freenet-Kids is made possible by lowering the loan Interest rate with a municipal guarantee.

### 7.2. Community Wireless Communications Co. Proposal

Since Lawrence Freenet itself is primarily a public service organization, technical fulfillment and development has been contracted to the organization's primary vendor, Community Wireless Communications, Co. This vendor has shown a willingness to participate in the project financially by providing \$2.4M in financing during its first 2 years of operations.

To keep the costs of deploying the equipment required for Freenet-Kids under control, Lawrence Freenet, Inc. requested a price fixed bid from Community Wireless. This bid appears in its entirety in Appendix A. The total dollar amount of this bid is \$5,449,356 over 18 months. The bid also sets out milestones for when key tasks need to be accomplished by Community Wireless in order to release payment.



### 7.3. Long Term Viability

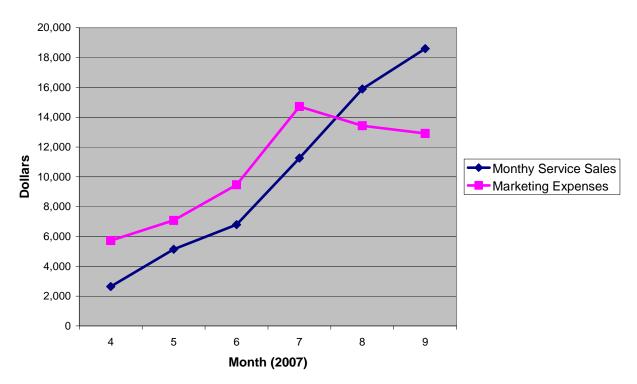
As it approaches its third birthday, the Lawrence Freenet Project continues to become stronger financially. Beginning with a single member in August of 2005, the project now serves over 1,100 paying members throughout the City of Lawrence and beyond.

The organization's long term financial plan is based on continued expansion of its member base in Lawrence coupled with improved service to existing members.

Community Wireless Communications Co. has indicated that the organization can continue to grow its subscribers at a rapid rate (225 new members/month) given a continued financial commitment to marketing.

Historic financial statements for the past two years are included as Appendix C. Appendix D contains detailed 5 year financial projections.

These projections are based on the organization's historic success with member growth. Figure 20 shows the results of the project's marketing efforts for Q2 and Q3.

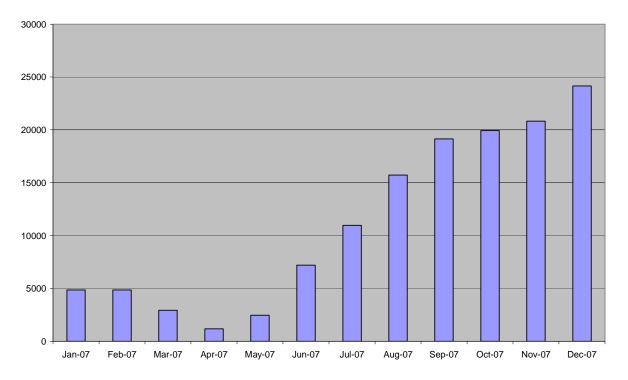


# Marketing Effectivness

Figure 20: For every \$60 spent on marketing Lawrence Freenet adds a new paid member.

Overall revenue growth during 2007 was significant. Figure 21 shows that the total revenue growth for the year was greater than 500%.





#### Paid Member Revenue (2007) [2 Month Running Average]

Figure 21: Revenue growth for 2007 was 500%

# 8. About Lawrence Freenet

The Lawrence Freenet Project is one of the first municipal wireless broadband projects in the Midwest. The goal of the project is to build a community in which everyone can access the Internet, anywhere, anytime, free of charge.

To work toward this goal, the organization has initially focused on providing free access to low income families. The organization is now expanding this service to include every child in Lawrence. By making this important educational resource available to children everywhere, Freenet hopes to benefit the entire community.

Lawrence Freenet, Inc. is a 501c(4) not-for-profit company that works with city government, service providers and members of the community to further the project's mission. The not-for-profit is governed by a board of directors consisting of members of the community that are interested in making the Internet available to everyone, everywhere, regardless of income.

Over time it is the goal of Lawrence Freenet to expand its service to provide broadband wireless to rural and urban communities across the Midwest.



# Appendix A: Community Wireless Communications Co. Proposal



# **Freenet-Kids Network Expansion Proposal**

December 31, 2007

Community Wireless Communications Co. 4105 W. 6<sup>th</sup> St. P.O. Box 3532 Lawrence, KS 66046 http://www.civicwifi.com Contact: Joshua Montgomery President joshua.montgomery@civicwifi.com Ph. (785) 371-4214 Ext 8001 Fx. (785) 331-2086 Cl. (785) 840-6155

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### 1. General Overview

In response to requests from Lawrence Freenet, Inc., Community Wireless Communications Co. has developed the following proposal for expanded network access in Lawrence Kansas.

Due to the large number of new members proposed in Lawrence Freenet's "Freenet-Kids" initiative, CWC's technical staff has specified a significant expansion of Lawrence Freenets network backbone. The staff has also indicated that adequate coverage for the proposed user base will require further expansion of the projects access point placement.

This proposal is a general outline of what it will take to provide the level of coverage and service outlined in the Freenet-Kids proposal submitted by Lawrence Freenet, Inc.

This document serves as a letter of intent to enter into a contract for delivery of the specified network infrastructure. Upon contract award, CWC will enter into a performance agreement for delivering the specified services in the specified timeframe.

# 2. Progress to Date

Over the past two years Community Wireless Communications Co. has developed one of the largest mesh networks in the world. By leveraging the power of open source software and providing innovative technical, marketing and public relations solutions, CWC has been able to expand Lawrence Freenet's paid member base from less than 50 to over 1,000, while simultaneously expanding network coverage from a single access point to 550 access points deployed throughout the community.

During this time CWC has also been able to provide over \$2.4M in financing in order to make the network possible.

The organization has also made extensive technological contributions to the project by developing a core software infrastructure that enables real time tracking of network issues, comprehensive customer information management and business management tools that are second to none.

Total core network capacity during this time has expanded from 7Mbps to over 100Mbps an increase of 1,400% over a two year timeframe. At the individual member level, members have also seen significant increases in network availability, reliability and throughput.

The success of the network rollout in Lawrence has also made expansion of the project possible, with CWC signing its first expansion community, North Newton, Kansas, and planning its first out of town rollout for spring 2008.

# 3. Project Overview

Lawrence Freenet has requested that CWC continue to improve the Lawrence, Kansas network by increasing coverage from its current 60% level to 95% over a period of 18 months. The organization has also requested that CWC increase core network throughput by 300% over the same time period.

To accomplish this goal CWC will need to install an additional 400 mesh radios within the Lawrence community and replace the current wireless core with a core network composed of fiber-optic cable.

# 4. Budget

The total budget for the project over 18 months is \$5,449,356. This represents payment for the installation of 400 additional mesh radios, 25.6 Miles of fiber-optic cable, installation of switching and routing equipment as well as operating and installation expenses.

Description	Quantity	Unit Price	Total Price
Mesh Radios	400	2,100	840,000
Fiberoptic Cable	25.6	76,699	1,963,501
Switching Equipment	1	209,500	209,500
Installation Costs			
Year 1	1	474,000	474,000
Year 2	1	483,500	483,500
Sub-total Installation			3,970,501
Operating Costs			
Year 1	1	839,742	839,742
Year 2	1	639,113	639,113
Sub-total Operating			1,478,855
Total Project Cost			5,449,356

### 4.1. Access Points

Access points will be installed in areas of the community where additional coverage or connectivity is needed. After looking at existing data demands and interest from local neighborhoods CWC's technical staff have recommended additional radios be added to various sections. The current proposal includes 400 additional mesh radios, which will increase coverage by 73% from 550 access points to 950 access points.

# COMMUNITY RELESS

Additional Coverage Extensive Expansion C, D, G, H, I, J, I, M, N, O, P Moderate Expansion A, B, E, F, K, L, T Minor Expansion R, S, T, U, V

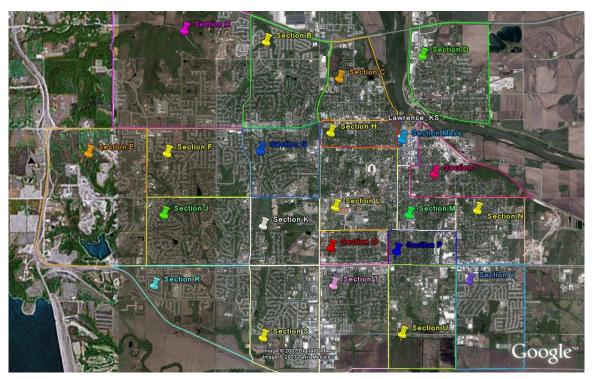


Figure 1: Lawrence Freenet Section Map

As always Radios will be installed by trained professional crews in compliance with Lawrence Freenet's agreements with Westar Energy and the City of Lawrence.

### 4.2. Fiber-optic Cable

To better service Freenet members and provide access for the "Freenet-Kids" project the Freenet network will require a fiber-optic ring to act as a backbone. This ring will allow the staff to directly connect 80 to 100 mesh nodes to the network POPs. It will also significantly increase the reliability of connections to the various tower sites throughout the community.

Since the fiber-optic cable runs are outside of CWC's primary expertise, the organization has solicited bids from established fiber providers. CWC plans to primarily sub-contract this work,

P.O. Box 3532, Lawrence, KS 66046

http://www.civicwifi.com

Ph. (785) 371-4214



but will purchase the equipment and training necessary to maintain the infrastructure once it is in place.



Figure 2: Proposed Fiber-optic Cable Routes

**Table 1: Fiber-Optic Network Proposal** 

Start	End	Distance (Miles)	Cost
Core Network			
1462 US-40	6 W 6th St.	1.5	48,416
6 W 6th St.	6th St. & Iowa St.	1.4	45,881
6th St. & Iowa St.	6th St. & Wakarusa Dr.	2.5	236,720
6th St. & Iowa St.	23rd St. & Iowa St.	2	65,488
6th St. & Wakarusa Dr.	23rd St. & Wakarusa Dr.	2	190,096
23rd St. & Wakarusa Dr.	23rd St. & Iowa St.	2.5	236,720
23rd St. & Iowa St.	23rd St. & Harper Ave.	2.5	80,960
Bob Billings Pkwy. & Wakarusa Dr.	Bob Billings Pkwy & Iowa St.	2.5	236,720
23rd St. & Iowa St.	33rd St. & Iowa St.	1.5	140,072
6 W 6th St.	23rd St. & Massachusetts St.	2.1	199,060
19th St. & Iowa St.	19th St. & Harper Ave.	2.5	237,520
Sub-Total Core		23	1,717,653
Spur Sites			
3608 W. 6th St.	6th St. Tower	0.125	13,160
600 Mississippi St.	1200 Mississippi St.	0.6	55,088
23rd St. & Harper Ave.	2100 Harper Ave.	0.125	13,160
Bob Billings Pkwy & Kasold Dr.	1800 Kasold	0.5	46,640
2300 Wakarusa Dr.	4924 Stoneback Pl	0.125	13,160
600 Lawrence Ave	200 Lawrence Ave	1	91,480
Iowa St. & Oxford Rd.	Water Tower Park	0.125	13,160
Sub-Total Spur		2.6	245,848
Total Additional Fiber		25.6	
Total Cost			1,963,501

### 4.3. Switching Equipment

To provide adequate connectivity to the various sites served by the planned fiber-optic cable installation, the organization needs to install switching equipment at various locations along the fiber-optic routes. Preliminary estimates indicate that the organization needs to install 24 routers/switches and 5 additional servers to handle the anticipated network load.

Since it is likely that some changes will be made during the course of the installation requiring additional routing/switching equipment an allowance of \$50,000 has been added to defer these costs.



**Table 2: Switching Equipment** 

Core Equipment			
Routers & Switches			
C5750G-12S	24	4,500	108,000
GLC-JH-SM	288	150	43,200
PA-GE	1	1,150	1,150
LX GBIC	1	100	100
SX GBIC	1	50	50
Subtotal Routers & Switches			152,500
Servers	5	1,400	7,000
Other Infrastructure	1	50,000	50,000
Total Core Equipment			209,500

### 4.4. Direct Costs

The direct costs associated with the project have been limited to additional personnel salaries. Benefits, insurance, taxes, vehicle expenses and other ancillary expenses are presented along with operating costs.

### 4.4.1. Direct Costs Years 1 & 2

The target start date for this portion of the Lawrence Freenet project is March 1. During the first year the organization plans to allocate the following full time staff to the project. Some of these staff members will come on to the project at different times depending on the need.

As always, CWC 100% of CWC's full time staff are paid in accordance with the local community's living wage. Staffers also receive fully paid health and dental benefits.

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#### **Table 3: Direct Installation Costs Year 1**

Month	1	2	3	4	5	6	7	8	9	10	11	12	Monthly Salary	Total Salary
Position														
Call Center	1	1	1	1	1	1	1	3	3	3	3	3	2,000	44,000
Program Manager	0	0	1	1	1	1	1	1	1	1	1	1	6,000	60,000
School Technicians	0	0	0	0	0	0	0	1	1	1	1	1	2,500	12,500
Technicians	0	2	2	4	4	4	4	4	4	4	4	4	3,000	120,000
Network Administrator	0	0	1	1	1	1	1	1	1	1	1	1	5,000	50,000
Engineering	0	0	0	1	1	1	1	1	1	1	1	1	5,000	45,000
Existing Staff	0	0	7,500	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000		142,500
Total	2,000	8,000	26,500	45,000	45,000	45,000	45,000	51,500	51,500	51,500	51,500	51,500		474,000

#### Table 4: Direct Installation Costs Year 2

Month	1	2	3	4	5	6	7	8	9	Monthly Salary	Total Salary
Position											
Call Center	3	3	3	3	3	3	3	3	3	2,000	54,000
Program Manager	1	1	1	1	1	1	1	1	1	6,000	54,000
School Technicians	1	1	1	1	1	1	1	5	5	2,500	42,500
Technicians	4	4	4	4	4	4	4	4	4	3,000	108,000
Network Administrator	1	1	1	1	1	1	1	1	1	5,000	45,000
Engineering	1	1	1	1	1	1	1	1	1	5,000	45,000
Existing Staff	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000		135,000
Total	51,500	51,500	51,500	51,500	51,500	51,500	51,500	61,500	61,500		483,500

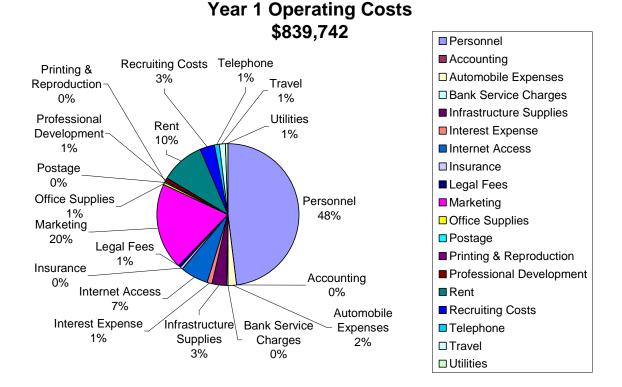
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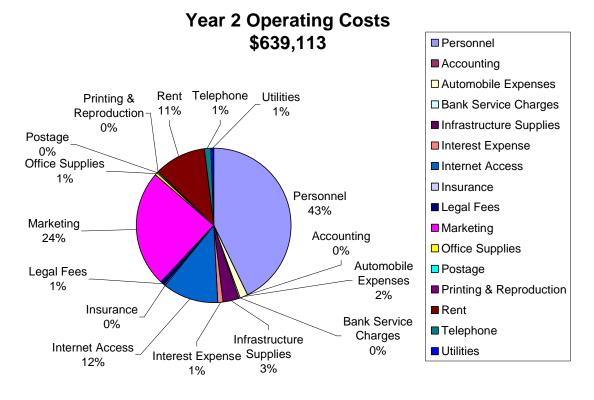
### 4.5. Operating Costs

In addition to building out the additional infrastructure needed to complete the Freenet-Kids project, CWC will continue to maintain the existing network and provide services for Lawrence Freenet members.

For the construction period (March 2008 to August 2009) CWC proposes a price fixed payment for these operating costs. Costs are divided as follows:







# 5. Schedule

The proposed schedule for the project encompasses the period from March 1, 2008 to August 30, 2009. Since schedule performance is heavily influenced by approvals from city government, exact installation dates for the fiber-optic cable are not attainable at this time.

Installation for 90% mesh radio equipment (360 Radios) will take place within 4 months of the project start date. The remaining 10% will be installed throughout the remaining 14 months as pole attachment standards are reached with Westar Energy.

Beta testing for the Freenet-Kids network will commence on August 1, 2008 with a group of 1,000 children. This program will allow CWC to fully implement the content filtering technology and develop Freenet-Kids specific support procedures.

Total project completion is scheduled for August 1, 2009, when the Freenet-Kids network is opened up for every child in the community who is under 18 years of age.

# 6. Ongoing Costs

In addition to Lawrence, Kansas, CWC will be building out networks in North Newton, Kansas. The company is also in talks with several other large communities regarding the P.O. Box 3532, Lawrence, KS 66046 http://www.civicwifi.com Ph. (785) 371-4214

installation of community oriented network infrastructure. CWC's goal in Lawrence, Kansas is to develop technical and business solutions that can be applied to these expansion communities. The company also uses the Lawrence, Kansas network as an example of what is possible in other communities, pointing to the various successes of the Lawrence Freenet Project as examples to be followed.

This is why CWC has been willing to provide \$2.4M in financing to Lawrence Freenet over the course of a 2 year period. Continuing in this spirit of partnership, CWC proposes the following solution to ongoing costs once the network infrastructure is complete in August of 2009.

As part of this contract, CWC shall guarantee the \$4,918,500 in debt from a local lender. CWC shall be the secondary guarantor and shall be responsible for the debt service in the event that LFN cannot make payments. Such guarantees are contingent on the City of Lawrence taking the roll of fourth guarantor, responsible for the debt service in the unlikely event that both Lawrence Freenet, Inc. and Community Wireless Communications Co. or Joshua Montgomery cannot make the payments.

With delivery of the network anticipated on August 30, 2009, CWC and Lawrence Freenet shall enter into a maintenance agreement on September 1, 2009. Said agreement shall span 102 months following the delivery of the contract and shall have the following general clauses:

CWC shall be paid on a performance basis, with per-member compensation determined by the total number of paying members using the Freenet network in any given month.

This performance based pay acts as an incentive for CWC to increase the number of paid members on the network, while simultaneously ensuring that Lawrence Freenet, Inc. has revenue sufficient to pay its ongoing expenses.

• CWC shall be compensated on a per-member basis according to the following chart.

Total Members	Per Member Charge
0 - 3,000	0
3,001 - 4,000	3.98
4,001 - 5,000	8.98
5,001 - 6,000	11.98
6,001 - 7,000	13.98
7,001 - 10,000	14.98
10,001 - 11,000	15.48
11,001 - 12,000	15.98
12,001 - 20,000	16.98



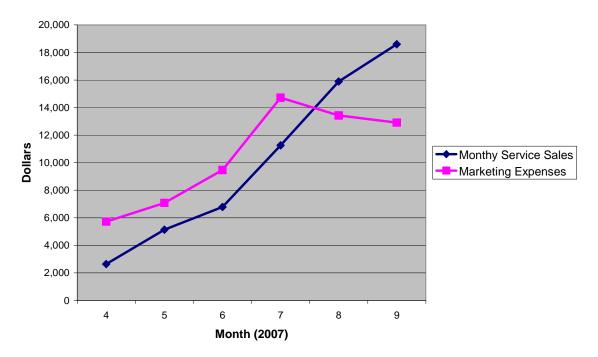
• CWC shall have the right to deploy, promote and maintain any tier 2 services that might be launched on the Lawrence Freenet network. Such services include, but are not limited to, online backups, desktop computer support and video surveillance services.

# 7. Equipment Replacement

CWC shall warranty all installed equipment for ten (10) years from the original installation date. Said warranty shall cover all equipment failures related to the manufacture, installation and/or day to day use of the equipment. CWC shall not be responsible for equipment destroyed by an act of God and requires Lawrence Freenet, Inc. to carry insurance adequate to replace equipment lost in this event.

# 8. Subscriber Performance

Based on the sales performance of the Lawrence Freenet network since the launch of the mesh networking service in May of 2007, CWC is confident that the organization can obtain a member growth rate of 225 members/month by expending \$12,500/Mo in marketing and advertising.



### Marketing Effectivness

Figure 3: Recurring Revenue Growth as Function of Marketing Expenses Q2-Q3 2007

http://www.civicwifi.com

By increasing this marketing from \$12,500 to \$22,500 in July of 2008, the company believes that the growth rate can be increased to 340 new members each month. In response to Lawrence Freenet's request for security related to subscriber growth, CWC is willing to guarantee subscriber growth over the course of the 18 month contract using the following arrangement:

- If the paid membership of Lawrence Freenet, Inc. is below 6,495 when the final contract is delivered, CWC will pay Lawrence Freenet, Inc. \$60 for each member below 6,495.
- If the paid membership of Lawrence Freenet, Inc is above 6,495 when the final contract is delivered, Lawrence Freenet, Inc. will pay CWC \$60 for each member above 6,495.

# 9. Payment Schedule

CWC proposes the following milestone based payment schedule.

Milestone	Date	<b>Dollar Amount</b>
Contract Award	March 1, 2008	2,000,000
Fiber Plan Complete	June 1, 2008	750,000
Fiber Plant Under Way	September 1, 2008	750,000
Mesh Radio Installation Complete	December 1, 2008	750,000
12.25 Miles of Fiber Complete	March 1, 2009	750,000
Project Completion	August 30,2009	449,356
Project Total		5,449,356

# 10. About CWC

Community Wireless Communications is a Kansas Corporation whose primary purpose is to provide Midwestern communities with wireless broadband services including data, video and media.

### 10.1. Company Summary

Community Wireless Communications Co. (CWC) is a municipal wireless service provider delivering Internet access and other data services to Midwest communities. The organization began construction of its network in January of 2006 and completed the first phase of its city wide WiFi network in May of 2007.

CWC has built this network in partnership with the Westar Energy, and Lawrence Freenet, Inc., a non-profit partner. The network provides an umbrella under which users

# COMMUNITY COMMUNICATIONS

can use any WiFi enabled device to connect to the Internet anywhere within the City of Lawrence.

The company believes that a target of 10,000 members within the Lawrence market is achievable within two years of network completion. This is roughly 12% of the total market in Lawrence. To achieve this goal, company efforts will initially be focused on the 25,423 University of Kansas students that occupy Lawrence.

This target is similar to the target of Telescape Communications in Tempe Arizona where the company, which currently serves 130,000 users, plans to sign up 10,000 subscribers in the next year.

In addition to signing up individual customers, Lawrence Freenet is currently in discussions with the University of Kansas regarding a plan to provide service for the entire student body as a paid amenity.

CWC has completed its first municipal WiFi network and currently has approximately 88,000 potential subscribers under coverage. Current accomplishments include:

- Over 550 WiFi radios installed at locations throughout the community.
- Over 3,000 apartments under contract for WiFi installation
- Seven core tower sites completed allowing for WiFi node installations city wide
- A 5-year renewable right of way agreement with North Newton, home of Bethel College.
- Assembled a core staff of talented, highly motivated, technicians and business professionals

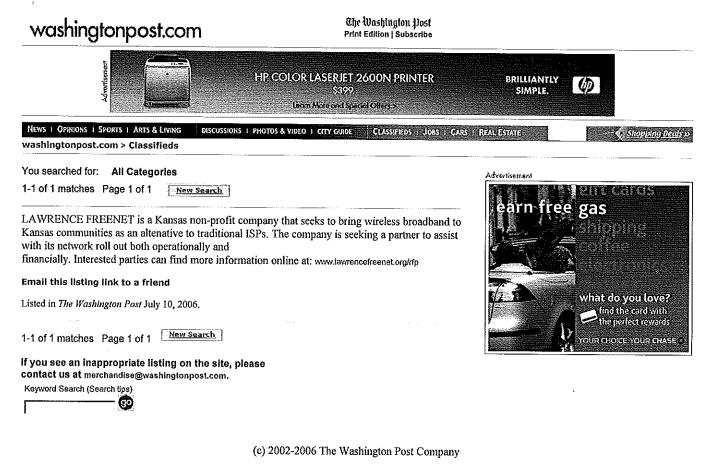
### 10.2. Current Investment

CWC has invested \$2.4 Million to construct the existing infrastructure and anticipates raising an additional \$3.25 Million to build networks in expansion communities and market its services.

Key investors in Community Wireless Communications Co. include the Kansas Technology Enterprise Corporation and Financial Professionals at leading financial institutions such as Sutter Securities, Lehman Brothers and Banc of America Securities.



Appendix B: Freenet Solicitation for Service Provider July 10, 2006



NEWS | OPINIONS | SPORTS | ARTS & LIVING Discussions | Photos & Video | City Guide CLASSIFIEDS | JOBS | CARS | REAL ESTATE

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Lawrence Freenet is a non-profit organization that seeks to bring the internet to everyone, regardless of income. As a non-profit, the company has built relationships with a variety of government and private industry organizations.

Freenet is seeking a for profit partner to provide services to the company to further its goals. The partner should be prepared to:

- 1. Develop and finance a citywide WiFi mesh network rollout.
- 2. Support the network going forward.
- 3. Provide and finance sales, marketing and billing services.

The company is currently seeking letters of interest for potential partners. These letters should include:

- 1. The name of the company.
- 2. Past experience with municipal wireless projects.

Upon execution of a non disclosure agreement companies should also be prepared to submit current corporate financial statements including a P&L, Balance Sheet and Cash flow statement.

Letters may be sent to:

Adam Mansfield President Lawrence Freenet, Inc. P.O. Box 3532 Lawrence, KS 66046

Or submitted via e-mail to:

contact@lawrencefreenet.org



Appendix C: Audited Lawrence Freenet Financial Statements 2006

# LAWRENCE FREENET INC.

# FINANCIAL STATEMENTS FOR THE PERIOD ENDED DECEMBER 31, 2006

# AND

# INDEPENDENT AUDITOR'S REPORT



KRISTY TESKA ENROLLED AGENT

K TAX & FINANCIAL SERVICES 2708 FREEDOM HILL CT. LAWRENCE, KS 66047

(785) 843-8687

### LAWRENCE FREENET INC.

# YEAR ENDING DECEMBER 31, 2006

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### AUDIT REPORT

To the Board of Directors of Lawrence Freenet Inc.;

I have audited the enclosed statement of assets, liabilities, and equity of Lawrence Freenet Inc. a nonprofit organization as of December 31, 2006 and the related statement of revenues and expenses for the year then ended.

The audit consisted of examining documents and files, asking questions and compiling Quick Books reports. The bank account balances were verified with the Quick Books balance. Accounts receivable was reviewed. Accounts payable balances were verified with the paper file provided by the company. The only fixed assets owned by the company were donated computers.

The nonprofit organization prepares its financial statements on the modified cash basis of accounting, which is a comprehensive basis of accounting other than generally accepted accounting principles.

In my opinion, the financial statements included in this report present fairly in all material respects the assets, liabilities and equity of Lawrence Freenet Inc. as of December 31, 2006.

Knisty Testa

Kristy Teska Enrolled Agent

2708 Freedom Hill Ct., Lawrence, KS 66047 (785) 843-8687 ktax@sunflower.com

Page 1

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04/03/07 Accrual Basis

### Lawrence Freenet Inc Balance Sheet As of December 31, 2006

	Dec 31, 06
ASSETS Current Assets Checking/Savings Checking Account - Central Douglas County	2,057.86 732.19
Total Checking/Savings	2,790.05
Accounts Receivable 1200 - Accounts Receivable	2,360.49
Total Accounts Receivable	2,360.49
Other Current Assets 1499 · Undeposited Funds	1,083.78
Total Other Current Assets	1,083.78
Total Current Assets	6,234.32
Other Assets Computers, Donated	900.00
Total Other Assets	900.00
TOTAL ASSETS	7,134.32
LIABILITIES & EQUITY Liabilities Current Liabilities Accounts Payable 2000 · Accounts Payable	13,480.44
Total Accounts Payable	13,480.44
Other Current Liabilities Refundable Advances Loan From Andrew Brown Loan From Joshua Montgomery Loan From Kris Adair	150.00 -396.35 -0.60
Total Refundable Advances	-246.95
2100 · Payroll Liabilities	695.45
Total Other Current Liabilities	448.50
Total Current Liabilities	13,928.94
Total Liabilities	13,928.94
Equity 1110 · Net Assets Net income	3,024.90 -9,819.52
Total Equity	-6,794.62
TOTAL LIABILITIES & EQUITY	7,134.32

#### Accrual Basis

### Lawrence Freenet Inc Profit & Loss January through December 2006

	Jan - Dec 06
Ordinary Income/Expense Income 4030 · Contributions Income	
4070 · Unrestricted	2,185.00
Total 4030 · Contributions Income	2,185.00
4150 · Miscellaneous Income 4170 · Program Fees Equipment Sales Installation	81.89 8,768.51 29,008.39
Internet Service Labor 4170 · Program Fees - Other	29,008.39 20,170.35 381.25 25.00
Total 4170 · Program Fees	58,353.50
4190 · Reimbursed Expenses	-89.11
Total income	60,531.28
Cost of Goods Sold 5000 · Cost of Goods Sold	8,868.12
Total COGS	8,868.12
Gross Profit	51,663.16
Expense Seminars	200.00
4000 · Reconciliation Discrepancies 6110 · Automobile Expense	-0.01 40.34
6120 · Bank Service Charges	1,553.11
6180 · insurance 6185 · Liability Insurance	900.00
6180 · Insurance - Other	485.00
Total 6180 · Insurance	1,385.00
6200 · Interest Expense 6230 · Licenses and Permits	9.51 42.00
6240 · Miscellaneous	132.63
6250 · Postage and Delivery 6260 · Printing and Reproduction 6270 · Professional Fees	186.14 72.45
6655 · Consulting	260.50
Total 6270 · Professional Fees	260.50
6290 · Rent 6340 · Telephone	30.00
Mobile Phone Total 6340 · Telephone	456.34
6350 · Travel & Ent	456.34
6370 · Meals	358.10
6380 · Travel	483.80
Total 6350 · Travel & Ent	841.90
6390 · Utilities 6550 · Office Supplies	12.56 221.34
6560 · Payroll Expenses 6670 · Program Expense	8,165.28
Access Point Installation Subs	30,285.28
Computer Donations Internet Service	600.00
Network Infrastructure	15,781.99 480.88
Warranty	268.75
Total 6670 - Program Expense	47,416.90
6770 · Supplies	000 00
6780 · Marketing 6790 · Office	333.90 25.00

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#### Accrual Basis

### Lawrence Freenet Inc Profit & Loss January through December 2006

	Jan - Dec 06
Total 6770 · Supplies	358.90
Total Expense	61,384.89
Net Ordinary Income	-9,721.73
Other Income/Expense Other Income 7030 - Other Income	389.44
Total Other Income	389.44
Other Expense 8010 · Other Expenses	487.23
Total Other Expense	487.23
Net Other Income	-97.79
Net Income	-9,819.52

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### LAWRENCE FREENET INC.

### YEAR ENDING DECEMBER 31, 2006

### Notes to Financial Statements

Lawrence Freenet Inc. is a nonprofit service organization. Its mission is to make internet access available to everyone in Lawrence, KS.

#### Note 1 - Accounts Receivable:

Accounts receivable transactions are downloaded from two sources and checks are entered as received. Some customers signup and pay their account online.

#### Note 2 - Assets:

During 2006, the only fixed assets owned by the company were donated computers as reflected on the Balance Sheet. All other assets were borrowed or personal property of the employee.

### Note 3 – Modified Cash Basis of Accounting:

The financial statements are prepared on the modified cash basis of accounting, which is a comprehensive basis of accounting other than generally accepted accounting principles. This basis of accounting differs from generally accepted accounting principles by not tracing accounts receivable and its subsidiary ledger and not accruing accounts receivable and accounts payable.

#### Note 4 - Related Party Transactions:

Employees and Board Members have loaned or advanced funds to the organization and the funds have been tracked.

### Note 5 – <u>Separation of Duties</u>:

The organization is a small nonprofit organization and had one employee in 2006. Due to the limitations of staff, the one employee was responsible for all financial transactions. As the company grows, the financial duties need to be shared so that one person does not have sole responsibility of the receipt process or the payable process.

### Note 5 – Income Taxes

The organization is an nonprofit organization and is exempt from Federal income taxes under Internal Revenue Code Section 501(c)(3).

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# **Appendix D: 5 Year Financial Projections**

Note: 2007 Financial statements represent actual expenditures. Lawrence Freenet's 2007 financial statements are currently undergoing an outside audit to ensure accuracy. Audited 2007 financial statements will be available in mid-February.



### 2007 Profit & Loss Statement

REVENUE	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07
Equipment Sales	2,360	11	122	17	308	304	1,772	3,896	2,788	2,593	3,296
Other Income	0	0	26	18,455	5	408	263	449	511	546	594
Services											-
Internet Services	3,857	3,477	2,274	-60	4,666	9,116	10,761	15,037	16,567	17,905	17,866
Installation & Labor	-113	0	0	0	-100	200	1,065	2,070	410	10	345
Contributions			-				,	,		-	
Unrestricted Contributions	0	0	-704	17	427	228	0	0	1,000	0	0
Restricted Contributions	0	0	0	0	0	0	0	0	350	0	0
TOTAL REVENUE	6,105	3,488	1,719	18,429	5,307	10,257	13,860	21,452	21,625	21,053	22,100
EXPENSES											
VARIABLE EXPENSES											
Reimbursed Expenses	0	0	0	15	-40	-1,920	-240	0	0	0	0
Hardware Costs	248	21	112	0	361	167	1,404	6,237	8,717	7,930	8,817
Installation Costs	-100	0	0	0	8,835	6,294	100	750	0	0	0
Internet Services	1,880	1,590	1,706	0	4,469	7,676	9,656	14,465	20,768	27,006	38,650
Total COGS	2,028	1,611	1,818	15	13,625	12,217	10,920	21,452	29,485	34,936	47,467
GROSS PROFIT	4,077	1,877	-99	18,415	-8,318	-1,960	2,940	0	-7,860	-13,883	-25,366
FIXED EXPENSES											
Payroll Expenses	801	3,840	4,075	3,779	6,610	7,338	6,686	6,707	11,043	4,506	0
Sub Total-Personnel	801	3,840	4,075	3,779	6,610	7,338	6,686	6,707	11,043	4,506	0
Accounting	0	0	150	0	0	0	0	0	0	1,600	0
Bad Debt	0	0	0	0	0	0	0	0	0	0	0
Bank Service Charges	357	432	232	196	-608	415	195	953	824	752	665
Dues & Subscriptions	60	0	0	0	0	40	0	0	393	393	0
Insurance	0	0	0	0	830	830	0	393	739	180	180
Legal Fees	0	0	0	0	0	0	0	0	0	0	0
Licenses and Permits	0	0	0	0	0	0	0	0	401	0	319
Marketing	180	79	93	50	20	0	480	608	460	0	0
Meals and Entertainment	0	59	81	91	65	84	36	0	0	0	0
Misc. Expenses	0	0	0	0	0	641	0	0	12	0	0
Office Supplies	460	250	209	309	29	87	1,123	317	37	43	0
Postage	22	0	0	48	279	0	0	48	0	0	8
Printing & Reproduction	0	13	0	0	0	0	0	0	0	0	0
Professional Development	0	0	180	0	0	0	59	0	0	0	0
Rent	40	0	0	0	0	400	0	800	0	0	0
Sales Tax	0	0	0	0	0	0	0	0	0	0	0
Telephone	0	0	90	106	0	0	64	0	0	0	0
Travel	119	0	227	0	0	0	0	0	0	0	0
TOTAL FIXED EXPENSES	2,039	4,673	5,336	4,580	7,224	9,835	8,643	9,827	13,909	7,474	1,172
TOTAL EXPENSES	4,067	6,284	7,154	4,595	20,849	22,052	19,563	31,278	43,394	42,410	48,639
OTHER INCOME	-66	0	0	0	0	0	0	0	0	0	0
		0 705	- 10-	10.00	1	11 70-		0.005	04 705	01.055	
PRE TAX INCOME	1,971	-2,797	-5,435	13,834	-15,542	-11,795	-5,702	-9,827	-21,769	-21,357	-26,539



REVENUE	Jan-08	Feb-08	Mar-08	Apr-08	May-08	Jun-08	Jul-08	Aug-08	Sep-08	Oct-08	Nov-08
Equipment Sales	0	0	3,000	4,500	4,500	4,500	4,500	4,500	6,800	6,800	6,800
Services											
Internet Services	22,187	22,187	25,691	30,945	36,200	41,455	46,710	51,965	59,906	67,846	75,787
Installation & Labor	0	0	750	1,125	1,125	1,125	1,125	1,125	1,700	1,700	1,700
TOTAL REVENUE	22,187	22,187	29,441	36,570	41,825	47,080	52,335	57,590	68,406	76,346	84,287
	_										
EXPENSES											
VARIABLE EXPENSES											
Hardware Costs	0	0	3,000	4,500	4,500	4,500	4,500	4,500	6,800	6,800	6,800
Installation Costs	0	0	0	0	0	0	0	0	0	0	0
Internet Services	20,289	20,289	0	0	0	0	0	0	0	0	0
Total COGS	20,289	20,289	3,000	4,500	4,500	4,500	4,500	4,500	6,800	6,800	6,800
GROSS PROFIT	1,898	1,898	26,441	32,070	37,325	42,580	47,835	53,090	61,606	69,546	77,487
FIXED EXPENSES											
Payroll Expenses	1,200	1,200	1,200	5,700	10,200	10,200	10,200	10,200	10,200	10,200	10,200
Sub Total-Personnel	1,200	1,200	1,200	5,700	10,200	10,200	10,200	10,200	10,200	10,200	10,200
Accounting	300	0	0	300	0	0	300	0	0	300	0
Bank Service Charges	1,109	1,109	1,472	1,829	2,091	2,354	2,617	2,879	3,420	3,817	4,214
Insurance	180	180	180	180	180	180	180	180	180	180	180
Interest Expense	0	0	0	22,458	22,317	22,176	22,034	21,891	21,747	21,603	21,459
Legal Fees	100	100	100	100	100	100	100	100	100	100	100
Office Supplies	241	241	241	241	241	241	241	241	241	241	241
Professional Development	50	50	50	50	50	50	50	50	50	50	50
TOTAL FIXED EXPENSES	3,180	2,880	3,243	30,857	35,179	35,301	35,721	35,541	35,938	36,491	36,444
TOTAL EXPENSES	23,469	23,169	6,243	35,357	39,679	39,801	40,221	40,041	42,738	43,291	43,244
Interest Income	0	0	0	0	9,265	6,708	6,667	6,644	4,139	4,158	4,203
Other Income	-66	0	0	0	0	0	0	0	0	0	0
TOTAL OTHER INCOME	-66	0	0	0	9,265	6,708	6,667	6,644	4,139	4,158	4,203
PRE TAX INCOME	-1,348	-982	23,198	1,213	11,411	13,988	18,781	24,193	29,806	37,213	45,246



REVENUE	Jan-09	Feb-09	Mar-09	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09
Equipment Sales	6,800	6,800	6,800	6,800	6,800	6,800	6,800	6,800	-13,140	6,800	6,800
Services											
Internet Services	91,668	99,609	107,550	115,490	123,431	131,372	139,313	147,253	160,149	169,790	179,430
Installation & Labor	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	-3,285	1,700	1,700
TOTAL REVENUE	100,168	108,109	116,050	123,990	131,931	139,872	147,813	155,753	143,724	178,290	187,930
EXPENSES											
VARIABLE EXPENSES											
Hardware Costs	6,800	6,800	6,800	6,800	6.800	6,800	6.800	6,800	-13,140	6,800	6,800
Installation Costs	6,800	0,800	,	6,800	0,800	6,800	6,600	0,800	-13,140 -3,285	1,700	1,700
Internet Services	0	0	0	0	0	0	0	0		71,736	
	°	-	-	-	-	-	0	Ű	67,663	/	88,465
Total COGS	6,800	6,800	6,800	6,800	6,800	6,800	6,800	6,800	51,238	80,236	96,965
GROSS PROFIT	93,368	101,309	109,250	117,190	125,131	133,072	141,013	148,953	92,486	98,054	90,965
FIXED EXPENSES											
Payroll Expenses	11,220	11,220	11,220	11,220	11,220	11,220	11,220	11,220	11,220	11,220	11,220
Sub Total-Personnel	11,220	11,220	11,220	11,220	11,220	11,220	11,220	11,220	11,220	11,220	11,220
Accounting	300	0	0	300	0	0	300	0	0	300	0
Bank Service Charges	5,008	5,405	5,802	6,200	6,597	6,994	7,391	7,788	7,186	8,914	9,397
Insurance	180	180	180	180	180	180	180	180	180	180	180
Interest Expense	21,167	21,020	20,873	20,725	20,576	20,427	20,277	20,126	19,975	19,822	19,669
Legal Fees	100	100	100	100	100	100	100	100	100	100	100
Office Supplies	241	241	241	241	241	241	241	241	241	241	241
Professional Development	50	50	50	50	50	50	50	50	50	50	50
TOTAL FIXED EXPENSES	38,266	38,216	38,466	39,015	38,963	39,211	39,758	39,704	38,952	40,827	40,856
TOTAL EXPENSES	45,066	45,016	45,266	45,815	45,763	46,011	46,558	46,504	90,190	121,063	137,822
OTHER INCOME											
Interest Income	1,849	1,952	80	66	78	116	344	100	168	248	303
Other Income	0	0	0	0	0	0	0	0	0	0	0
TOTAL OTHER INCOME	1,849	1,952	80	66	78	116	344	100	168	248	303
PRE TAX INCOME	56,951	63,093	70,784	78,175	86,168	93,861	101,254	109,249	53,534	57,226	50,109



REVENUE	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10
Equipment Sales	6,800	5,660	5,100	4,540	3,960	3,400	2,840	2,260	1,700	1,140	560
Services											
Internet Services	198,712	206,736	213,967	220,403	226,018	230,838	234,864	238,069	240,479	242,095	242,889
Installation & Labor	1,700	1,415	1,275	1,135	990	850	710	565	425	285	140
TOTAL REVENUE	207,212	213,811	220,342	226,078	230,968	235,088	238,414	240,894	242,604	243,520	243,589
EXPENSES											
VARIABLE EXPENSES											
Hardware Costs	6,800	5,660	5,100	4,540	3,960	3,400	2,840	2,260	1,700	1,140	560
Installation Costs	1,700	5,660	1,275	4,540	3,960	3,400 850	2,840	2,260	425	285	140
Internet Services	104,980	1,415	113,039	116,440	119,406	121,952	124,079	125,772	127,045	127,899	128,319
Total COGS	113,480	116,294	119,414	122,115	124,356	121,952	124,079	125,772	127,045	127,899	128,319
	113,400	110,294	119,414	122,115	124,330	120,202	127,029	120,397	129,170	129,324	129,019
GROSS PROFIT	93,732	97,517	100,928	103,964	106,612	108,886	110,785	112,297	113,433	114,196	114,570
FIXED EXPENSES											
Payroll Expenses	12,342	12,342	12,342	12,342	12,342	12,342	12,342	12,342	12,342	12,342	12,342
Sub Total-Personnel	12,342	12,342	12,342	12,342	12,342	12,342	12,342	12,342	12,342	12,342	12,342
Accounting	300	0	0	300	0	0	300	0	0	300	0
Bank Service Charges	10,361	10,691	11,017	11,304	11,548	11,754	11,921	12,045	12,130	12,176	12,179
Insurance	180	180	180	180	180	180	180	180	180	180	180
Interest Expense	19,362	19,207	19,051	18,894	18,737	18,579	18,421	18,262	18,102	17,941	17,779
Legal Fees	100	100	100	100	100	100	100	100	100	100	100
Office Supplies	241	241	241	241	241	241	241	241	241	241	241
Professional Development	50	50	50	50	50	50	50	50	50	50	50
TOTAL FIXED EXPENSES	42,935	42,810	42,981	43,411	43,198	43,246	43,554	43,219	43,145	43,330	42,871
TOTAL EXPENSES	156,415	159,104	162,395	165,525	167,554	169,448	171,184	171,816	172,315	172,654	171,890
Interest Income	97	167	246	1	97	201	310	90	208	327	448
Other Income	0	0	0	0	0	0	0	0	0	0	0
TOTAL OTHER INCOME	97	167	246	1	97	201	310	90	208	327	448
PRE TAX INCOME	50,894	54,707	57,947	60,553	63,414	65,640	67,231	69,077	70,289	70,866	71,699



REVENUE	Jan-11	Feb-11	Mar-11	Apr-11	May-11	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11
Equipment Sales	0	0	0	0	0	0	0	0	0	0	0
Services											
Internet Services	242,889	242,889	242,889	242,889	242,889	242,889	242,889	242,889	242,889	242,889	242,889
Installation & Labor	0	0	0	0	0	0	0	0	0	0	0
TOTAL REVENUE	242,889	242,889	242,889	242,889	242,889	242,889	242,889	242,889	242,889	242,889	242,889
EXPENSES											
VARIABLE EXPENSES											
Hardware Costs	0	0	0	0	0	0	0	0	0	0	0
Installation Costs	0	0	0	0	0	0	0	0	0	0	0
Internet Services	128,319	128,319	128,319	128,319	128,319	128,319	128,319	128,319	128,319	128,319	128,319
Total COGS	128,319	128,319	128,319	128,319	128,319	128,319	128,319	128,319	128,319	128,319	128,319
GROSS PROFIT	114,570	114,570	114,570	114,570	114,570	114,570	114,570	114,570	114,570	114,570	114,570
FIXED EXPENSES											
Payroll Expenses	13,576	13,576	13,576	13,576	13,576	13,576	13,576	13,576	13,576	13,576	13,576
Sub Total-Personnel	13,576	13,576	13,576	13,576	13,576	13,576	13,576	13,576	13,576	13,576	13,576
Accounting	300	0	0	300	0	0	300	0	0	300	0
Bank Service Charges	12,144	12,144	12,144	12,144	12,144	12,144	12,144	12,144	12,144	12,144	12,144
Insurance	180	180	180	180	180	180	180	180	180	180	180
Interest Expense	17,454	17,290	17,126	16,961	16,795	16,628	16,460	16,292	16,123	15,953	15,783
Legal Fees	100	100	100	100	100	100	100	100	100	100	100
Office Supplies	241	241	241	241	241	241	241	241	241	241	241
Professional Development	50	50	50	50	50	50	50	50	50	50	50
TOTAL FIXED EXPENSES	44,045	43,581	43,417	43,552	43,086	42,919	43,051	42,583	42,414	42,544	42,074
TOTAL EXPENSES	172,364	171,900	171,736	171,871	171,405	171,238	171,370	170,902	170,733	170,863	170,393
Interest Income	97	167	246	1	97	201	310	90	208	327	448
Other Income	0	0	0	0	0	0	0	0	0	0	0
TOTAL OTHER INCOME	97	167	246	1	97	201	310	90	208	327	448
PRE TAX INCOME	70,622	70,989	71,153	71,018	71,484	71,651	71,519	71,987	72,156	72,026	72,496



### Annual Profit & Loss Projection 2007-2011

REVENUE	2007	2008	2009	2010	2011	TOTAL
Equipment Sales	20,601	52,700	61,660	37,960	0	172,921
Other Income	21,633	0	0	0	0	21,633
Services	,					,000
Internet Services	125,464	564,607	1,654,127	2,737,959	2,914,667	7,996,824
Installation & Labor	4,167	13,175	15,415	9,490	2,011,001	42,247
Contributions	.,	,	10,110	0,100		,
Unrestricted Contributions	969	0	0	0	0	969
Restricted Contributions	350	0	0	0	0	350
TOTAL REVENUE	173,184	630,482	1,731,202	2,785,409	•	8,234,944
	170,104	000,402	1,701,202	2,700,400	2,014,007	0,204,044
EXPENSES						
VARIABLE EXPENSES						
Reimbursed Expenses	-2,186	0	0	0	0	-2,186
Hardware Costs	42,432	52,700		37,960	0	194,752
Installation Costs	15,879	0_,0	1,815	9,490	0	27,184
Internet Services	144,719	40,578	321,083	1,446,469	1,539,824	
Total COGS	200,845	93,278	384,558	1,493,919	1,539,824	3,712,424
	200,010	00,210	001,000	1,100,010	1,000,021	0,712,121
GROSS PROFIT	-27,661	537,204	1,346,644	1,291,490	1,374,843	4,522,520
	27,001	007,204	1,040,044	1,201,400	1,07 4,040	4,022,020
FIXED EXPENSES						
Payroll Expenses	55,384	90,900	134,640	148,104	162,914	591,943
Sub Total-Personnel	55,384	90,900	134,640	148,104	162,914	591,943
Accounting	1,750	1,200	1,200	0	0	4,150
Bad Debt	0	0	0	0	0	0
Bank Service Charges	4,591	31,524	86,560	139,270	145,733	407,679
Dues & Subscriptions	886	01,021	00,000	0	0	886
Insurance	3,152	2,160	2,160	2,160	2,160	11,792
Interest Expenses	0,102	196,998	244,173	221,952	198,476	861,599
Legal Fees	0	1,200	1,200	1,200	1,200	4,800
Licenses and Permits	719	0	0	0	0	719
Marketing	1,989	0	0	0	0	1,989
Meals and Entertainment	416	0	0 0	0	0	416
Misc. Expenses	653	0	0	0	0	653
Office Supplies	2,888	2,888	2,888	2,888	2,888	14,440
Postage	405	2,000	_,000	2,000	2,000	405
Printing & Reproduction	13	0	0	0	0	13
Professional Development	239	600	600	600	600	2,639
Rent	1,240	000	000	000	000	1,240
Telephone	260	0	0	0	0	260
Travel	346	0	0	0	0	346
TOTAL FIXED EXPENSES	74,931	327,470	473,421	516,174	513,972	1,905,969
	. 1,001				0.0,012	1,000,000
TOTAL EXPENSES	275,776	420,748	857,979	2,010,093	2,053,796	5,618,393
	210,110			2,010,000	2,000,700	0,010,000
	-66	43,483	5,345	2,762	2,762	54,285
			0,040	2,702	2,102	07,200
PRE TAX INCOME	-102,658	253,217	878,567	778,077	863,633	2,670,836
	-102,000	200,217	070,007	110,011	003,033	2,070,030



### 2007 Cash Flow Statement

OPERATING ACTIVITIES	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07
Net Income	1,971	-2,797	-5,435	13,834	-15,542	-11,795	-5,702	-9,827	-21,769	-21,357	-26,539	2,299
Accounts Receivable	124	-80	1,698	-18,312	8,790	9,104	-277	-882	-780	-2,477	1,150	-5,657
Employee Advances	-140	0	0	0	0	0	0	0	0		0	0
Inventory Asset	0	0	0	0	0	0	0	0	0		0	0
Accounts Payable	-11,452	1,611	0	0	13,665	6,775	7,404	18,152	19,406	19,936	22,617	4,673
Payroll Liabilities	-19	928	1,170	750	1,468	1,634	-877	903	-1,588	1,234	0	0
Sales Tax Payable	13	1	0	1	13	37	175	401	214	185	261	243
NET CASH PROVIDED BY OPERATING	-9,502	-337	-2,567	-3,727	8,393	5,755	722	8,747	-4,518	-2,478	-2,511	1,558
INVESTING ACTIVITIES												
Network Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0
Office Equipment	0	0	-485	-467	0	0	-68	-245	0	0	0	0
NET CASH PROVIDED BY INVESTING	0	0	-485	-467	0	0	-68	-245	0	0	0	0
FINANCING ACTIVITIES												
Opening Bal Net Assets	-143	0	0	0	0	0	0	0	0	0	0	0
Bank Financing	16,543	-139	0	-264	-3,258	-30	-7,881	-5,000	0	0	0	0
NET CASH PROVIDED BY FINANCING	16,400	-139	0	-264	-3,258	-30	-7,881	-5,000	0	0	0	0
NET CASH INCREASE FOR PERIOD	6,898	-476	-3,052	-4,459	5,135	5,725	-7,227	3,502	-4,518	-2,478	-2,511	1,558
CASH AT END OF PERIOD	12,968	12,493	9,441	4,982	10,117	15,842	8,615	12,117	7,599	5,121	2,610	4,168



OPERATING ACTIVITIES	Jan-08	Feb-08	Mar-08	Apr-08	May-08	Jun-08	Jul-08	Aug-08	Sep-08	Oct-08	Nov-08	Dec-08
Net Income	-1,348	-982	23,198	1,213	11,411	13,988	18,781	24,193	29,806	37,213	45,246	50,498
Accounts Receivable	7,600	0	0	0	0	0	0	0	0	0	0	0
Employee Advances	0	0	0	0	0	0	0	0	0	0	0	0
Inventory Asset	0	0	0	0	0	0	0	0	0	0	0	0
Accounts Payable	0	0	-102,786	0	0	0	0	0	0	0	0	0
Payroll Liabilities	1,200	-1,200	0	0	0	0	0	0	0	0	0	0
Sales Tax Payable	-1,545	0	0	0	0	0	0	0	0	0	0	0
NET CASH PROVIDED BY OPERATING	5,907	-2,182	-79,588	1,213	11,411	13,988	18,781	24,193	29,806	37,213	45,246	50,498
INVESTING ACTIVITIES												
Network Infrastructure	0	0	-2,000,000	0	0	-750,000	0	0	-750,000	0	0	-750,000
Office Equipment	0	0	0	0	0	0	0	0	0	0	0	0
NET CASH PROVIDED BY INVESTING	0	0	-2,000,000	0	0	-750,000	0	0	-750,000	0	0	-750,000
FINANCING ACTIVITIES												
Opening Bal Net Assets	0	0	0	0	0	0	0	0	0	0	0	0
Bank Financing	0	0	4,900,000	-30,660	-30,801	-30,942	-31,084	-31,227	-31,371	-31,515	-31,659	-31,805
NET CASH PROVIDED BY FINANCING	0	0	4,900,000	-30,660	-30,801	-30,942	-31,084	-31,227	-31,371	-31,515	-31,659	-31,805
NET CASH INCREASE FOR PERIOD	5,907	-2,182	2,820,412	-29,447	-19,390	-766,954	-12,303	-7,034	-751,565	5,698	13,587	-731,307
CASH AT END OF PERIOD	10,075	7,893	2,828,305	2,798,858	2,779,468	2,012,514	2,000,211	1,993,177	1,241,612	1,247,310	1,260,897	529,590



OPERATING ACTIVITIES	Jan-09	Feb-09	Mar-09	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09
Net Income	56,951	63,093	70,784	78,175	86,168	93,861	101,254	109,249	53,534	57,226	50,109	54,667
Accounts Receivable	0	0	0	0	0	0	0	0	0	0	0	0
Employee Advances	0	0	0	0	0	0	0	0	0	0	0	0
Inventory Asset	0	0	0	0	0	0	0	0	0	0	0	0
Accounts Payable	0	0	150,000	-50,000	-50,000	-50,000	0	0	0	0	0	0
Payroll Liabilities	0	0	0	0	0	0	0	0	0	0	0	0
Sales Tax Payable	0	0	0	0	0	0	0	0	0	0	0	0
NET CASH PROVIDED BY OPERATING	56,951	63,093	220,784	28,175	36,168	43,861	101,254	109,249	53,534	57,226	50,109	54,667
INVESTING ACTIVITIES												
Network Infrastructure	0	0	-750,000	0	0	0	0	-449,356	0	0	0	0
Office Equipment	0	0	0	0	0	0	0	0	0	0	0	0
NET CASH PROVIDED BY INVESTING	0	0	-750,000	0	0	0	0	-449,356	0	0	0	0
FINANCING ACTIVITIES												
Opening Bal Net Assets	0	0	0	0	0	0	0	0	0	0	0	0
Bank Financing	-31,951	-32,098	-32,245	-32,393	-32,542	-32,691	-32,841	267,008	-33,143	-33,296	-33,449	-133,602
NET CASH PROVIDED BY FINANCING	-31,951	-32,098	-32,245	-32,393	-32,542	-32,691	-32,841	267,008	-33,143	-33,296	-33,449	-133,602
NET CASH INCREASE FOR PERIOD	25,000	30,995	-561,461	-4,218	3,626	11,170	68,413	-73,099	20,391	23,930	16,660	-78,935
CASH AT END OF PERIOD	554,590	585,585	24,123	19,906	23,532	34,701	103,115	30,016	50,407	74,337	90,997	12,062



OPERATING ACTIVITIES	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10
Net Income	50,894	54,707	57,947	60,553	63,414	65,640	67,231	69,077	70,289	70,866	71,699	71,896
Accounts Receivable	0	0	0	0	0	0	0	0	0	0	0	0
Employee Advances	0	0	0	0	0	0	0	0	0	0	0	0
Inventory Asset	0	0	0	0	0	0	0	0	0	0	0	0
Accounts Payable	0	0	0	0	0	0	0	0	0	0	0	0
Payroll Liabilities	0	0	0	0	0	0	0	0	0	0	0	0
Sales Tax Payable	0	0	0	0	0	0	0	0	0	0	0	0
NET CASH PROVIDED BY OPERATING	50,894	54,707	57,947	60,553	63,414	65,640	67,231	69,077	70,289	70,866	71,699	71,896
INVESTING ACTIVITIES												
Network Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0
Office Equipment	0	0	0	0	0	0	0	0	0	0	0	0
NET CASH PROVIDED BY INVESTING	0	0	0	0	0	0	0	0	0	0	0	0
FINANCING ACTIVITIES												
Opening Bal Net Assets	0	0	0	0	0	0	0	0	0	0	0	0
Bank Financing	-33,756	-33,911	-34,067	-134,224	-34,381	-34,539	-34,697	-134,856	-35,016	-35,177	-35,339	-35,501
NET CASH PROVIDED BY FINANCING	-33,756	-33,911	-34,067	-134,224	-34,381	-34,539	-34,697	-134,856	-35,016	-35,177	-35,339	-35,501
NET CASH INCREASE FOR PERIOD	17,138	20,796	23,880	-73,671	29,033	31,101	32,534	-65,779	35,273	35,689	36,360	36,395
CASH AT END OF PERIOD	29,200	49,996	73,876	205	29,238	60,339	92,873	27,094	62,367	98,056	134,416	170,811



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OPERATING ACTIVITIES	Jan-11	Feb-11	Mar-11	Apr-11	May-11	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11
Net Income	50,894	54,707	57,947	60,553	63,414	65,640	67,231	69,077	70,289	70,866	71,699	71,896
Accounts Receivable	0	0	0	0	0	0	0	0	0	0	0	0
Employee Advances	0	0	0	0	0	0	0	0	0	0	0	0
Inventory Asset	0	0	0	0	0	0	0	0	0	0	0	0
Accounts Payable	0	0	0	0	0	0	0	0	0	0	0	0
Payroll Liabilities	0	0	0	0	0	0	0	0	0	0	0	0
Sales Tax Payable	0	0	0	0	0	0	0	0	0	0	0	0
NET CASH PROVIDED BY OPERATING	50,894	54,707	57,947	60,553	63,414	65,640	67,231	69,077	70,289	70,866	71,699	71,896
INVESTING ACTIVITIES												
Network Infrastructure	0	0	0	0	0	0	0	0	0	0	0	0
Office Equipment	0	0	0	0	0	0	0	0	0	0	0	0
NET CASH PROVIDED BY INVESTING	0	0	0	0	0	0	0	0	0	0	0	0
FINANCING ACTIVITIES												
Opening Bal Net Assets	0	0	0	0	0	0	0	0	0	0	0	0
Bank Financing	-35,664	-35,828	-35,992	-36,157	-36,323	-36,490	-36,658	-36,826	-36,995	-37,165	-37,335	-37,507
NET CASH PROVIDED BY FINANCING	-35,664	-35,828	-35,992	-36,157	-36,323	-36,490	-36,658	-36,826	-36,995	-37,165	-37,335	-37,507
NET CASH INCREASE FOR PERIOD	15,230	18,879	21,955	24,396	27,091	29,150	30,573	32,251	33,294	33,701	34,364	34,389
CASH AT END OF PERIOD	27,292	46,171	68,126	92,522	119,613	148,763	179,336	211,587	244,881	278,582	312,946	347,335



### Annual Cash Flow Projection 2007-2011

OPERATING ACTIVITIES	2006	2007	2008	2009	2010	2011	TOTAL
Net Income	-8674.74	-102,658	253,217	875,071	774,213	774,213	2,574,056
Accounts Receivable	-2243.45	-7,600	7,600	0	0	0	0
Employee Advances	-3707.51	-140	0	0	0	0	-140
Inventory Asset	0	0	0	0	0	0	0
Accounts Payable	13243.42	102,786	-102,786	0	0	0	0
Payroll Liabilities	1566.53	5,602	0	0	0	0	5,602
Sales Tax Payable	0	1,545	-1,545	0	0	0	0
NET CASH PROVIDED BY OPERATING	184.25	-464	156,486	875,071	774,213	774,213	2,579,519
INVESTING ACTIVITIES							
Network Infrastructure	0	0	-4,250,000	-1,199,356	0	0	-5,449,356
Office Equipment	600	-1,265	0	0	0	0	-1,265
NET CASH PROVIDED BY INVESTING	600	-1,265	-4,250,000	-1,199,356	0	0	-5,450,621
FINANCING ACTIVITIES							
Open Bal Net Assets	0	-143	0	0	0	0	-143
Bank Financing	0	-30	4,618,936	-193,243	-615,464	-438,940	3,371,259
NET CASH PROVIDED BY FINANCING	0	-173	4,618,936	-193,243	-615,464	-438,940	3,371,116
NET CASH INCREASE FOR PERIOD	784	-1,902	525,422	-517,528	158,749	335,273	500,014
CASH AT END OF PERIOD	784	-1,118	524,304	6,776	165,525	500,798	500,798



	END	END	END	END	END	
ASSETS	2007	2008	2009	2010	2011	
Current Assets						
Cash	-1,118	524,304	6,776	165,525	500,798	
Accounts Receivable	7,600	0	0	0	0	
Other Current Assets	140	140	140	140	140	
Total Current Assets	6,622	524,444	6,916	165,665	500,938	
Fixed Assets						
Network Infrastructure	0	4 250 000	5,449,356	5,449,356	5,449,356	
Office Equipment	1,265		1,265			
Total Fixed Assets	1,265	4,251,265	5,450,621			
TOTAL ASSETS	7.887	4,775,709	5,457,537	5,616,286	5,951,559	
	,	.,,	-,,	_,,	-,,	
LIABILITIES & EQUITY						
Current Liabilities						
Accounts Payable	102,786	0	0	0	0	
Payroll Liabilities			-	5,602	5,602	
Bank Debt			4,425,663			
Sales Tax Payable	1,545			0,010,100	0,011,200	
Total Current Liabilities			4,431,266	3,815,802	3,376,862	
Long Term Liabilities						
Opening Balance Net Assets	-143	-143	-143	-143	-143	
Total Long Term Liabilities	-143		-			
5						
TOTAL LIABILITIES	109,761	4,624,366	4,431,123	3,815,659	3,376,719	
EQUITY						
Retained Earnings	784	-101.874	151,343	1,026,414	1,800,627	
Distributions	0	· · · · · ·	0		0	
Pre-Tax Income (Current Year)	-			774,213	774.213	
TOTAL EQUITY			1,026,414			
	7 007	4 775 700		E 610 000		
TOTAL LIAB. & EQUITY	7,887	4,775,709	5,457,537	5,616,286	5,951,559	