

## **St. Croix Fiber Networks**

### **Executive Summary**

**Introduction**-St. Croix Fiber Networks (SCFN) is being created to meet the growing demand for broadband services in the rural Stillwater area. This area is currently underserved by the existing providers and as bandwidth requirements continue to increase these existing providers will not be able to meet the demands of their customers with their existing network infrastructure. SCFN will provide telephone and high-speed internet services over a fiber-to-the-premise (FTTP) network to the customer base. SCFN will not provide television service due to the high capital and operating costs associated with that industry. The SCFN network will be fully capable of supporting television services on its network if future analysis indicates sufficient customer demand and financial margins justify adding these services. The network is being built to serve the customers of Stillwater Township, May Township, Marine-on-the-St. Croix and Scandia. The underserved (no cable television provider) portions of Grant, Hugo and Forest Lake Townships are also being considered.

**Broadband Requirements**- the concept of SCFN is based on the increased requirements that broadband is playing in the lives of American's to keep us connected with ourselves and the rest of the world. To many persons, it is unfathomable to imagine not having broadband to check e-mail, surf the web, work from home or to access entertainment services. All of these services keep pushing the upper-limit of our competitions' networks due to the constraints of their legacy network technology. With a FTTP network, SCFN will be able to meet the broadband requirements of our customers today plus be positioned to meet the ever expanding future requirements for broadband services from this customer base. There are many new services and trends that are driving the use of high-bandwidth services. Some of these include:

- The increase of Over-the-Top (OTT) services (entertainment) use by broadband customers. It is estimated that by 2013 over 941 million broadband users will access OTT services (ABI Research). Consumers will not only use their computer but also with their television set to bring the Internet to the living room

as continued development of products to bring internet content from the computer to the television become available.

- The development of services such as Netflix OTT services which will allow consumers the opportunity to access movies from televisions through a Netflix interface built into the television set ([www.gigaom.com](http://www.gigaom.com))
- The ability of consumers to access OTT content from Blu-Ray players and video game consoles (Washington Post). Additionally, the proliferation of new set-top boxes that can access internet content and deliver that content to the television will provide this capability to consumers.
- The change of consumers buying habits. Many consumers will look to purchase products and services on-line before making a trip to a traditional brick and mortar store. (Telecom Magazine)
- Currently 20% of television is viewed on-line (Integrated Media) and in three years, 75% of gaming consoles will watch at least one video per month through the gaming console. (Diffusion Group)
- The increased demand for consumers to work from home and also for their children to access educational content from the web

Competition and Sales and Marketing-due to the rural nature of service area there is limited competition from cable television providers which leaves only satellite and digital subscriber line (DSL) to serve the high bandwidth needs of many of the residents. Satellite service providers such as Hughesnet and WildBlue have limited bandwidth (current Hughesnet service can only provide up to 5 megabits per second (mbs) download and 300 kilobits per second (kbs) upload service and their service costs 350.00 a month). If you look at the fine print on the Hughesnet site while their basic service is advertised at 1 mbs download-the actual performance is more in the 500 kbs range plus they do not guarantee any performance for virtual private networking (which is vital for many work at home users) and do not encourage the service to be used for real time services such as stock trading and voice services. Wildblue Satellite offers the same types of services as Hughesnet and its services have the same limitations.

Qwest provides DSL services in the area and while their television advertising promises “fiber-optic internet”, that service is only available in more urban areas (Furthermore,

Qwest does not even offer its fiber-optic internet service to the City of Stillwater). Qwest basic services promise 1.5 mbs download but that speed is dependent upon where the customer is located in relationship to the Qwest DSL equipment. Frontier Communications provides DSL services to May and Scandia Townships. The speed of its service is dependent upon the customers' location in relation to the Frontier CO or DSL access terminal.

US Cable serves the City of Marine on the St. Croix and portions of May Township and Scandia. Its services are only available in the most populated portions of these service areas. While US Cable provides voice, internet and cable television services, service quality and pricing are an issue with their existing customers. In addition, like DSL services, their internet services are asymmetrical meaning that the ability for a customer to upload information is limited. Our current estimates show that only 40% of the homes in the service area SCFN will serve have access to cable television service.

SCFN will initially provide an internet service that will start at 5 mbs for both upload and download speeds at a \$50.00 per month price point at the low end and services up to 20 mbs at a \$70.00 per month price point at the upper end. In addition through our business relationship with Nextera Telecommunications, a local Minnesota CLEC, we will be able to provide telephone services over the network to not only residential subscribers but also a hosted business service which will be attractive to work-at-home customers. Due to the costs of providing television services and the small amount of margin it brings to the bottom line, we have decided to forego those services at this time. We do believe that residents are generally happy with satellite video services and that they are really looking for more internet and voice options. Should future demand justify, video services can be added to the SCFN service portfolio as the SCFN FTTP network is fully capable of supporting the bandwidth video services require. Currently, DirecTV and Dish have begun to utilize the Ethernet port on their set-top boxes to deliver additional content and SCFN will be the internet transport solution for that service.

The projected SCFN customer base is 3778 households and a population of 9775 residents (Met Council). Due to the lack of competition for internet services and the dissatisfaction with the service providers' service quality and costs, we believe that an

initial customer acquisition rate of 40% is possible with that rate moving up to over 60% within three years. While this rate is higher than most telecom ventures would use there are two factors that allow us to believe we can achieve this rate, first a lack of a cable television provider eliminates much competition for internet services and also the spotty nature of the existing DSL coverage by Qwest and Frontier making us sometimes the only option for customers.

The demographics of the SCFN service area tells a story of tremendous opportunity. According to the 2000 Census, the area’s median income is just over \$80,000 and of the employed civilian residents over 75% work in professions in which they would be able to utilize a high-speed internet connection for work from home opportunities. Currently, only 6% of the service areas residents work from home which provides a tremendous opportunity for SCFN to provide services that would enable this base to grow significantly. Also, over 52% of the homes in service area have at least one child under the age of 18 living at home. Children in this age group utilize internet services for social and academic pursuits and are often the drivers of bandwidth usage in the home with gaming, social-networking and other entertainment options as their primary usage of internet bandwidth. The demographic information is summarized by municipality in the table below.

	Stillwater Twp	May Twp	Scandia	Marine St Croix
Population	2553	2928	3692	602
Households	833	1007	1294	254
% with Children under 18	53	52	43	42
% work from home	6.9	6.4	6.9	6.0
% Mgmt, Sales, Service	82.3	76.2	75.5	83.3
Median Income	\$100,560	\$84,957	\$76,389	\$77,633

We believe that a grass-roots campaign from a sales and marketing perspective will allow us to reach the customer acquisition objectives necessary to make this a successful venture. We will have door-to-door sales activity, community events and targeted mailings to drive our customer acquisition. From past projects, we have seen that this is an excellent way to create a groundswell of interest in our services and having local sales and technical staff, will allow us to retain these customers after we have acquired them. There is anecdotal evidence also, that once these high bandwidth services become available in a community, many customers come to the provider just due to the activity going on in their neighborhood, actually following the cable plow crew and asking where they can sign up for services. We expect that this buzz will position us to pre-sign customers which will help SCFN's immediate cash-flow.

Principals-much of the success of SCFN will be due to the active participation of its two principals, John Schultz and Brian Estrem. Both John and Brian have worked together on FTTP projects for the last 8 years and have been involved in all aspects of these projects beginning with business planning through the network design and to network implementation phases and finally customer acquisition, service turn-up and then the ongoing operation and customer service. Both principals will be contributing significant time and sweat equity to the project. Since they have touched all pieces of the business it will not be necessary to outsource services such as design, construction and project management and other business related activities. This will enable SCFN to keep its startup costs at a minimum.

Exit Strategy- the overall goal of SCFN is to create a long term recurring revenue stream for its investors and principals. However, there would be several options available should the principals decided to sell the business. The serving territory of SCFN is bordered by both Comcast and US Cable; both cable television companies that might look at expanding their footprint into bordering territories targeted by SCFN. Also the incumbent phone companies in the area, Qwest and Frontier, may have an interest especially if their existing customer base is eroded by SCFN. In addition there are many privately held telecommunications companies that could see SCFN as a strategic fit with their operations in both Minnesota and Wisconsin. The principal's goal is to operate the business as a long-term investment but if the right opportunity came along a sale is also a possibility.

