

## 1.0 Executive Summary

Having evolved to the delivery of a continuous wireless internet connection to commuter trains, Wildfire Wireless began in the first business course of the Kaplan Fellows Program at the Illinois Institute of Technology as a rough idea in a business plan assignment. Its evolution through the Kaplan Fellows classes led to the creation of an EnPRO (Entrepreneurial Interprofessional Project) in the fall of 2005, with the objective of turning the idea into a profitable business. Today, emerging from its second semester as an EnPRO, Wildfire Wireless is on the verge of launch as a stand-alone company in the summer of 2006.

Since its conception, Wildfire Wireless has had the opportunity to work with a number of successful advisors and industry professionals including: Jim Braband, Robert Anderson, Dennis Roberson and Jay Fisher from IIT, Entrepreneurs Chris Gladwin of CleverSafe, Bill Shipley of Air2Access, and Chris Herzog of Software Technology Group, as well as Orlando Saez of Concourse Communications. Each of these individuals have contributed to our development, understanding and growth as a company. In the past semester, we have had a solid team of seven enthusiastic young people from diverse educational and cultural backgrounds. The team members represent Asia, Europe, Africa and America, and a variety of educational fields – Mechanical, Materials and Aerospace Engineering, Business Administration, Electrical and Computer Engineering, Chemical Engineering and Information Technology and Management. These differences have joined us in ways that have proven tremendously beneficial to the start-up environment.

Together, the Wildfire Wireless team aims to alleviate a few core needs of business professionals, manufacturers, and urban train systems. We have recognized a lack of quality internet solutions available to domestic commuters despite the existence of hardware to meet that need available outside of the USA, as well as the dependency of urban train lines on subsidy for survival. Our initial focus is the Metra commuter train system in Chicago, particularly the BNSF line as it embodies the perfect market to utilize wireless internet connectivity to and from work on a daily basis. This is evident from market research that indicates a majority of people who ride this line are business professionals who currently own wireless devices.

In the past two semesters, we have conducted two rounds of market research resulting in a confirmation of our initial market assumptions. We discovered that commuters exhibit a desire for internet connectivity during their commutes and found that 5% of the population surveyed in our round two of market research would convert to a preference of riding the Metra as opposed to driving strictly as a result of our service becoming available. We have received validation in the actions of other companies in industry including Concourse Communications' delivery of internet in airports and prototype on the South Shore trains, Air2Access' wireless services in marinas, and the development of hardware capable of delivering internet on a moving train being implemented in other countries where mass transit is more dominant.

In this industry, there exists a divide between hardware manufacturers, who developing new technology, and service providers, who deliver these technologies to consumers. The reason for such a divide is that it is too capital intensive for a company to be on both sides of the fence and they typically excel at one or the other, forming relationships to serve the end-user. Technologies in this space exist to some extent that can satisfy our target market, but only in a limited/stationary manner or for a high price. It is also very often too difficult for service providers to extend into new markets and services beyond that in which they compete because competition and retention of existing consumers is typically the priority.

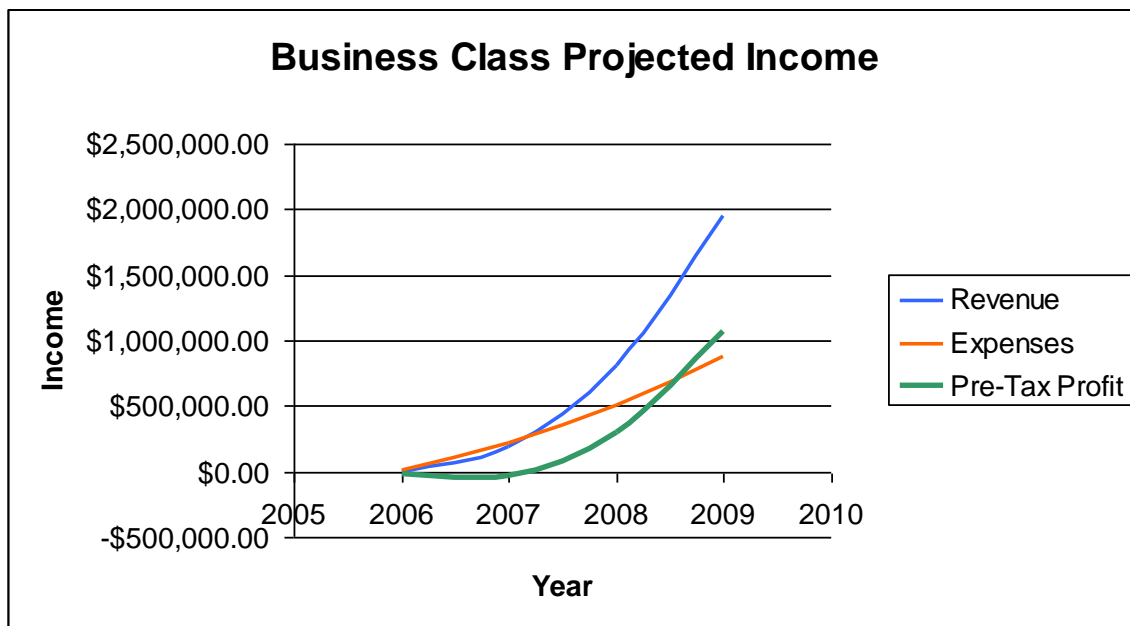
With this format of industry and the emergence of technology that can deliver a data connection on a moving train, Wildfire Wireless recognizes that there currently exists no channel for distribution of such equipment in the United States, and thus, no means of implementation, resulting in an untapped consumer base. It is this gap in industry, along with the inability of an urban rail system to take the capital risk in this space, which we will fill as a *value added solution manager* through the purchase, implementation and management of wireless networks to deliver connectivity to commuter rail lines and ultimately satisfy the needs of daily commuters. We require extensive cooperation of the rail line to achieve this

solution through installation logistics of hardware on trains and rooftop real estate for antennae at train stations as well as handling customers in the Business Class Model and granting us exclusive broadcasting rights within the trains.

Working in this partnership has its benefits, including yielding the rail service a share of the profit generated from passengers utilizing our service, adding additional profit from new passengers converted from other modes of commuting, bolstered loyalty of passengers, and access to a number of future cost-reducing, safety enhancing services that we have begun to explore that would utilize our service for the benefit of the rail system. Consumers would benefit from our service through gains in productivity and access to entertainment avenues, while hardware suppliers benefit from the new distribution channel that we are creating.

The major advantage that Wildfire Wireless exhibits is our development of a profitable model for the delivery of internet access in trains. Industry has shown, with the struggle of hot-spot providers and as indicated by Concourse Communications, that the sale of Wi-Fi is tough to make profitable. This is evident in our financial forecasts of the "Full Model" representing the open sale of Wi-Fi on trains for a monthly fee to passengers. We have developed the "Business Class Model" which limits locations on the train that have wireless access to cars deemed "business class", access to which would require an additional charge but be accompanied by free wireless internet and a potentially more comfortable environment.

With the implementation of a "Business Class Model", a Metra fare increase of \$1.50 on a round trip fare (current cost is around \$4) would be put into operation. We would employ a revenue sharing model where the Metra would receive 25% of the total profits, with Wildfire Wireless getting the other 75%. With a 3.5% initial penetration rate on the BNSF, the largest of the Metra lines with 26,000 daily roundtrips, in the first full year of operation followed by a 7% penetration rate of two train lines (growth in the BNSF and the addition of another line), Wildfire Wireless would run in the green by the second full year of operation, as can be seen by the Business Class Projected Income graph below. In the third year of full operation, 2009, Wildfire Wireless plans to add two additional train lines, bringing the total up to four.



As we progress as a team and a company, we exhibit the need to expand and hire people whose technical experience can further develop our vision. Shortly after posting job openings on an erecruiting account through IIT's Career Development Center, we were flooded with over 40 applications for the five to eight positions we are looking to fill. With such a technical backing, we will be able to prove ourselves through a product demonstration that will be funded through friends, family and colleagues. From here, we will be presenting an established front that will allow us simplified access to other sources of seed funding.

In the demonstration of our service, we hope to gain commitment from the Metra and the airspace to implement internet networks on a wider range of train cars. We are applying for the formation of an IPRO in the fall to explore future services that we may be able to offer, such as a rider statistic reporting system, improved forms of advertising on trains and enhanced security and safety using the technology already in place.

## **1.1 Objectives**

- First round friends and family or grant funding
- Successful demonstration of our solution to deliver Internet on a moving train
- Full-scale installation of solution on a commuter train system
- Expansion of coverage to additional train lines
- Acquisition of first customers purchasing Internet on a train
- Expansion of the solution to include various enhanced revenue generating services and features

## **1.2 Mission**

Merging breakthrough telecommunication opportunities, Wildfire Wireless aims to provide commuter train systems and users aboard those trains the ability to take full advantage of their commutes through a cost-effective hardware/software solution allowing them access to real-time, seamless wireless communication channels.

## **1.3 Keys To Success**

The keys to success in our business are:

- Customer relationship and adaptability to unique customer needs, including a commitment to providing versatility in enhanced solutions.
- Deliverance of a high-bandwidth solution without commitment to a particular manufacturer allowing for the support of enhanced solutions beyond Internet access for commuters.
- Obtaining an airspace agreement to exclusive broadcasting rights within Metra airspace.

## **2.0 Company Summary**

Wildfire Wireless began as a business plan in the first Kaplan Fellows EnPRO (entrepreneurial interprofessional project) focusing on the development of wireless networks that offer seamless, high-rate data transfers on mobile devices, as well as bridging the last mile to the consumer in un-served areas. In the past semesters, the team has conducted considerable research into various service providers as well as implementation models ranging from transportation companies to office buildings and personal devices. Market research has shown considerable demand for internet connectivity on trains at a consumer level, and initial Metra and RTA contacts have exhibited enthusiasm for the potential of our services in a commuter environment and insights have lead to the evolution of the business model in that regard.

Filling a distribution gap for manufacturers and addressing the needs of two consumer bases, Wildfire Wireless serves as a value-added solution manager, implementing and managing seamless IP-based networks in the train commuter industry. Based out of an IIT office, the company is run by a few students emerging from the Kaplan Fellows Program, and the seed capital requirement will initially be subsidized by a combination of grant and friends and family money. This team will manage the implemented hardware, delivering wireless internet to consumers, and also work to develop additional revenue generating service enhancements for the train systems.

## **2.1 Company Ownership**

Emerging from an IIT EnPRO, any future ownership by students exists in demonstration of commitment to the project. At the onset of the Summer of 2006, the company will consist of three Principals: Christopher L. Jones, Karina Powell and Andrei Pop, each of whom will be continuing with the company. In addition to these principals, first round

investors and IIT will control portions of the company. The remaining shares will be used to subsidize employees and potentially hire an additional Principal.

Based on a \$200,000 post-money evaluation, a \$30,000 first round, and beginning with 100,000 shares, we have:

IIT	10000 shares
Investors	15000 shares
Chris	30000 shares
Andrei	16000 shares
Karina	11000 shares
Other	18000 shares

Vestment Schedule:

- 20% immediately
- 20% every 6 months

The "Other" category will be used to subsidize Summer hires; we have speculated offering \$7 + 2 shares per hour (each share is worth \$2 - see above) which would total 960 shares per Summer hire assuming 40 hours per week over 12 weeks. So for example, if we plan on hiring 2 people for the Summer, it would amount to 1920 shares of equity, leaving 16800 for additional hires, including the possibility of another Principal. After finalizing Summer employment, when we draw up the company ownership we can redistribute the shares as we see fit, either eliminating the other shares or distributing them among the existing owners. Another possibility is to pay the student workers a weekly food stipend, which would amount to approximately the same amount.

## 2.2 Startup Summary

<b>Wildfire Wireless Startup Funding</b>	
<i>Funding Source:</i>	<i>Potential Raised:</i>
NCIIA Grant	\$20,000.00
IIT	\$0.00
Friends & Family	\$10,000.00
<b><i>Total Potentially Raised:</i></b>	<b><i>\$30,000</i></b>

In order to get Wildfire Wireless off the ground, we need to raise startup capital of around \$30,000. This is in order to cover the costs of the initial demo on the BNSF train line, along with the renting of office facilities and other miscellaneous costs associated with a startup company.

## 3.0 Product and Services

### 3.1 Product and Service Description

Wildfire wireless will provide a mobile internet access. The majority of the Metra commuters are business executives working in downtown Chicago. Having access to internet connection while they commute to and from work will help them utilize their time efficiently and thus improve their work productivity. With increased number of devices being internet enabled, having internet access is fast becoming a necessity. The current pricing model for our service is that of having a business class car on the train line, which the commuter would pay at least \$1.50 extra for a round trip ticket. On this car would be free Wi-Fi access and more comfortable seats. According to our survey results, over 85% of business commuters commute five days a week, which makes an average total of 20 trips in 4 weeks.

## **3.2 Competitive Comparison**

Our service is unique to Chicago, as we will be pioneers in providing mobile internet connectivity on trains. Surveys conducted indicate a high demand for this service on trains and for these consumers one current alternative is EVDO network cards from cellular providers. EVDO cards provide roaming internet access at dial-up speeds and less than dial-up reliability. Our prices are much lower than the mobile services offered by Verizon or T-Mobile, of which you have to purchase their expensive equipment and be a customer of the provider.

Given that manufacturers of hardware we will be implementing exist, a train company with the motivation and technical prowess could pursue an internal project to develop an internet delivery service. Observing the Metra's forecasted capital projects for the next 4 years, no such projects exist, and while the project may pose a potential revenue opportunity, the initial capital risk is beyond what train companies are typically willing to take. As a company offering this service, Wildfire Wireless manages and maintains these networks and also looks to provide future service enhancements that train companies do not have the staff or structure to support.

Hotspots in the area provide a stationary, slow and expensive internet connection, with a typical Verizon Hotspot providing a download speed of only 60-80Kbps. To utilize these locations, commuters are required to arrive early to the station and connect in often over-crowded venues. Our internet connection allows the commuter to access internet on the train while the Hotspots only provide a connection at the station itself.

Internet access is offered through similar models to ours in airports and marinas through Concourse Communications and Air2Access. Both companies have the potential to offer services akin to our own, but neither company has realized strategies that may yield profit in the train industry, leading to a competitive edge for our company. Concourse is currently pursuing a demonstration of a wireless connectivity solution on the South Shore trains, but the project does not fall into the scope of their business and they, therefore, have no plans to pursue further development.

## **3.3 Fulfillment**

We plan for the implementation of a working prototype onto the Metra train system to be co-sponsored between Metra and ourselves. Wildfire Wireless will experience the initial capital risk and the installation of equipment and real-estate required for antennae will be Metra-sponsored. We will manage the installation and connection of all access points along the tracks, some of which may be installed in Metra facilities, which is the ideal scenario, reducing the overall cost of the implementation. Most of the hardware is relatively comprehensive to install and we will supply the talent for the operation.

Our products and services are a combination of third-party hardware solutions purchased from manufacturers to fit our purpose. These third-party hardware solutions will be combined to create our overall solution through direct collaboration with train companies and, in this way, specific functional needs can be met with accuracy.

Once we gain a foothold in our market, we will reevaluate the hardware required to fit our needs, including the addition of solutions for increased value to the customer. These solutions will be tailored to either provide an added service to the train company or to allow them to better serve their customers. In addition, these experiences will place us in a position to make recommendations and leverage industry toward the development of better hardware to fit market needs.

Our first objective is to deliver internet service to riders on the train. After this is achieved, we be in a position to develop other solutions that would benefit the train company. Such solutions would include train hardware monitoring, rider statistic reporting, and a new fare infrastructure, which are discussed in depth in section 3.5.

Through the upcoming Summer, a prototype and demo will be executed and discussion with Metra regarding the implementation tactic will ensue – business class vs. full scale implementation – and additional implementation logistics will be better understood.

### **3.4 Technology**

The core of our product and service is dependent on currently available wireless technologies; future changes in technology and our ability to utilize them plays a significant role in our ability to sustain a competitive advantage. Our solution must be dynamic enough to accommodate advancing technologies and our relationship with manufacturers has to be solid enough to allow us ongoing support and access to up-and-coming technology.

With each significant technological advancement, we will have the opportunity to add value, features, and functionality to currently deployed infrastructures. Implementing these advancements allows us to maintain our competitive edge, to further satisfy our direct and indirect customers, and to provide new services to existing and prospective customers, thereby enhancing our revenue model.

In addition to technology's impact on current customers, advancing technologies may give us opportunities to diversify our target market and explore alternate business models and additional revenue sources.

Given the success of the implementation of solutions on our first train system, our foothold in the industry will allow us to lobby for the development of more advanced wireless technologies that would allow for the development of solutions that would otherwise be considered impossible.

### **3.5 Future Products and Services**

After a successful initial implementation, we will begin expansion to additional train lines. As we gain customers, we will begin to upgrade our hardware in phases that depend on milestones and demand. After each milestone, bandwidth would be increased, network hardware would be upgraded, and the overall system would be re-evaluated to verify that customer needs have been met.

While our current focus revolves around a controlled environment model, we also consider the possibility of diversifying our target market and extending our service to other models including the corporate office/institution and single user model.

Within bounds of our current model, once a solution is established in a region, a team of innovators will remain with a sole purpose of discovering ways to enhance and upgrade the currently deployed infrastructure. This continual improvement will increase our quality of service and competitive edge. Given the existing relationships with customers at the time, these upgrades would augment our overall solution package.

Several of the future services we have explored are included here:

#### *Card access:*

The rider statistic reporting system would be developed through contract employees and the IIT IPRO system as an infrastructure that would allow the train company to continuously monitor rider statistics such as duration of commute, rider population per train during a specific time of day, and which train stations are used more frequently. This could also be used as a form of security, allowing the train company to make a more educated decision in the event of a disaster, knowing the locations of each train and how many people would be on that train at any given time. Riders would carry digital cards that would be scanned by conductors, with fares purchased

online or through a kiosk at the train station, eliminating the need for inefficient punch cards and micromanagement by conductors.

#### *Advertisements:*

With broadband wireless implementation, we have the capability to deliver streaming video anywhere within a train. Taking advantage of this capability, we can install LCD screens on the trains or stations to provide commercial advertisements. These ads can be locally targeted to a captive and predictable audience and will enable focused advertisements applicable at various points on the commute. In times of crises and emergencies, these screens can be used to display alerts and warnings and also inform the passengers of the security measures to be taken. These screens will also serve as a visual aid to those who are hearing impaired. Thus regular announcements regarding train stops and train company facilities can be effectively delivered.

Advertisements will also be displayed on a splash page viewed by all users who log on to the internet. Click through ads on this splash page can also be locally targeted in real-time conjunction with train position. Although typically less than desirable, advertising space can also be sold on our company website.

#### *Security and Safety:*

Security cameras can be installed in the train stations, on the trains and, utilizing the connection, live data can be fed to a centralized monitoring facility to ensure passenger safety on the trains at all time. Cameras can also be installed on the train tracks allowing train operators to monitor live track conditions before they approach a particular section of the track. This will prevent train accidents due to bad track conditions and/or weather conditions.

#### *Monitor wear and tear:*

Sensors will be installed on different train components which will report live hardware conditions. Thus, train line maintenance staff can regularly monitor the train cars and tend to any maintenance issues encountered. This service would allow the train company to continuously monitor the status of train components such as engines, brakes, and wheels to increase the up-time of hardware and thus, reduce costs. Such sensors have been attempted on semi-trucks by an IIT alumni run company, Software Technologies Group.

#### *Customer Service:*

We plan to outsource level one call-center customer service to a professional company. We will provide information to help their staff answer basic questions regarding how to access our service. We will have point people on our team who will be on call around the clock to tend to complicated situations which cannot be dealt by our call-center. These professionals will also troubleshoot network failures.

## **4.0 Target Market Segment Strategy**

We are presently focusing our efforts in the Chicagoland area because of its highly traveled and accessible train lines. We will be focusing on the Metra as our primary market, as its consumers represent our target market and will be more likely to utilize wireless internet access. A significant number of the population considered to be "business professionals" commute to and from downtown via the Metra on a regular basis. With our solution to internet access being most reliable and useful to those who would enjoy the convenience of either entertainment or increased productivity traveling to and from work, it would be most profitable for us to focus our efforts on the consumers of the Metra.



## 4.1 Market Segmentation

Marketing Figure 1

Market Analysis								
		2003	2004	2005	2006	2007	2009	2010
Potential Customers	Growth							
<u>BNSF</u>	3.3%	52,479	54,210	55,998	57,846	59,755	61,728	63,765

We predict that our consumer base will grow at a rate of 3.3% each year as consumers as well as potential consumers become more familiar with our brand and services. With the BNSF totaling 52,479 passengers in 2003, we are aiming for our services to be utilized by a total of at least 63,765 passengers by the year 2010.

## 4.2 Target Market Segment Strategy

### 4.2.1 National – Choosing Chicago

We are aiming to be most productive by implementing our solution on local train lines running through the Chicagoland area which we feel contains our most profitable consumer base. Focusing on Metra train lines rather than focusing on other train lines throughout the nation, such as Amtrak, appears to be much more beneficial to our ability to generate a significant amount of revenue from our services since the Metra deals with a more consistent and steady consumer base.

Wildfire Wireless will target the Metra as its main source of consumption taking into consideration the vast amount of commuters that travel the Metra daily to and from work. The Metra accounted for an average of 268,381 riders daily in the year 2000, which ranked 3<sup>rd</sup> highest during a survey of 14 various selected train lines throughout the nation. It is one of the more established commuter rail systems and totaled 72.3 million passengers annually in the year 2000.

*See Marketing Figures 2 & 3 in the Appendix*

### 4.2.2 Chicago – Choosing Metra

We also took into consideration that the Metra lines have a shorter distance than lines run by Amtrak allowing us to cover the complete track with our solution for a lower initial investment. The Metra will be more profitable than other local Chicago transportation organizations, such as the CTA, since the Metra's consumer base consists of a significant number of individuals carrying wireless devices during their commute and the Metra environment is also more conducive to the utilization of those devices.

*See Marketing Figure 4 in the Appendix*

### 4.2.3 Metra – Choosing BNSF

The BNSF Line consists mostly of our target market of fulltime business commuters. It had the most total passenger boardings (52,479) in 2002. In addition, it also has the second greatest number of stops and was rated first in rider satisfaction on the condition of train cars and stations in regards to cleanliness and comfort. It operates through an

area which consists of one of the highest percentages of people who take the train to work. This area also contains one of the highest rates of Per Capital Income.

*See Marketing Figures 5 - 8 in the Appendix*

#### **4.2.4 BNSF – Target Market**

Even though the Metra does not account for nearly as much as a percentage of the RTA ridership as the CTA Rail or Bus service, we feel that the Metra consists of a consumer base that will more adhere to our product than the consumers of the CTA. Metra's overall commuter experience provides its commuters with an environment comfortable, quiet, and safe enough to allow them to enjoy the convenience of using laptops and other wireless devices during their commute. Also, considering the fact that our target consumer who has an average ride of 15 minutes or more would be more likely to use the Metra than other transportation services, it would be most beneficial for us to concentrate our efforts towards the Metra. These individuals will most likely have full-time occupations, ranging from the ages of 18 yrs and older.

*See Marketing Figure 9 in the Appendix*

#### **4.2.5 Market Needs**

As a convenience to the average commuter, it can be arguably concluded that we will not satisfy the "needs" of our potential consumer base but will instead provide them with the ability to capitalize on their free time spent while riding the train. With many commuters spending close to an average of an hour a day riding to and from their destinations, accumulating to a total of at least 5 hours a business week, our service will give commuters the opportunity to make the most of their leisure time during their commute to either increase their level of productivity or entertain themselves via access to the internet (which serves as an incredible convenience to our target market). Also, with our plans to implement such enhancements, stemming from our core internet services, such as security cameras, digital ticket scanning systems, and other forms of consumer tracking devices and cost-reduction services, we will be able to provide the Metra with the particular information necessary in order to allow the them to more effectively, and efficiently serve their consumer base.

#### **4.2.6 Market Trends**

With the average population becoming more internet savvy, along with the advancements in wireless devices becoming more accessible, and considering the fact that the internet is increasingly affecting the everyday lives of the general population, we predict that our service will not only significantly contribute to but also compliment the effect that the internet is beginning to have on the everyday lives of the general population.

#### **4.2.7 Market Growth**

With the rates of gas steadily increasing, it is safe to conclude that there will be a noticeable increase in the usage of public transportation by the everyday commuter. We also predict that the present construction taking place on the Dan Ryan and its effect on the Red Line will directly affect the number of everyday commuters making the Metra their choice of transportation, which could significantly increase our potential consumer base.

### **4.3 Service Business Analysis**

Internet service providers have different means of reaching their customers due to the fact that the customers that they cater to have different needs. The best way to make money in this industry is to create multiple options for the potential buyer. For example, bigger companies have the ability to launch satellites that give them a direct web hosting opportunity. They can then sell out this opportunity to other companies that set up receivers that connect to these satellites. The

specificity comes in when we get to the point of providing the final user with internet access. Wildfire Wireless connects between the manufacturers that provide general hardware and software solutions for internet access, and the end user.

Companies like Comcast provide home internet solutions that can be adapted for other controlled units like office buildings. Now, there is an increase in the solutions for users who require mobility. A number of companies have ventured into outdoor and mobile internet services, and the successes that they have experienced confirms that a lot more people appreciate a source of increased productivity in whatever way possible.

The most direct competitor we have is Concourse Communications. This company started off by providing internet hot spots in airports. Besides the increasing number of business travelers, travelers who are making leisure trips have their laptops at-hand, in the event of a delayed flight. Concourse has ventured into mobile environments and the company intends to test internet access on the South Shore Trains in Chicago. They have no plans at this time to expand onto the Metra train system.

Air2Access is a company that provides internet access at boating docks with the use of masts that are installed at marinas. Since adaptability is quite trivial in outdoor/mobile environments, it would be quite easy for these two companies to venture into the train commuter market.

The telecommunications industry, which is closely tied with the software industry, has experienced very rapid growth within the past few years. A market analysis report from Insight Research shows that the telecommunications industry revenue will reach \$1.2 trillion by the close of 2006. The study also confirms that there will be a marked increase in the use of wireless communication; wireless revenue will account for 49 percent of the projected telecommunications revenue.

#### **4.3.1 Business Participants**

The foundation for the typical wireless internet business already exists; satellites are readily available. People only need to buy airspace to get their businesses going. This is the reason that it is helpful to focus on a particular kind of environment with venture into this space. It is easy to be washed out if the solution that a company presents is too similar to other solutions that are available. Benefits of discovering a niche market include:

- It is much easier to modify this solution for a more general problem, unlike the other way around
- Having one focus makes it easier to solve problems that may rise within the system.

The hierarchy described earlier also accounts for the kind of 'division of labor' that comes into play when internet providers are concerned.

The opportunity for excellence comes in when the options that the consumer has are put into consideration. Price packages, bonus features and adaptability are only some of the attributes that the different internet services providers use to characterize their service to make it more appealing to the user.

Studies show that businesses have increased in their use of the internet. This confirms that increased productivity in work environments, hence the need for internet access in every way possible. Grand Haven in Michigan was the first city in the United States to launch city wide WI-FI. The city of San Francisco has its own plan in the works, and the city of Chicago has put out a request for proposal for the same service to be available in the city.

Any user that has an internet enabled device has the capability to connect to the internet. Different providers have different requirements for safety purposes. There are also basic criteria that have to be met by the device, depending on the kind of internet connectivity that the user will be getting.

Potentially, the Regional Transit Authority and the Metra train riders would be the sources of revenue for Wildfire wireless. The ideal entry technique would be to apply what Concourse Communications has worked successfully with in different airports in the United States and on the South Shore trains in Chicago. This way, the RTA is not subject to excessive spending and the company would be trusted because this strategy enforces their commitment to what they are doing and their expertise. Eventually, costs for maintenance and distribution would be allocated to the RTA.

#### **4.3.2 Competition and Buying Patterns**

Consumer choices in this industry are based mainly on the following factors:

- Cost
- Performance
- Reputation
- Reliability
- Features

No Internet Service Provider has committed itself to serve the Metra trains but it would be easy for companies that have already attempted outdoor/mobile solutions, to shift their focus for other adaptations like the train. However, if we are able to claim ownership right for the space, we become pioneers in the business, and increasing our area of influence would be easy.

Internet users buy access to the service in relation to how often they use it or where they use it. Hotspot users sometimes have to pay per use of the service, but hotspots are free more often than not. Cell phone providers also give their customers internet access but at ridiculously high prices. When the service is necessary, they have to bear the brunt and pay whatever it costs. Establishments like schools and offices may sometimes set up their own networks and allow free access for the people affiliated with their organization. This latter description creates an impression that internet services would eventually be free for all.

However, there are many more channels that would be sources of income to the company and these include

- Advertisements
- Partnerships
- Expansions

The media makes up a major market for providers of internet services like email clients and major search engines. We anticipate that in the event that internet becomes a free commodity for all, or that many major cities are able to implement city-wide WI-FI services, commercial placements, AD banners and sponsored listing would keep many ISPs in business.

#### **4.3.3 Main Competitors**

##### Concourse Communications - SWOT

###### *Strengths:*

- Generation of investment free revenues for airport authorities
- Cellular coverage in a high traffic, previously dead zone
- Unbiased support for wireless carriers
- Intimate understanding of the airport business and its environment
- Provide enhanced travel experience for the passengers and improved business environment for the concessionaires
- Core competency in all aspects of designing, building, operating and marketing common-use wireless

networks

*Weaknesses:*

- Many competitors, including do-it yourself airports
- Must rely on revenue from only the most profitable moves

*Opportunities:*

- Many major airports that do not have the service yet – large potential market
- Reputation is growing and more airports will welcome Concourse and their services
- Services are expandable based on the initial product

*Threats:*

- Airports may decide that they themselves can provide their customers with wireless access
- Municipal/Citywide Wi-Fi
- Changing technology and wireless standards that would render airports no longer a dead zone from the outside

Terrawave - SWOT

*Strengths:*

- High-caliber tech support, consulting, integration, staging, set-up and configuration
- Provides clients with innovative manufacture authorized training and certification programs
- Product line compliments all major Wi-Fi manufacturers' technologies
- Custom product support and integration
- Same day shipping & in-stock inventory
- Extreme value add focus
- Excellent relationship with manufacturers
- Solid understanding of the products they offer

*Weaknesses:*

- Focus on selling products that they have in stock
- Wi-Fi centric
- Stationary environments
- Hardware focused with a dabbling into security software
- Supplies solution only

*Opportunities:*

- Tailored solutions for customers
- Manage solutions
- Hardware that is not manufactured for outdoor use

*Threats:*

- Companies that seek and support their own solutions
- Companies that train their own employees
- Sales competent hardware vendors
- Technologies beyond Wi-Fi
- Vendors that develop their own outdoor solutions
- Vendors that make their own accessories

**Air2Access - SWOT**

### *Strengths:*

- One of three leading providers of wireless networking technology to the Marine industry, the only provider in the Chicagoland/Great Lakes region
- Specializes in setting up Wi-Fi hotspots in marinas, harbors, and yacht clubs throughout the Great Lakes Region
- Focuses on serving the unique needs of Boaters by offering fast Internet access for wireless devices anywhere on a boat and throughout the marina
- Committed to providing the highest levels of customer service in the marketplace and offers several support alternatives including phone, web, and e-mail options
- Inexpensive equipment
- Already have contracts for over 50 marinas

### *Weaknesses:*

- Small startup company
- Limited target market area (Great Lakes region within 6 hours of the Chicagoland area)
- Seasonal market
- Equipment towers ruined by lightning strikes

### *Opportunities:*

- Expert knowledge of outdoor wireless arena allows them the opportunity to branch out and put wireless access in other outdoor arenas.

### *Threats:*

- Other companies putting wireless access in marinas in other parts of the country
- Municipal Wi-Fi

## **5.0 Strategy and Implementation Summary**

### **5.1 SWOT Analysis**

#### **5.1.1 Strengths**

*Innovative Solution:* We are offering a one of a kind service which is currently not offered on commuter trains in Chicago. We plan to offer seamless and mobile internet connections which the passengers can access while they commute on Metra trains. This kind of access is currently not available in Chicago.

*Technical Expertise:* Our team consists of professionals who have the expertise to integrate the best available equipment and technology in the market to tailor a solution to suit our environment, in this case Metra commuter trains. We not only offer internet connectivity but a host of other peripheral services which will upgrade the Metra system and help them improve their customer service.

*Clear evaluation of the market need:* We conducted surveys which clearly suggest a need for this service. Surveys were conducted on Metra commuters as well as commuters using other modes of transportation who worked in Downtown Chicago. Our research on use of Hotspots suggests that most of the commuters spend more than 25% of their time in Hotspots browsing the internet. Also more and more devices are now becoming internet enabled thus making access to internet more desirable.

*Partnership:* We plan to partner with RTA which owns the biggest network of commuter trains in Chicago.

*Mentors:* Since our team consists of IIT students, we have access to IIT resources in terms of technical and business expertise, incubator space and lab space.

*Contacts:* We have established contacts with the Metra and the RTA, and have also established contacts with Concourse Communications and Air2Access who have engaged in similar endeavors serving as a credible source of information and insight to the business environment of wireless access.

### **5.1.2 Weaknesses**

*Lack of Industry Reputation:* Our team consists of IIT students with no significant prior experience of starting a business. We are a team full of energetic and talented individuals but we do not have any concrete evidence of our capabilities. It will be a challenge to partner with some of the notable companies and get funding.

*Lack of initial resources:* Currently the only sources of funding we have for sure are 'Friends and Family'. We are working on getting some grants to support our initial prototyping efforts, and also exploring the possibility of funding through the Kaplan Fellows Entrepreneurship program.

### **5.1.3 Opportunities**

*Need for Internet:* As the world becomes more technologically advanced, more and more people are becoming more internet savvy and there is a growing population of daily internet users (user growth from 2000-2005 is recorded at 108.9%)-Internet World Stats.

*Desire for Internet on the Trains:* Results of surveys completed by the public show that there is a potential demand/consumer base for this product with the potential for growth. With the growth of wireless access availability in other markets, such as airports and boat marinas, there is additional market validation through the success of the companies who are currently implementing solutions.

*Increased Potential Market:* With the increase of gas prices lies a potential increase for the usage of public transportation, especially the commuter trains.

*Increasing Rider Satisfaction:* There is a huge opportunity to captivate the RTA audience, by providing them with the optional convenience of increasing their level of productivity or simply "entertaining" themselves while riding the RTA.

*Eventual Nationwide Expansion:* If solution is widely accepted locally, there lies an opportunity for potentially expanding the usage of this solution nationally.

*Security Advancements:* The potential allowance of wireless access to the internet onto the train environment serves as a pathway to revolutionary advancements in homeland security (cameras on train, a source of communication, and exclusive consumer information).

### **5.1.4 Threats**

*Cooperation of Metra:* Our reliance on the cooperation of the Metra continues to serve as a threat to the success of our company considering the possibility of them not fully embracing our vision.

*Evolution of Communication Standards:* The evolution of communication standards such as the implementation of municipal Wi-Fi could possibly put wildfire wireless in a position where we are of no use to the consumer market.

*Falling Cost of Internet Access:* The continual decrease in the cost of internet access could serve as a potential hindrance to pricing strategies and overall ability to generate significant revenue.

*Local Competition:* The emergence of local competitors serves as a possible threat, making it a necessity that we be prepared for successfully competing in the wireless access market.

## 5.2 Strategy Pyramid

- *Strategy:* To provide wireless internet connectivity on Metra rail cars.
- *Tactics:* To utilize IIT's available resources to obtain the skills needed in order to create and implement such a solution. Delivering said solution on complete trains or in the form of a "business class" car on each train.
- *Programs:* Summer project involving a team of IIT personnel working to demonstrate the viability of the solution through an, ideally, on-train demo. Cooperation with the Metra to decide on an implementation tactic for our wireless solution.

## 5.3 Value Proposition

In industry, Wildfire Wireless serves as a **distribution channel** for network hardware and software, delivering these goods to a community that would otherwise be a difficult sell for hardware manufacturers. Leveraging the hardware to create a solution tailored to the commuter industry, the company serves two consumer bases in the commuter rail lines and the commuters on those lines, delivering service and infrastructure enhancements to the rail line and wireless internet to commuters.

For a commuter rail line, this means access to a number of immediate enhancements, including the implementation of a central **digital rider tracking system** allowing for the real-time monitoring of rider information. Wireless infrastructure can allow users to swipe cards or perform similar activity on a train instead of relying on punch tickets, eliminating the need for an overbearing number of conductors and effectively eliminating the delay in ridership statistics and information and reducing cost of operation for train lines. Wireless connectivity can also allow for **real-time visual communication** with passengers by means of digital displays on trains or in stations that can be controlled to show stops, notices, and even advertisements. For future train systems, this connectivity could mean **live monitoring of critical hardware systems** on the train, allowing for maximum life of components and proper warning of failure, as well as eliminating routine check-ups effectively increasing the amount of service time a train will see. Possibly most importantly, connectivity to trains can allow train operators access to **visual displays of intersections and upcoming track conditions**, increasing warning time and greatly reducing the risks of train operation. Lastly, the benefits that commuters see to having wireless internet access **can bolster loyalty** to commuting via the train and may also serve **to attract additional commuters** from other modes of transportation who would benefit from the service to and from work.

From the prospective of a commuter, access to wireless internet during their commute, often longer than half of an hour, can mean a great deal of productivity enhancement before and during work by either taking care of the morning email rush before getting to the office or preparing for a morning meeting or presentation. Commuters would have the chance to take care of all of the things that their employers dislike them doing at work including checking personal email, weather, fishing reports or shopping online, and they can do it during a time that they wouldn't otherwise have been able to utilize.

## 5.4 Competitive Edge

Our sustainable competitive edge is that our company serves as a channel of distribution for hardware manufacturers to reach an otherwise isolated commuter environment (commuter trains). Along with that, we manage the



solution for them rather than just selling or working as a Value Added Reseller. We leverage that solution to provide the wireless access to the consumers, while leaving room to enhance further solutions to the Metra for other problems.

## **5.5 Marketing Strategy**

To inform and familiarize potential consumers, in order to gain and ensure their trust in our services through creative and fashionable forms of advertisement. Marketing the security of our service will be key in maintaining a clean, reliable image.

### **5.5.1 Positioning Statement**

Wildfire Wireless will provide daily commuters of the RTA who would enjoy wireless internet access while on the train, with such a convenience by serving the RTA with customized hardware solution fulfilling not only the needs of the commuters, but the RTA as well.

### **5.5.2 Pricing Strategy**

Due to the unique nature of our service, we have many different options available for a pricing method.

As we are offering an upgrade and innovative service to commuter trains, such as the Metra, we will, ideally, cover the cost of the hardware as defined in the Business Model and the Metra will cover the cost of installation. This will become more of a harmonious relationship, in that, we will both have investments made and it will strengthen our ties and serve as a sustainable competitive advantage.

For the benefit of hotspot and cellular providers, to increase customer satisfaction, we will offer access to our service. We will do so either for a royalty fee per consumer or for an annual fee.

For commuters, there are two main pricing models that can be put into effect: a graduated pricing model or a single pricing model. The graduated pricing model requires limiting bandwidth and restricting accessible websites according to a predetermined pricing scale. The single pricing model would offer full access for a flat fee over a set period of time.

### **5.5.3 Promotion Strategy**

To hook commuter rail lines, we intend to demonstrate to the Metra the technology that has been implemented on the South Shore Trains by Concourse, and our comparable, unique solution demonstration and how it might better fit the needs of the RTA.

The service will then be installed on a single Metra line as a trial run and as further market validation. The current market validation that we possess, the surveys, demand for municipal Wi-Fi, as well as the emergence of multiple high speed connectivity solutions, shows a niche which we have adopted as our target market.

As we expand to different lines, they may come in clusters of about 3-5 lines because Metra train managers are typically responsible for several lines. As we grow and become established, when we approach other managers and make presentations about expanding to their lines, there is a great possibility that they would allow, and possibly prefer, installation on all of their lines at once.

To target commuters, our advertising strategy is almost entirely RTA sponsored/affiliated advertisements. Placing ads on fare cards, static train and bus ads and station ads will be the most effective for our captive target market.

The installation of informative, LCD demonstration screens is a viable medium once we have the financial backing for such a large investment. It would reach an already captive audience (discuss the dynamic and targetable nature of the LCD adds).

Our advertising will extend further into small swag and tangible items that will get our name in people's vocabulary. Items like the ones described would include keychains, pamphlets, trial "coupons", fliers, stickers, etc.

Our sales strategy is centered mainly around offering a free trial of our service. With this strategy, people are more inclined to try our service and, when it is adopted as a habitual lifestyle, as is the case with many routines of commuters, they will stick with it after the trial period ends.

#### **5.5.4 Marketing Programs**

On-train and in-station stationary ads will be key to raising awareness of our service. Ideally, given the revenue sharing potential and gains the Metra would experience through increased wireless consumers, advertisements would be co-sponsored or run by the Metra itself.

Similarly, train schedules, ticket stubs and brochures can be utilized as an advertising medium for our wireless service and would require Metra investment to deliver.

Additionally, users that connect to our wireless access points will be greeted with a splash page that can be utilized as an advertising channel, as well as a channel for Metra to reach commuters or a mode to market future additional services to consumers.

### **5.6 Sales Strategy**

Sales optimization is instrumental in running efficiently while in contact with our customers.

To achieve optimization, we will raise customer awareness through multiple means of advertising ranging from basic static ads to potentially putting in innovative LCDs on the trains in the future. As a result of our advertising strategy, ease of purchase and information will be much better for the customer.

Customer interaction will be handled on a very personal basis until we find the means to outsource our Technical Support. This would not be permanent, however, as once we are established, we will incorporate this aspect back into our company.

Selling this service will be difficult because it's not tangible and, being somewhat technical, it's inherently a complicated issue. With our sales strategy, we will be able to reach consumers and aid them in understanding our service and its benefits.

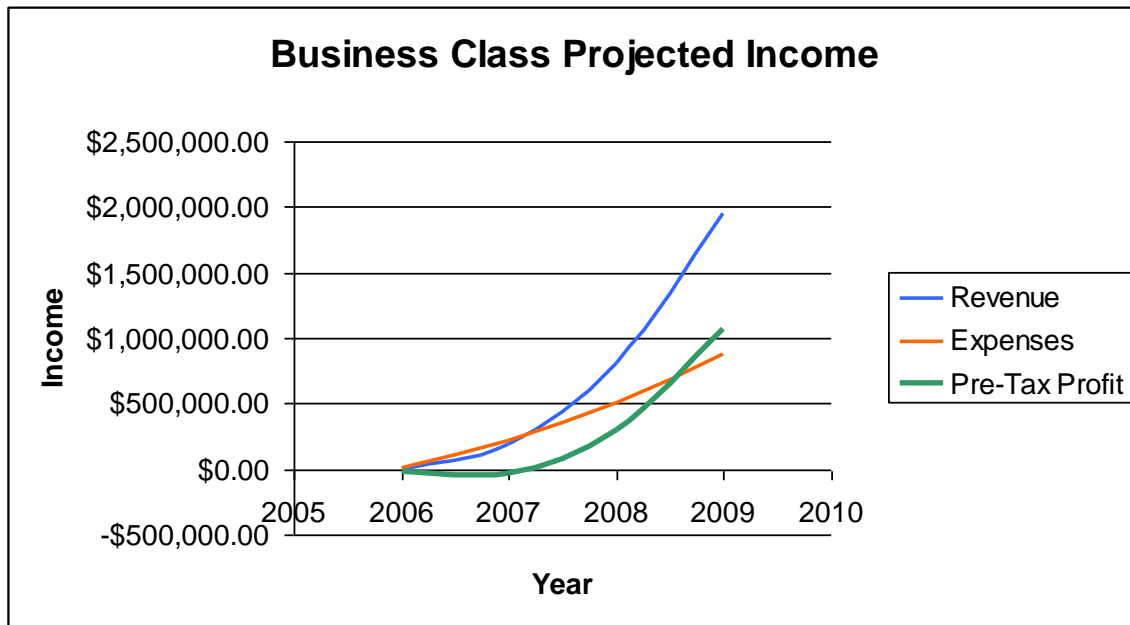
#### **5.6.1 Sales Forecast**

Since our main goal is to offer a service that provides continuous wireless connections on trains, our Sales Forecast includes only this and "Advertising", which is comprised of splash page advertising, website advertising, and any further income we receive as we establish ourselves.

The train line that would be ideal for initial instillation is the Burlington Northern Santa Fe. This is due to the large amount of stops and the short distance it travels. The BNSF has the second greatest number of stations at 28 and is one of the shortest lines. This line runs through Naperville, which is an upper middle class area with a lot of employees working in Chicago.

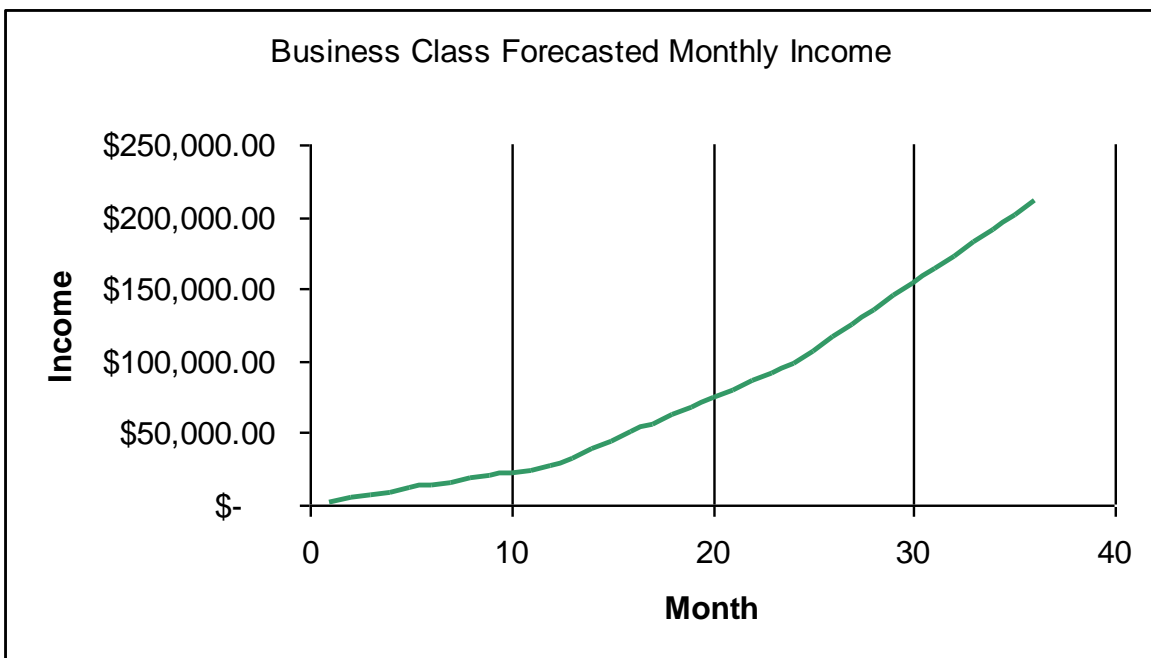
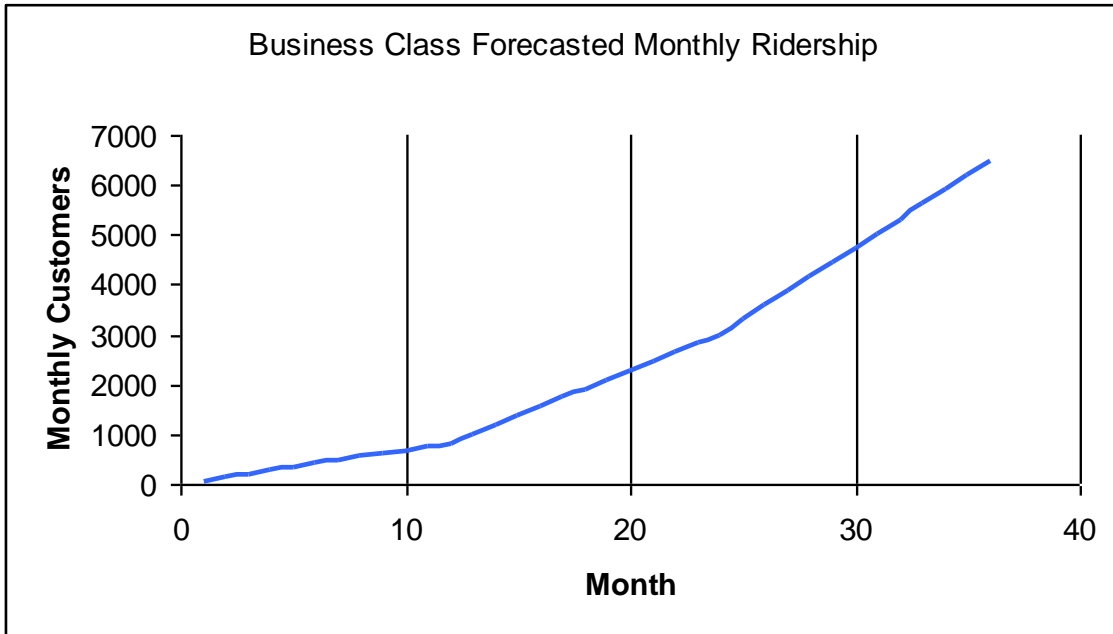
By choosing to go with the Business Class model, our sales forecasts indicate both profitability and sustainability, which can be seen below in both the table and the chart:

<b>INCOME</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
BNSF	\$173,013.75	\$665,437.50	\$1,230,108.75
Line 2		\$115,342.50	\$443,625.00
Line 3			\$115,342.50
Line 4			\$115,342.50
<b>Total</b>	<b>\$173,013.75</b>	<b>\$780,780.00</b>	<b>\$1,904,418.75</b>
<b>EXPENSE</b>			
	<b>2007</b>	<b>2008</b>	<b>2009</b>
BNSF	\$144,898	\$72,895.00	\$41,930.00
Line 2		\$163,380	\$41,930
Line 3			\$163,380
Line 4			\$163,380
<b>Total</b>	<b>\$144,898.00</b>	<b>\$236,275.00</b>	<b>\$410,620.00</b>



This chart was constructed using the Business Class Income Statement

The following two tables show the monthly projections for both the ridership of the implemented train lines and also for the income from each train line.



*More detailed Sales and Revenue forecasts can be found in the Financial Figures in the Appendix*

## 5.6.2 Sales Programs

In order to maintain a competitive advantage, we aim to be the first wireless provider implemented on Metra trains. With the guarantee of exclusive rights to airspace on the trains, we can move on to the next stage of implementing our service, making it available for consumer use.

The addition of our service to other lines may come in groups due to the internal structure and politics of the Metra. As we acquire lines, it is quite probable that we will receive permission from a train manager who handles more than one line to offer our service on all of the lines in their jurisdiction. This will ideally be the case as we begin to expand to more Metra lines within the next few years.

Based on similar situations in industry, we estimate our sales cycle to be 3-6 months to acquire more lines and expand our service. This allows for the attainment of airspace and hardware and the installation time. Since the Metra is operated by the city, turnover for decisions, such as those needed to acquire more lines, is rather lengthy, engulfing a majority of the estimated sales cycle.

Once we are established in Chicago, we will be aware of applications of our service in other locations. Expansion, along with acquiring air space, will still be difficult, but with our reputation and quality backing us, we will be in a good position to grow, implementing our service on other train lines in other cities.

## 5.7 Strategic Alliances

Our alliance and cooperation with the RTA will be critical to the success of our company. Without a healthy and long-standing relationship with the RTA, Wildfire Wireless will not be in a position to most effectively provide a profitable solution to the RTA.

Similar marketing strategies used include Concourse Communication's Market Development Process:

### **High Level Process Description**

Stage 1 *Scoping: A quick and inexpensive assessment of the technical and business merits of the opportunity and its market prospects.*

Stage 2 *Building a business case including: product and project definition; project justification; and project plan.*

Stage 3 *Development: Business case plans are translated into concrete deliverables.*

Stage 4 *Testing and Validation: Provide final and total validation of the entire project: the product itself, the process, customer acceptance, and its economics.*

Stage 5 *Launch: Full commercialization of the product - the beginning of full production and commercial launch.*

## 5.8 Milestones

Goal: To prove to the RTA that our service will add value to their company.

- Establish a working relationship with the RTA
- Provide proof of a valid market
- Develop a working prototype
- Acquire the necessary hardware
- Hiring the required skills needed in order to develop a working prototype.

As far as milestones that we plan to achieve, they include establishing a working relationship with the RTA, by introducing them to our services and proving to them that there is a valid market and demand for our service. We feel that our market research completed thus far will assist us a great deal in doing so. Once we have successfully established

genuine contacts with the RTA, we want to acquire the necessary hardware, and expertise needed in order to develop a working prototype of our solution to further validate our service's efficiency.

## 6.0 Management Summary

Wildfire Wireless is comprised of students from the Kaplan Fellows Entrepreneurship program at the Illinois Institute of Technology. During the Spring 2006 semester the team was lead strongly by Christopher Jones providing the vision and ambition, Marina Hartung keeping our feet on the ground and enforcing tangible results, and Andrei Pop leading the technical progression of the project.

As the company progresses into the Summer of 2006, it will be run by three principals Christopher L. Jones as the CEO, Karina Powell working on Marketing and Sales, and Andrei Pop as the CTO. A few technical team members will be hired to work with Andrei in the assembly of our train solution while Chris works to open the doors on the demo as well as running day-to-day operations and Karina works to further prove our market and develop our sales strategy. Additional help may be hired on a project basis consisting of former EnPRO 350 members and the company is currently looking for additional expertise from IIT professors or industry professionals to assist in the development of the solution.

Additionally, an IPRO will be conducted in the Fall to explore future service enhancements. The team will work with the existing company to leverage current ideas and are also free to explore and develop additional solutions.

### 6.1 Management Team

The Wildfire wireless team consists of seven enthusiastic young people from diverse educational and cultural backgrounds. The team members represent Asia, Europe, Africa and America, and different fields – Mechanical, Materials and Aerospace Engineering, Business, Electrical and Computer Engineering, Chemical Engineering and Information Technology and Management. Despite the differences, we share a common goal as members of this team and we ensure that our personal desires do not interfere with the production of perfect results.

The following people (in alphabetical order) make up the Wildfire Wireless team:

Prajakta Damle – Technical Solution Research  
Ayomide Fawole – Industry Analyst  
Marina Hartung – Financial Analyst  
Christopher Jones – CEO  
Jeremy Nixon – Marketing Analyst  
Andrei Pop – Technical Solution Manager  
Karina Powell – Sales

**Prajakta** is about to finish up her program in Electrical Engineering, and only got involved in this company three months ago. Although she was not an original member, she has shown a lot of insight in ways to run the company and her vision for the project we are currently working on is only based on the company's goal. The skills she has developed through her education have come in handy in developing a technical solution to the problem that this company has identified. Specifically, she has researched hardware options for the solution and has also considered different options including Mesh networks and WiMax technology. Beyond the curricular requirements of Inter-Professional Projects at IIT, Prajakta plans to remain involved with Wildfire Wireless.

**Ayo** has been a part of the Ed Kaplan Entrepreneurship program for two years and this involvement has built her interest in running her own business. She has been able to bring this enthusiasm into the company in helping to define the industry sector that the company belongs to, and how it fits in. Significant team work has helped Ayo produce an analysis of

competition, partnerships and other relationships and this constitutes a major part of the business model. Although, this semester completes her Ed Kaplan requirements, she plans to continue working as a part of the company.

**Marina** has successfully used her instincts as a business major to draw up realistic financial projections for the Wildfire Wireless Company. Her involvement with the Kaplan program as well has helped her to understand what it means for a business to be profitable. She serves in leadership positions on other organizations that she belongs to and she has brought in the leadership qualities she has developed, to help build this team and the company as a whole. She has plans to take on opportunities that would expose her to different skills that would be beneficial for this company.

**Chris** is in his third year in Aerospace/Materials engineering. His original idea was what gave rise to this company. He has led the team for the past year and his drive and commitment is a source of encouragement to the entire team. His involvement with FIRST robotics and other companies gives him exceptional leadership abilities that he has brought to the Wildfire Wireless table. His vision for the company in the next few months is to see a production of the technical solution to the problem that the company has identified and he would be working solely on that during the Summer.

**Jeremy** also joined the team just recently, and his job has been to identify the market that the company is targeting and to provide statistics that would be beneficial in the development of the solution. He is a Business major as well and this makes him very resourceful to the team. He has worked to outline of the business model that the team discussed, and is presented in this plan.

**Andrei** has played a major part in developing a feasible technical solution for the company. He majors in Information Technology and Management and this gives him insight on the in picking one solution over the other. He is a very resourceful member of the team. Over the next few months, he would be in charge of producing tangible evidence that this company would be profitable. He has a lot of trust in the company and the team members.

Although **Karina's** major, Chemical Engineering, has almost nothing to do with the nature of this project, she works as a very good analyst and is able to give relevant information as to the structure of the target market that Wildfire Wireless has identified. Surveys have played a significant role in helping the company make decisions and Karina has spearheaded these decisions. She, like all the other members of the team, sees a very bright future for the company is ready to put in as much work as necessary.

The following people make up the advisors of Wildfire Wireless:

**Professor Jim Braband** has been the project's main advisor since it's inception during Fall 2005. His experience with entrepreneurial startup companies has been invaluable to the team, especially regarding the financial projections. With solid advice and real workplace experience, the team would not have been as successful without his help.

Another vital advisor to the company in the past few semesters has been **Dennis Roberson**, who is the Vice Provost for New Initiatives and Director of Undergraduate Business Programs here at IIT. His interest and involvement with the company stems back to when it was just an idea in Fall 2004, and his assistance has been instrumental along the way. Very versatile in the wireless industry, his advice led CEO Christopher L. Jones to arrive at the Business Class model which made the difference as to whether or not this company even had the potential to exist.

**Dr. Jay Fisher**, director of the Ed Kaplan Entrepreneurial Studies Program, has been very encouraging to the company throughout its entirety. Accompanying those team members who are part of the program to San Jose, CA in Fall 2004, he introduced the team to many entrepreneurs and venture capitalists, igniting the sparks that this idea could become an actual company. His knowledge of money valuation and company ownership and his willingness to help the team come up with a realistic post-money valuation have made him an invaluable advisor to the team.

**Bill Shipley**, CEO of Air2Access, came late into the project, but his experience in a similar market space has proven to be invaluable to Wildfire Wireless. His willingness to assist the team whenever needed makes him the ideal industry professional to advise the team, and we hope he will continue to assist us in the future.

Another industry professional, **Chris Gladwin** of CleverSafe, really influenced the project by imparting an understanding of hiring employees and growing a company, and also by helping us to gain a more solid understanding of manufacturers vs. distributors in our industry. A successful entrepreneur in his fourth thriving business, he provides a great role model for the team.

**Chris Herzog** of Software Technology Group was introduced to the team through a Kaplan Fellows dinner, and through discussion helped the team to discover future services and additional sources of revenue. His experiences in the industry also provided encouragement in their similarity to the situations Wildfire Wireless is currently going through, giving heart to CEO Christopher L. Jones.

## 6.2 Management Team Gaps

Currently, the biggest gaps in our team are those of people with the appropriate technological expertise and that of a person with experience in marketing.

## 6.3 Personnel Plan

<b>Personnel Plan</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
Student Workers (Amount of People)	2	4	5	8
Student Workers (Cost)	\$6,720.00	\$ 12,624.00	\$ 18,936.00	\$ 25,248.00
Salaries (Amount of People)	3	5	5	5
Salaries (Cost)	\$ -	\$160,000.00	\$290,000.00	\$370,000.00
Total Amount of People	5	9	10	13
Total Cost Per Year	\$6,720.00	\$172,624.00	\$308,936.00	\$395,248.00

During the late Spring/Summer of 2006, we plan to add on to the team at least two students with appropriate technological expertise to assist us with the demo implementation phase. Ideally, we will have up to 8 student interns who will be willing to work for a weekly food stipend instead of an hourly rate.

In April, CEO Christopher L. Jones placed an ad in the IIT eRecruiting account, and to date we have received approximately 45 total applications with more appearing everyday. Those interviewed thus far have been very enthusiastic about the project, and most have expressed that they would work solely for the experience in a startup company rather than an hourly rate. The quality of candidates is a great benefit to the company, as we will be able to add on members who will be able to contribute immediately to our expertise gap.

There is also a plan to put up an ad for an experienced marketing person, as that is another position that needs to be filled.



## 7.0 Financial Plan

### 7.1 Startup Funding

#### Wildfire Wireless Startup Funding

<i>Funding Source:</i>	<i>Potential Raised:</i>
NCIIA Grant	\$20,000
IIT	\$0.00
Friends & Family	\$10,000
<b>Total Potentially Raised:</b>	<b>\$30,000</b>

<i>Startup Costs</i>	
Leasing Equipment	\$8,000
Buying Equipment	\$2,000
Operating Expenses	
Consulting	\$2,500
Office Rent	\$3,600
Misc.	\$1,000
Student Workers	\$6,720
<b>Total Startup Costs:</b>	<b>\$23,820</b>

In late May 2006, Wildfire Wireless plans to begin the first phase of implementation, a working demo on a Metra train line. In order for this to occur, we need to raise \$30,000 of seed funding. The sources of this initial capital are currently expected to be a NCIIA Grant and also from friends, family and colleagues. Several family members of the team have expressed interest in helping to fund the startup business. The costs associated with the demo include leasing most of the equipment to prove the concept, though there will still be equipment that is not leased which will need to be purchased. Other expenses for the company during the first phase will be the operating expenses, including office rent, consulting and student worker compensation.

## 7.2 Important Assumptions

<b>Important Assumptions</b>	
<b>Train &amp; Market Assumptions</b>	
3.5	% penetration at the end of the first year
26000	round trip rides on the Metra
90	% are potential market
7	% penetration in the second year
0.666666667	revenue generated by second train line as compared to BNSF
5.5	% penetration in third year
<b>Customers Per Month</b>	
<b>2007</b>	68.25
<b>2008</b>	136.5
<b>2009</b>	107.25
<b>Profit Share Percent With Metra</b>	
25%	
<b>Sources Of Funding</b>	
NCIIA Grant	\$20,000
Friends and Family	\$10,000
IIT	\$0

Our initial assumption of 3.5% penetration rate at the end of the first year originated from a comparison of our market to that of Air2Access', a very similar type of customer base though much smaller. We also looked at Concourse Communication's initial penetration rate, and between the two, felt that 3.5% in the first full year of operation was conservative yet realistic. In actuality, we hope to have a greater initial penetration of the BNSF line. The amount of daily round trip rides on the Metra was taken from the Metra rider statistics, while the potential market percentage was taken from census data. The 7% penetration in the second year was also a comparison of the two other companies, and is an estimation on our part. The BNSF contains the largest number of passengers; with the remaining train lines containing 2/3 the amount of passengers or less of those who ride the BNSF. As such, the amount of revenue generated by these lines would theoretically be 2/3 of that of the BNSF.

Additional assumptions included with our Business Class model include that there will need to be 10 initial cars per train line implemented, with one round trip per car per day. This would include one business class car per trip, with 80 passengers per car. Ticket prices would increase by \$1.50 average per round-trip fare, of which we would share 25% Profit with the Metra.

## **7.3 Projected Profit and Loss**

### **7.3.1 Full Model**

*See Financial Figure 2 in the Appendix*

### **7.3.1 Business Car Model**

*See Financial Figure 3 in the Appendix*

## **7.4 Projected Cash Flow**

*See Financial Figure 4 in the Appendix*

## **7.5 Investment Offering**

The initial investment schedule is listed earlier in the plan, with a certain percentage going to the company's three principals, another percentage to IIT and some going to first round investors.

## **7.6 Use of Funds**

*See Financial Figure 5 in the Appendix*