



STRATEGIC BUSINESS PLAN FOR

ROCK ISLAND COMMUNICATIONS

2017 BUSINESS PLAN

(REVISION MARCH 2017)

Rock Island Communications, an OPALCO Company

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TABLE OF CONTENTS

STRATEGIC BUSINESS PLAN FOR	1
ROCK ISLAND COMMUNICATIONS	1
2017 BUSINESS PLAN (REVISION MARCH 2017)	1
TABLE OF CONTENTS	2
1.0 EXECUTIVE SUMMARY	4
1.1 OVERVIEW	4
1.2 COMPANY HIGHLIGHTS	5
1.3 PRODUCTS AND SERVICES	6
2.0 BACKGROUND & HISTORY	7
2.1 HOW DID WE GET HERE?	7
2.2 ISLAND NETWORK TO ROCK ISLAND	9
2.3 DEPLOYMENT STRATEGY AND RISK MITIGATION	9
2.4 ACQUISITION AND STRATEGIC PARTNERSHIPS	10
2.4.1 ROCK ISLAND ACQUISITION	10
2.4.2 T-MOBILE PARTNERSHIP	11
2.5 FIBER ONBOARDING STRATEGY	12
3.0 MARKET RESEARCH – CURRENT MARKET & GOALS	14
4.0 ROCK ISLAND PRODUCTS	17
4.1 ROCK ISLAND PRODUCT FEATURES AND BENEFITS	17
4.1.1 ROCK ISLAND FIBER	17
4.1.1.1 Fiber business lines	18
4.1.1.2 Fiber Construction	20
4.2 ROCK ISLAND LTE FIXED WIRELESS	20
4.2.1 LTE Network Deployment	21
4.2.2 LTE pipeline	23



Subscriber growth goals	24
4.3 DIGITAL VOIP PHONE	24
4.4 DIGITAL SUBSCRIBER LINE (DSL)	24
4.5 IT SOLUTIONS	25
<u>5.0 OPERATIONAL PLAN</u>	<u>25</u>
5.1 LOCATIONS	26
<u>6.0 FINANCIAL PLAN</u>	<u>26</u>

1.0 EXECUTIVE SUMMARY

After the first full year of operating the “new” Rock Island, we have learned a lot about the driving forces that make up this very dynamic project. The team has been moving at a break-neck pace since inception, and through it all, demand continues to remain strong, our team continues to solidify, and connected customers – now in the thousands – remain very satisfied. 2017 looks bright, especially considering that we will complete the deployment of our planned LTE sites this year.

We have a fairly conservative subscriber target for next year. We have based our targets on 2016 actuals, which we feel is prudent. With over 6 new customers coming onto our new network every business day, we feel we are still on target to be cash-flow positive by 2018.

1.1 OVERVIEW

Rock Island Communications is dedicated to providing San Juan County with the fastest, most reliable broadband Internet connections possible and excellence in IT services. The company was formed in October 2014 in response to community demand to meet critical needs for telecommunications services that have long gone unmet by traditional telecom providers in the area.

Our primary business is monthly subscriptions for Internet data and voice service, and we have over 3,000 subscribers with in the primary product categories for Fiber, LTE and DSL. But the existing telecommunications infrastructure in San Juan County – mostly aging copper phone lines – is inadequate for 21st Century communications, and so a large part of our operations involves constructing all-new infrastructure. As we build out this new infrastructure, we migrate our current customers, as well as new customers onto our fiber and fixed wireless LTE networks.

This new infrastructure is an extension of the fiber-optic Smart Grid network built by Orcas Power and Light Cooperative (OPALCO). Starting in 2001, OPALCO built a private network connecting major components of its power system in order to increase the reliability and efficiency of its operation. Ten years later, San Juan County found itself confronting a growing crisis in connectivity, with most locations unable to access Internet speeds above 1.5Mbps, and the incumbent phone company unwilling to invest in large-scale improvements because of our small rural population.



County leadership studied the options, and concluded that the future of telecommunications in the islands would need to be built on OPALCO's fiber optic "backbone." In 2014, OPALCO created a subsidiary called Island Network, LLC, and subsequently acquired well-known local Internet service provider Rock Island Technology Solutions. Island Network now does business as Rock Island Communications.

We are building this new broadband network by extending fiber-optic lines from the OPALCO backbone. The backbone is paid for by the power co-op, but all the extensions we build for broadband usage are funded by our subscribing customers. We work closely with our customers to design the most cost-effective approach based on their unique needs.

Because of the rugged nature of our island terrain, there are locations where it is not financially feasible to install fiber optic infrastructure. In order to serve customers in those locations, we have established a strategic partnership with T-Mobile USA, and are deploying LTE Fixed Wireless Internet service, using equipment mounted on utility poles throughout the county.

Our hybrid network - utilizing both fiber optic and wireless technologies - provides excellent, scalable Internet connectivity throughout San Juan County. This strategy allows us to offer our residential and small business customers a variety of service level options, up to 200Mbps. Rock Island also offers a variety of products beyond 200Mbps for large business and institutional customers.

1.2 COMPANY HIGHLIGHTS

Established: Island Network, LLC formally separated from OPALCO - October 2014

Mandate: OPALCO Board votes to move forward on broadband initiative - November 2014

Strategic Acquisition: Purchased 100% ownership of Rock Island, Inc. - February 2015

Strategic Partnership: Signed 10-Year joint venture with T-Mobile US - May 2015

Refinanced and repaid initial loan from OPALCO in May 2016

Fiber: 113 miles of distribution fiber (32.5 overhead, 80.5 underground), with 868 fiber vaults, 5 major submarine crossings, and 6 redundant wireless radio connections.

LTE Fixed Wireless Deployment: First customers deployed in December 2015. 22 LTE sites online, 38 sites online by YE2017



Community Dollars Invested: Over \$1.9m invested directly by customers to cover construction costs since January 2015.

Customers: 3000+ customers, and growing quickly.

Two retail locations on two islands, with services on 20 islands.

1.3 PRODUCTS AND SERVICES

Rock Island offers a wide variety of products and services categorized under two main areas of operation.

1. ISP Solutions

2. IT Solutions

1. ISP Solutions: This is Rock Island's primary product offering focused on delivering high-speed data and voice services for residential, commercial & wholesale customers via multiple delivery methods including fiber-to-the-premise, LTE Fixed Wireless and DSL. Rock Island exclusively services locations within San Juan County in Washington State.

Fiber: Rock Island's fiber-to-the-home/premise (FTTH/P) is an unmatched product in the marketplace offering symmetric speeds to our customers, ranging from 25Mbps to 200Mbps. Every FTTH/P connection constructed is scalable to 1Gbps without any additional end-user modification or investment from Rock Island.

LTE Fixed Wireless: Given the topography and lack of density throughout the county, LTE Fixed Wireless is the perfect complement to our Fiber offering for broadband. LTE Fixed Wireless enables speeds superior to DSL, while allowing for rapid deployment into the marketplace.

DSL: DSL will continue to serve as Rock Island's minimum product offering in the marketplace. Our expectations over time is to continue the move away from DSL products as we upgrade this customer base to either LTE or fiber.

Data Products	Service Offering	Price Per Month
Fiber to the Home¹	200Mbps	\$180
	100Mbps	\$130
	50Mbps	\$90
	25Mbps	\$80

LTE Fixed Wireless²	15Mbps/5Mbps	\$75
DSL³	10Mbps	\$64.95
	8Mbps	\$59.95
	6Mbps	\$54.95
	3Mbps	\$49.95
	1.5Mbps	\$44.95

¹Residential/Small Business Fiber to the Home or Premise products are offered symmetric, meaning Rock Island delivers the same upload speed as download speed on each connection. Rock Island also offers 2 seasonal rate plans, 3-month and 6-Month, for each product.

²LTE Fixed Wireless speeds can vary throughout the county depending on location, topography, traffic use within each sector, and frequency used.

³DSL speeds are not available in all locations and are dependent on CenturyLink's infrastructure and proximity to DSLAM. In particular, upload speeds for all DSL products are limited to an average less than 1Mbps.

2. IT Solutions: Rock Island's second service category is comprised of a variety of IT-related services including: corporate IT support, proprietary network management, co-location hosting, email hosting, web hosting, domain registry, repair and retail services. This is a much smaller business line for the company, but an essential service for our Internet customers, so we maintain it as a value add.

2.0 BACKGROUND & HISTORY

2.1 HOW DID WE GET HERE?

Rural communities continue to experience a decrease or stagnation in their economic growth. The expansion of rural broadband capabilities around the nation are paving a crucial road for economic development, opportunity and community stability all around the country. While broadband may not be the sole driver in why a person or family would remain in a rural community, or move from an urban/suburban area, it is becoming an ever more critical requirement for people to do so. This is especially true in San Juan County, given our proximity to Seattle, and the additional pros and cons living in an island community.

Beginning in 2001, OPALCO began the deployment of a fiber optic backbone to support their electric grid. Their idea was to efficiently connect various substations, submarine terminals, SCADA system, etc. The development of this system was relatively slow for the first dozen years. During this time, OPALCO also established an internal department called Island Network designed to selectively open up access to fiber broadband customers at various county institutions (schools, county government, libraries etc.), existing ISP's, and a few businesses willing to fund their construction costs to get fiber to their locations.



Since 2012, OPALCO studied various go-to-market strategies to open up its fiber network to the entire community. In 2013, two key events occurred that played a key part in the development of today's strategy and business plan. During the summer of 2013, OPALCO released a plan to the community and to its members to provide service to 90% of the population via a hybrid of wired and wireless service. It was a \$34M investment for the co-op, this may have been considered a "big-gulp" plan. Technically there was nothing wrong with this plan, it was a clear display of the demand and unmet need that ultimately yielded several thousand new customers and put Rock Island in a strong enough position to refinance and be on track for break-even.

The other critical event that took place during this time period was the severing of a CenturyLink submarine fiber cable between San Juan Island and Lopez Island in November of 2013. This disconnected the county's telecommunications for 10 days and was immensely disruptive to the community, both socially and economically. Local businesses just getting back on their feet after a long recession were hit hard by the outage, and numerous people had serious issues reaching emergency services, an especially acute given the age and demographics our San Juan County.

At least one person passed away due to issues reaching 911. This event showed the fragility and dependency of our local telecommunications infrastructure and how critical it was for the community to invest in upgrading it to modern standards.

With the community's support and encouragement, the management and board of OPALCO stood up to the call to action and made the necessary decision to complete their investment in the required fiber backbone. This decision would ensure that there would be enough capacity and expansion capability to deliver a foundation on which we are building Rock Island today.

Included in the backbone expansion decision was the decision to purchase a 700MHz "A" block LTE spectrum. This was soon followed by the development of the initial business and financial plan to separate out Island Network (now Rock Island Communications) as a wholly-owned subsidiary, and fund it with an initial \$7.5M loan investment. The initial goal was now set to deliver a new Fiber and LTE Fixed Wireless service to at least 25% of the community within 3 years.

Within the initial investment loan is a unique risk mitigation strategy for dealing with arguably the biggest risk of all, the cost of construction. We structured an incentive program to help spread the cost and risk of construction by creating two incentive programs, a Construction & Discount Incentives, from which any individual customer can choose one. The Construction Incentive is currently a \$1,500 credit against any individual cost of construction, while the Discount Incentive is a \$20 discount off the price of any service if the customer pays their entire cost of construction upfront.

The incentives and actual cost of construction is incorporated into our Fiberhood engagement strategy. This incentive is aligned alongside key metrics of density, topography, proximity to the



backbone fiber, level of group organization, and level of group/individual commitment that is required to achieve a successful deployment.

2.2 ISLAND NETWORK TO ROCK ISLAND

In October 2014 the OPALCO board agreed to loan an investment of \$7.5M to establish and fund Island Network, LLC as a wholly owned subsidiary. Island Network was tasked to develop, deploy and operate a stand-alone company to deliver broadband services to the community.

The \$7.5m loan investment was structured to focus on two key parts of the startup: \$3M operating capital for establishing initial operational needs, and a \$4.5M construction pool fund to focus on building the necessary infrastructure, both Fiber and LTE.

The \$4.5m incentive pool plan was designed to deliver service to approximately 1,700 LTE customers and 1,300 fiber customers throughout the county. Any funds required to complete a given fiberhood build above the total incentive pool must be funded by the group/individuals wishing to receive service. In addition to the \$1,500 Construction Incentive, to stretch the pool even further around the county, we added a discount incentive as a second option. The Discount Incentive is a \$20 a month discount on any monthly subscription of Fiber or LTE products for the life of the service at the location for the individual who initiated the service. Anyone willing to fund their entire construction cost and not take the Rock Island \$1,500 Construction Incentive will receive this discount.

2.3 DEPLOYMENT STRATEGY AND RISK MITIGATION

The overarching challenge facing any infrastructure build of this kind is who should bear the upfront cost of construction. OPALCO/Rock Island made a very deliberate decision that to achieve the best result in San Juan County, the community as a whole should share the burden. This decision was equally made based upon fairness, co-op principals and a risk mitigation strategy for the new startup.

How is the burden shared in such a small community?

- The **first** investment is the fiber backbone required for the electric grid. This began in the early 2000's and will be completed in 2018. This is an investment by the co-op that will enable scalable control, monitoring and communications around the entire electric grid. This capability is considered a requirement by any electric utility, especially one as complicated as OPALCO's.
- The **second** investment was the initial funding loan from OPALCO to establish Island Network LLC. This note is now carried directly between Island Network LLC and Co-Bank



and is used to fund the deployment of LTE, Construction Incentive and monthly operations.

- The **third** investment is by individuals wishing to receive service and monies paid to cover any construction above and beyond the incentive pool. To support this effort a local bank, Islanders Bank (subsidiary of Banner Corp.) agreed to work with Rock Island to lend funds to both fiberhoods and individuals on an unsecured basis over 5 or 10-year amortization periods at low fixed rates.

In addition to the above investments, OPALCO/Rock Island management took decisive steps during 2015 to mitigate startup risk even further by (sections detailing each can be found in Section 2.4):

- **Purchasing** 100% equity of Rock Island Technology Solutions, a 20-year old local ISP. This cost effective acquisition provided an immediate customer and revenue base from which to scale new products and services.
- Establishing a long-term **strategic partnership** with T-Mobile US to deploy LTE Wireless capability throughout the county.

2.4 ACQUISITION AND STRATEGIC PARTNERSHIPS

Two very important decisions made early in the formation of this new business was our acquisition of Rock Island Technology Solutions and the signing of a long term strategic partnership with T-Mobile. Each decision was decided primarily for risk mitigation. Details on each below.

2.4.1 ROCK ISLAND ACQUISITION

In September 2014, the Island Network staff entered into preliminary conversations with the owner and President of Rock Island Technology Solutions (RITS) about joining forces in an effort to deliver the best broadband solution in San Juan County. Rock Island Technology Solutions started business in 1996 delivering a wide range of technology services over its 20 years in operation. RITS successfully supported much of the community's data needs in a very challenging environment reselling DSL service over the CenturyLink infrastructure and public spectrum wireless canopy. RITS also developed a successful retail and managed services offering to help support individual customer needs. In its last 5 years of sole operation RITS achieved a sound financial base while continuing to grow and solidify their customer base. In a survey gathered by Island Network of local residents in 2014,

On November 20th, 2014 OPALCO signed a letter of intent to purchase 100% of Rock Island, Inc.

Strategic Reasons for the Rock Island Purchase

1. Customer Acquisition

Consumers in San Juan County have a strong desire to do business locally. Local ISP Rock Island built a loyal customer base over a long period while offering an identical service to Centurylink via DSL. Given the revenue stability and low churn rate we determined it would be far easier to build off this platform than recreate it.

2. Time to Market

We determined the costs associated with converting this customer base once acquired was more effective than competing with a long established local ISP and ultimately replacing it. The marketing optics alone were critical in our decision making. The local Co-op replacing a long-term local business would not be received well within the community.

3. Risk Mitigation

- a. We studied in detail the possibility of opening up the network for wholesale access so other ISP's could resell connectivity and not have direct sales. The determining factor why this was not considered the best course was Island Network/OPALCO would still assume the majority of the upfront investment risk and debt carry costs.

4. Cost of Human Capital

- a. The challenge of building an ISP from scratch prior to the acquisition was going to be a big lift given our location and access to required talent.

5. Customer Loyalty

- a. As mentioned briefly above, old Rock Island built and maintained an excellent level of customer satisfaction.

6. Co-Op Public Relations

- b. OPALCO has an indisputable history of supporting their membership and the San Juan community as a whole, and never taking for granted their monopoly position. Taking action by investing in the OPALCO Backbone and Rock Island to ensure safe and reliable electric service, while deploying a critical countywide data and voice service, is being well received by the majority of the community.

2.4.2 T-MOBILE PARTNERSHIP

Our strategic relationship with T-Mobile US Inc. (NASDAQ: TMUS) is structured so each party equally invested assets in the deployment of a countywide LTE network in 3 categories:

1. Joint use of FCC leased spectrum
2. Infrastructure & equipment
3. Ongoing services

Plan Structure

1. FCC Spectrum: OPALCO purchased the rights to use 700MHz A Block Band 12 in 2014 covering San Juan County, Cypress and Sinclair Islands from Vulcan Wireless. Shortly after this purchase, T-Mobile purchased the same spectrum covering the rest of Washington State from Vulcan Wireless. T-Mobile is in the process of deploying LTE service on their national network using 700MHz Band 12 technology under the name Extended Range LTE. In addition, T-Mobile own and deploy service via 2100MHz Band 4 and 1900MHz Band 2 in their national spectrum portfolio covering San Juan County.

Given the nature of propagation and capacity characteristics of 700Mhz vs 2100Mhz, we agreed to share our spectrum with T-Mobile so they could incorporate it into their national network. In return, T-Mobile agreed to grant Rock Island equal access to their 2100MHz spectrum covering San Juan County. So we each share the others spectrum to meet our business purposes.

2. Infrastructure/Equipment: The second component of the agreement was an equal investment of infrastructure and equipment to enable the delivery of service throughout the county.

3. On-Going Services: Each party agreed to deliver each other on-going services to enable full technical abilities to meet our respective business needs. Rock Island would supply the data back-haul transport of all network data to the Westin Carrier Hotel In return, T-Mobile would provide an MVNO (Managed Virtual Network Operator) platform to Rock Island.

Why did this plan make sense versus going it alone?

This strategic partnership with T-Mobile is what will set Rock Island apart from any competitor or comparable peer in the nation who is deploying modern, high-speed data services to rural communities. Fiber to the premise is by far the highest standard for the long-term delivery of data services, especially given that its data growth and scale is virtually limitless. However, it is expensive to install, especially in the challenging topography and demographics of San Juan County. So to have access to private wireless spectrum that can reach the far corners of so many islands and locations is immensely beneficial.

2.5 FIBER ONBOARDING STRATEGY

There are two prevailing models for onboarding people to fiber, and each have their own benefits and drawbacks. These models are:

- The Fiberhood or Group Model
- The Individual Connections Model



The Fiberhood Model: A Fiberhood is any group of people who can benefit from a cost-sharing arrangement to construct fiber to their locations. Fiberhoods range from well-organized Homeowner Associations (HOA's) to groups of neighbors, and road or water associations.

Organizing a Fiberhood requires that a group define a leader(s) who can effectively communicate with the Rock Island team, spread the word among their fiberhood, and help Rock Island educate and commit associated individuals to a build. Since the beginning of 2015 Rock Island has completed or is under construction of fiber to 40 groups ranging from 10 to 100+ properties in a given fiberhood.

In order to engage as many fiberhoods as possible, we built a very sophisticated modelling tool that allows us to determine the average cost of fiber construction to every home in the county. This gives Rock Island the ability to quickly engage new fiberhoods, and get them build numbers close enough to make a commitment.

One of the advantages of this model is that there can be significant cost savings when a group of people come together to share construction.

The Individual Connections Model: This model is simply a method of working with an individual to get them online, independent of their neighbors or a neighborhood group.

People who fall into this category usually live within 100-200 feet of distributable fiber, and can be connected easily. Most of the people who fall into the Individual Connections group typically are being served with overhead fiber drops. These are the easiest type of connections we make, and timing to get connected could be as quick as a few days once scheduled.

Model Mix: Rock Island started with the Fiberhood strategy only in 2015, when there was very little fiber in the county. In the early stages, there was significant pent-up demand, along with well-organized HOA's, on which to develop larger scale builds.

What we saw in 2016 was the introduction and success of the Individual Connection model. There was a working theory internally that if we took an average Fiberhood, with 20 potential customers and roughly 6-months to get online, that we could beat their time-to-market if we focused on 20 individuals. We put that theory to test in 2016 and realized it was a model worth development and grow. This model was also in-line with less organized groups, and individuals in closer proximity to fiber.

Now that we have more of the backbone built, and more distributed fiber around the county, we have more opportunity to roll out the Individuals program. This will only increase in years to come as the backbone completes, and fiber moves its way throughout neighborhoods and central areas around the county. We expect it to increase the Individual Connections program in the first part of 2017. We will see a rolling 300 to 500+ locations fall into this category as we shift toward the

Individual model, and a continuing increase over the following years as we continue to expand this program, and as the Fiberhood model winds down over time.

3.0 MARKET RESEARCH - CURRENT MARKET & GOALS

According to BroadbandNOW (www.broadbandnow.com) there are approximately 10,000 people who do not have access to 25Mbps or higher wired broadband, and 800 who don't have access to any wired connection in San Juan County. We believe the total potential market today is in the 11,000 range - including both consumer and business connections.

We expect to see the total market size to move beyond 12,000 by 2022 for both new residents/business come online, and the percentage of users in the age categories from 30 to 65+ grow from today's percentages.

Age Group	% of Total	Population	Internet Users %	Internet Users #
0-14	13.7%	2,160	33%	713
15-29	11.2%	1,771	93%	1,647
30-49	24.5%	3,861	81%	3,127
50-64	31.5%	4,971	70%	3,479
65+	19.1%	3,007	38%	1,143
		15,847	64%	10,109

(Data source: US Census Data, 2014 ACS, and Pew Research)

Market Data	Totals
SJC Population 2014 Estimate	15,847
OPALCO Memberships	11,203
Graduation Rate - High School	94.5%
Graduation Rate - College or Higher	45.1%
SJC Tax Parcels	17,111
Individual Owned Tax Parcels	12,109
Housing Units - 2014	13,721
Multi Unit	1,038
Single Unit	12,683
Homeownership	71.5%
Median Value (2009-13)	\$472,900
Households	7,753
Connected Households	5,985
Avg. Persons/household	2
Non-Farm Businesses	939

Connected Business	892
Total Internet Connections	6,877
Below Poverty Line	1,593

(Data source: US Census Data, 2014 ACS, and Pew Research)

Current demand in target market.

As we build out we believe San Juan County will eventually match the national average of 84% of connected homes. We also estimate that 95% of the approximately 1,000 non-farm business want or require connection. While we see household growth in-line with the last 5 years (4.3% WA OFM) for the next 6-years, we do believe that connection growth will be higher than state rural averages.

Trends in target market—growth, trends in consumer preferences, and trends in product development.

The single biggest driver for take-rate and potential growth is the demand we see for faster speeds and more stable connectivity. To get in-line with national broadband standards SJC has three to four years of catching up given the vast majority of the community is currently connecting in the range of 1.5Mbps/750Kbps down/up speeds. Thus far, in our initial deployment of fiber, the majority of our new customers have taken service from 50Mbps and above. It is hard to predicate if this trend can be sustained as we grow. Another key area for continued growth will be our IT Solutions area. We expect to see demand move beyond just getting connected to more capabilities requiring IT services and support. In many individual areas it is difficult to generate significant new revenue, however between IT consulting, remote management, corporate network support and retail operations we currently see a collection of IT services growth opportunities in the future.

What barriers to entry does Rock Island face in this market?

Time: Demand is so high for better Internet in the county, and the anxiety is so high in the community that time is a growing burden as individual's expectations remain high. It takes time to educate, negotiate and get fiberhoods in our pipeline. LTE is enabling our ability to deliver service rapidly but it still requires reaching every individual home or person and educating them. Seasonality is also a time constraint as a major portion of the community is disengaged in the winter months.

Staff: San Juan County does not have a deep pool of potential employees to draw from for IT and construction skill sets to support this kind of build-out. We have managed to ensemble a high-quality team thus far but over time, and given the high cost of living, lack of affordable housing, and transient nature of younger workers, we know staff retention will be a challenge. If you know of anyone in the county that could be beneficial to our cause, please have them contact us.

How will Rock Island overcome these barriers?

We are continually changing our communication process to help educate more individuals in the community as we spread the word. We have an in-depth process of Fiberhood engagement that empowers leaders in any given neighborhood to educate and commit their community to wide scale advertising, social-media and cold-calling LTE targets based upon service priorities.

How could evolution affect Rock Island?

Change in technology - fiber: We strongly believe the delivery of data services via Fiber Optic is as future proof as any technology can be as needs and demands change and grow. The nation is still in its infancy in terms of deploying true fiber-to-the-premise. Even within the primary architectures of fiber deployment (PON vs Ethernet P2P) Rock Island has chosen Ethernet P2P for its ability to scale more rapidly beyond 1Gbps to 10Gbps as needed with minimal additional investment.

Change in technology - wireless: We expect to see the most change and potential competitive options in the marketplace to take place within wireless technologies. However, our ability to deliver wireless service via licensed spectrum with T-Mobile will enable us to stay in front of a shifting landscape. No one is more at the leading edge of wireless technologies within the “Big-Four” cellular companies. So to have arguably the leading provider of technical advancements in the LTE space in a long term agreement is a very defensive strategy on our part.

Change in government regulation: At the State and Federal level we do not see any major issues on the horizon to prevent our ability to deploy. There is a continued push nation-wide to bridge the digital divide between urban and rural communities and various agencies (Army Corp, Fish & Wildlife, Dept. of Ecology) we have communicated with have expressed support for our efforts. Many government agencies have a presence in the San Juan Islands (BLM, Homeland Security, WSDOT, State/Federal Parks services) and are already customers who need increased access and capabilities.

Change in the economy: San Juan County’s economy is sensitive to broader shifts in the Pacific Northwest, state and national economic environment, and in particular the real estate market given the reliance on the second home owner market. Also, due to a large reliance on tourism, employment levels are very seasonally driven. 70% of all jobs created are within the private sectors with leisure and hospitality averaging 25% of the workforce. The economic outlook is positive but slow on the uptick after the financial crisis of 2008 to 2010. SJC was slow to be affected but ultimately slower to recover. There is still room for growth to pre-recession levels and 2014 and 2015 continued to see growth in most sectors.

There is a disparity in SJC between wages and income and personal income with a median hourly wage of \$19.95 – lower than the state median of \$22.09. However, personal income in 2013 stood at \$58,718, well above state (\$47,717) and national average levels (\$44,765) given a large portion

of the county population is middle to upper class retirees that collect non-wage income. [Data source here.](#)

4.0 ROCK ISLAND PRODUCTS

Rock Island delivers a wide variety of services and products in three major business lines to our customer base ISP Solutions, IT Solutions and Retail. They are:

Data

- **Fiber to the Home/Premise**
 - Residential/Small-Business
 - Institutional
 - ISP Wholesale
- **LTE Fixed Wireless**
 - Residential/Small-Business
- **DSL**
 - Residential/Small-Business
- **Canopy Wireless** (we are actively shutting down the 900MHz Canopy System)
 - Residential/Small-Business

Voice

- **Digital Voice Service**
 - VoIP Residential/Small-Business

IT Solutions

- Co-Location Services
- Corporate IT Management & Consultancy
- Web Domain Services
- Email Services and hosting
- IP Services
- Public/Private WiFi Networks
- Remote Monitoring and Desktop support
- Web Hosting

Retail

- T-Mobile Cell Services**
- Computer Retail
- Computer Repair

4.1 ROCK ISLAND PRODUCT FEATURES AND BENEFITS

4.1.1 ROCK ISLAND FIBER



Fiber is the platinum standard of high-speed broadband Internet service. Rock Island is currently delivering the ability to serve up to 1Gbps speeds to homes and businesses in San Juan County with the goal of serving over 3,000 locations by 2022.

In addition to delivering the fastest download speeds, Rock Island provides symmetric service over the fiber network. The ability to receive upload speeds over 100Mbps is extremely rare in any part of the nation. We believe as our fiber products grow, this will be a key factor for new residents and digital commuters, setting the San Juan's apart from other rural markets. We are the only company delivering end-user fiber service within our target market.

The Fiber network is designed to scale alongside a growing number of connected devices and Ultra High Definition content consumption, as more and more homes connect to the "Internet of Things" and become cord-cutters and cord-nevers. It is not at all surprising for us to see in households of just two people to have a dozen or more devices connected to the network.

Given the expected growth rates of usage, Rock Island has deployed a P2P Ethernet network built to the highest standards. P2P Ethernet delivers a dedicated fiber to each location giving every connection a guaranteed delivery of service and speed to the Customer Premise Equipment (CPE). The Optical Network Terminal (ONT) we supply to each individual fiber customer is a carrier-class Ethernet Indoor ONT designed to meet the growing requirements of intensive service levels all the way to the network edge.

Our head-end platform switch architecture enables high port density, high throughput and very low latency. They are industry leading 48 port dual-speed 1/10 GbE (SFP+) switches.

4.1.1.1 FIBER BUSINESS LINES

We define our fiber business lines into two categories, Residential/Small Business, Institutional/Large Business/ISP

Residential/Small Business

This is our standard home and small business services that is our largest and fastest growing business line. This area is our primary focus for development and growth as we build out fiberhoods and individual connections throughout the county.

Current Residential/Small Business Fiber products and monthly subscriptions are as follows for full-time users:

Product	Price
Essential 25Mbps	\$80
Preferred 50Mbps	\$90



Premier 100Mbps	\$130
Ultimate 200Mbps	\$180

To-date, the product that is seeing the highest take rate is the Preferred 50Mbps followed by Essential 25Mbps with Ultimate 200Mbps and Premier 100Mbps equal.

Rock Island also offers seasonal services, allowing part-time residences to take advantage of our new network. The seasonal offering has been very beneficial, particularly when organizing and committing part-time individuals within fiberhood builds. We estimate that 40% of San Juan county spends on average three months in-county throughout the year. To date we have a little over 24% of the user base who are on seasonal plans.

Current Residential/Small Business seasonal fiber products and monthly subscriptions are as follows:

Seasonal Product	Price
Essential Seasonal 3M 25Mbps	\$43
Essential Seasonal 6M 25Mbps	\$55
Preferred Seasonal 3M 50Mbps	\$45
Preferred Seasonal 6M 50Mbps	\$60
Premier Seasonal 3M 100Mbps	\$55
Premier Seasonal 6M 100Mbps	\$80
Ultimate Seasonal 3M 200Mbps	\$68
Ultimate Seasonal 6M 200Mbps	\$105

Institutional/Large Business/ISP

Rock Islands Institutional/Large Business/ISP services deliver custom solutions to various institutions, businesses and ISP's that require unique connectivity to serve their needs. Institutions and businesses range from our county government, banks, schools, libraries, resorts, medical facilities and state entities.

We provide bespoke services of various private VLAN's (Virtual Local Area Networks) based upon speed commitments of dedicated circuits within an Island, or between Islands and to the mainland ranging from the 25Mbps to 1Gbps. We also incorporate IT services, or Tier 1 support solutions, alongside individual agreements with each of these customers.

This is an area of growth for Rock Island as we expand our services further around the county reaching the remaining larger business and entities. The large focus will be on area resorts and medium-sized hotels that have growing connectivity needs to meet their customer's demands.

ISP



Rock Island ISP/Wholesale products are a line of business we offer to other ISPs who wish to backhaul their customers traffic with us. This is a business line of modest growth over the coming years as we add or upgrade services.

4.1.1.2 FIBER CONSTRUCTION

Managing the deployment and construction cost associated to delivering fiber has been a major objective from day one in this venture. Ultimately, it boiled down to one very key mission: to helping our local contracting resources improve in their knowledge about fiber construction, and diversify their methodologies to meet the needs of this project. We spent a lot time educating contractors on more specific fiber equipment and practices to enable faster and more cost effective deployment.

Vibratory plowing, directional boring, and rock sawing have improved our ability to navigate our excavation projects more effectively and efficiently. Over a million dollars on machinery has been invested by Rock Island and multiple construction contractors unique to this effort. Not only has this allowed us to help control and anticipate costs, but it has also allowed us to navigate difficult environmental challenges that would be unavoidable with traditional trenching methods.

Continuing to grow the knowledge base and skill of these local resources will ensure that we can successfully continue to deploy infrastructure at a predictable and steady rate.

4.2 ROCK ISLAND LTE FIXED WIRELESS

The Rock Island LTE Fixed Wireless service, working with our strategic partner T-Mobile US, is designed to quickly and effectively reach many locations throughout San Juan County that may never see fiber optics. The ability to deliver service that is multiple times better than DSL in a matter of moments compared to service delivered via the incumbent provider over legacy infrastructure is profound within San Juan County.

A LTE sector is defined within the architecture as a single deployed antenna on the pole that contains the ability to distribute service via multiple frequencies. There is a theoretical service capacity within each sector that determines the amount of fixed locations we will serve to maintain optimal service levels. For L2100 we have access to 40Mhz of leased spectrum (20MHz down and up). Converting to down/uplink speeds this is approximately 150Mbps capacity in each L2100 sector. For L700 we have access to 10Mhz of leased spectrum (5MHz down and up) so our capacity is approximately 35Mbps. Please note that capacity is predominately driven by the current technology and can improve as advancements are made.

To maintain a level of optimal service to each customer within a given sector, Rock Island is limiting the number of customers deployed to 35 for L2100 and 5 for L700. Optimal service is



defined as download speeds between 10-20Mbps and upload speeds between 2-5Mbps. Speeds will vary throughout the day depending on the exact usage of each customer at any moment in time. We are also sharing each sector with mobile cellular traffic. Speeds well above these numbers are also possible with some customers seeing above 50Mbps on occasion.

The overarching goal for the Rock Island LTE Fixed Wireless service is to utilize L2100 technology in the majority of residential/small business deployments, while only using L700 technology in the hard to reach or cell edge locations. We want to maintain enough open capacity in L700 for mobile usage, particular given the benefits for emergency first responders and their need to achieve connectivity in the majority of locations of the county. Currently, mobile handset technologies that can access each frequency will default to the strongest signal and this cannot be controlled. However, given the propagation characteristics of L700 we expect to see a large portion of mobile traffic defaulting to it, particularly data traffic in motion.

4.2.1 LTE NETWORK DEPLOYMENT

The color breakdown in the images below represent the following signal strength expressed in dBm loss for a given LTE sector to a cell phone device. We rate coverage for the optimal service level in four simple categories assuming the following conditions:

- Green: Commercial building Few windows, more stone and/or metal in the structure, plenty of obstructions between the pole site and user device
- Yellow: A Home More windows, lesser structure, fewer obstructions
- Orange: A vehicle or behind glass: Only a window between the user device and non-man made obstructions in the immediate path
- Red: Standing outside: No immediate man-made obstructions in the path

The coverage propagation is just an indication to guide us. Actual coverage and performance will vary. We also deploy external antennas in some cases to eliminate the variability's of building construction. We typically see 15-20% improvement in the signal strength when an external antenna is used.

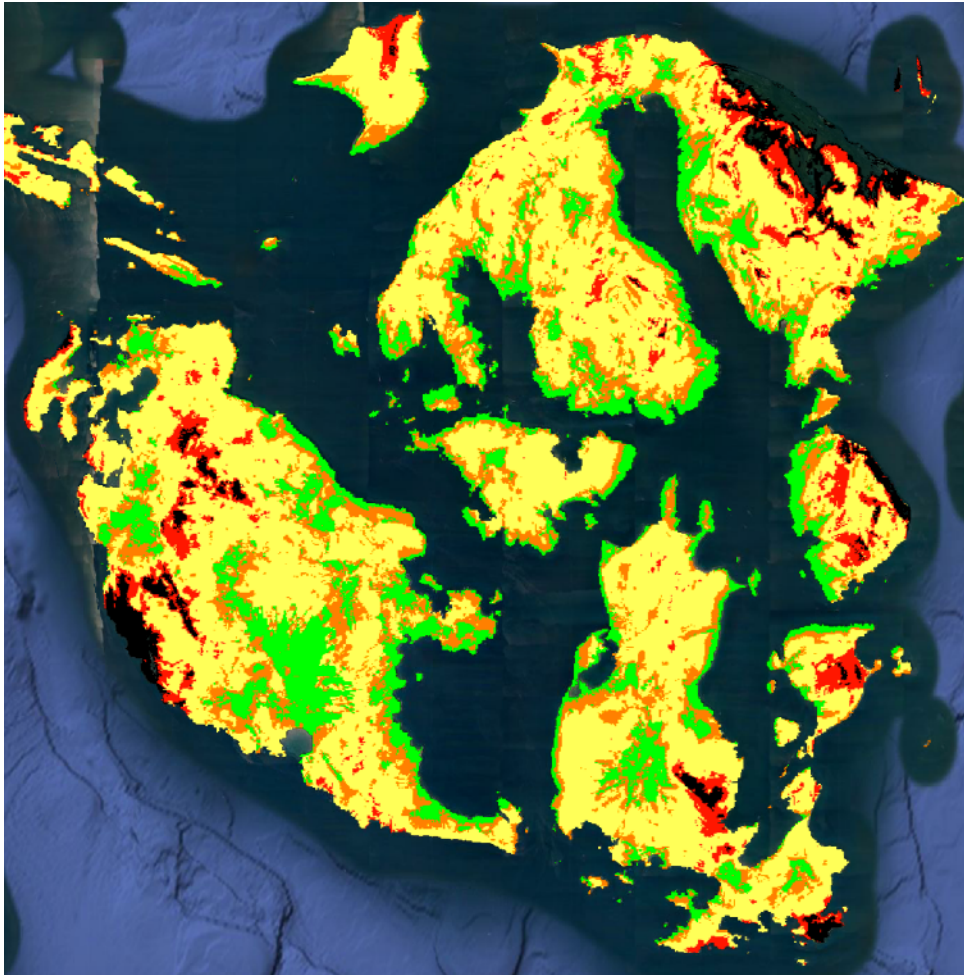


Image 1 - L2100 Coverage - 31 Sites coverage - Ability to serve in Green/Orange/Yellow

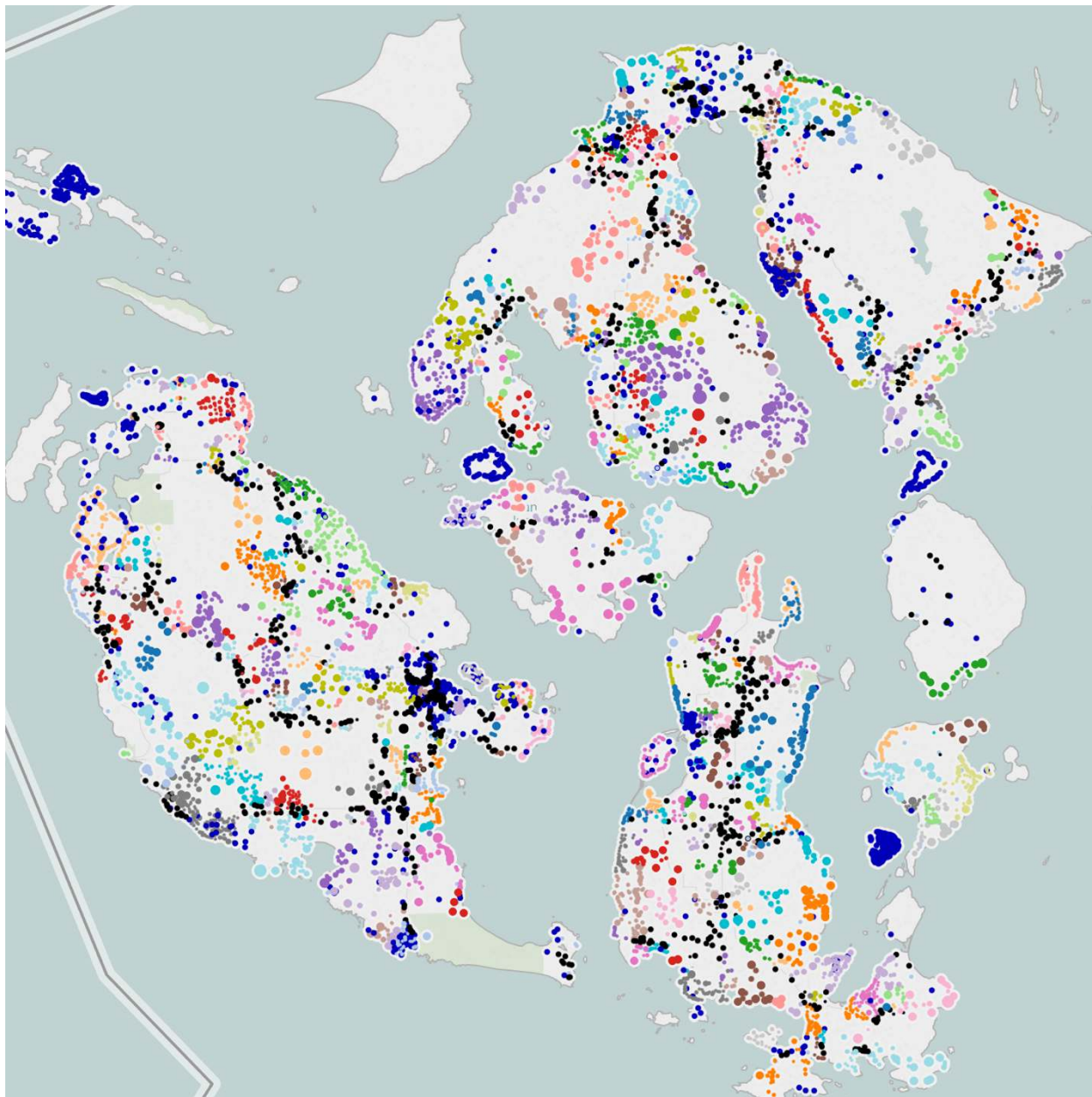


Image 4 - Locations covered L2100

Locations are reachable by L2100. Larger the dot, the better the signal. Color coding is random.

4.2.2 LTE PIPELINE

The coverage ability of our LTE Fixed Wireless is far superior to any other current or possible wireless competitor in the market place given the reach and speed of service activation. The limiting factor is reaching people and communicating the availability of service, especially as we are still building out the network and that potential customers are still learning about this service.



We expect this to last another 12 -18 months as word spreads and people understand their options.

Another key advantage is our ability to deliver VoIP landline service over our LTE Fixed Wireless network. No other wireless ISP is providing landline service at this time for any type of Internet service.

SUBSCRIBER GROWTH GOALS

2017				2018		2019	2020	2021	2022
Q1	Q2	Q3	Q4	H1	H2	FY	FY	FY	FY
2009	2400	2750	3100	3800	4400	5300	5750	6200	6650

Cumulative Totals year over year.

Overall goals with subscriber growth is to capture 65% market share across our product range combining both residential and commercial locations.

4.3 DIGITAL VOIP PHONE

In February of 2016 we partnered with California-based Ooma, (NYSE: OOMA). Working with Ooma allowed us to focus on our core business. They are experts in delivering VoIP services with simple and scalable on-boarding abilities while delivering a feature rich service to meet the needs of any home and small business customer.

4.4 DIGITAL SUBSCRIBER LINE (DSL)

Our Digital Subscriber Line (DSL) service is the primary legacy revenue stream we acquired upon the completion of the Rock Island Technology Solutions transaction. We still onboard new customers to the DSL network if no other option is available to the particular customer.

Current standard DSL product line is as follows:

DSL Service	Price
10Mbps	\$64.95
8Mbps	\$59.95
6Mbps	\$54.95
3Mbps	\$49.95
1.5Mbps	\$44.95

4.5 IT SOLUTIONS

This Rock Island business line includes both products and solutions designed to address specific customer needs billed out on a time and material basis. Projects range from small, discrete tasks, to managing entire IT departments and building custom networks for larger companies.

We will continue to maintain and build our customer base in this area over the coming years. We expect growth to be roughly flat until superior connection options and overall network reliability become the norm rather than the exception in San Juan County.

5.0 OPERATIONAL PLAN

Rock Island's operational plans are primarily focused on the on-boarding of new customers to our fiber or LTE service. We have designed an onboarding process and supporting software to help us scale a large volume of new customers.

We have developed procedures to process our pipeline as quickly as possible. One challenge we faced in the first full year of operation was keeping up with the inquiry and demand for our services; we have developed procedures to streamline these tasks, and continue to refine them still.

We have established multiple methods of outreach from traditional media (local newspapers), social media, targeted outbound calling, referral program and door-knocking to prospects to inform them of their new Internet option. Individuals can either arrange a Rock Island technician site visit to evaluate the level of service and connectivity or they can stop by our store locations in Eastsound or Friday Harbor and pick up an LTE Modem. The LTE service is immensely appealing given the leap one can make in terms of service quality from DSL. Typically, we see individuals increase their speeds from 1.5Mbps to 15Mbps and higher. While this is a significant increase compared to the incredibly low baseline in our county, it will not stand up to the coming need for bandwidth in the near future. From this perspective, transitioning these people over to fiber in the long term is at the base of our operational plan.

Technical Support and Network Operations: Our support staff are required to cover all inquiry from desktop connectivity issues all the way to network-wide outage response and institutional monitoring. This is a key area of focus and development internally as we scale our real-time monitoring systems and processes to support the size and scope of market we are covering.

Our entire support staff has real-time access into network activity and connectivity status to help us deliver the fastest response time in the event of any level of network failure. Our overarching goal in this area is to minimize truck rolling as residential and small business customer come online and call rates increase for minor issues. We have the ability to connect into the home

devices for both fiber and LTE so we can make required adjustments and troubleshoot issues remotely.

5.1 LOCATIONS

Rock Island has two offices and retail stores at the following locations:

- In Eastsound at 208 Enchanted Forest Rd
- In Friday Harbor at 345 Court Street

In 2017 we plan to see the transformation of the Friday Harbor store into a T-Mobile retail outlet. We will sell and support all T-Mobile products that make sense for our market and meet the needs of our partner relationship. The build includes the purchase of all T-Mobile required store infrastructure.

Stores are open to the public 9am - 5pm Monday through Friday, with the exception of certain holidays.

6.0 FINANCIAL PLAN

The Rock Island Pro-Forma 2017-2022 Financial model is built to be as conservative as possible on both revenue and expenses while understanding the demand we see and what is required to meet our goals, and to support all ongoing deployment costs and monthly services.

Since our establishment, our management team had been focused on deploying as fast as possible to meet demand and recoup investments made by onboarding new customers. The speed and scale of onboarding is critical to benefit from the compounding effect of our predominantly subscription-based revenue streams. However, this is a very large construction effort with significant upfront investment that can't be throttled back quickly to align with unexpected changes in revenue.

One example of this dynamic can be seen in our relationships with specialized contractors. We have engaged both off and on-island construction contractors for use in fiber construction. Off-Island contractors require a consistent stream of work to maintain cost-effective unit pricing per foot. We do our best to keep our contractors lined up with work, any delay of any given project can be costly if we can't find other work around the county quickly. Contractors also have long-term housing requirements, and the like, to maintain necessary staffing levels in-county to help avoid expensive mobilizations costs. These challenges attribute to complexity in forecasting capital expenditures, completing projects on time, and ultimately, onboarding new customers.



Another example is inventory purchases. They are often very large with long lead times, so inventory will consume significant amounts of cash resources while receiving timelines are inconsistent.

Any lag in new monthly customer adds has an immediate negative impact compared to budget expectations. Onboarding numbers for the second half of 2016 have been impressive, with 2 fiber and 4 LTE customers on average every work day. This change in relation to large expenses has a net impact not only in count, but in compounding revenue over the duration.

2016 was the first full year of combined operations and full active deployment of both fiber and LTE allowing us to see the full spectrum of demands and timelines associated with all of our efforts. Based on these learning, we have made the following high-level assumptions for our current working model:



Island Network LLC (5-Year Budget Summary Projection)

	2017	2018	2019	2020	2021	2022
OPERATING REVENUES						
Internet subscriber sales	3,564,880	4,723,446	5,639,440	6,178,529	6,585,502	6,996,365
Total operating revenues	3,564,880	4,723,446	5,639,440	6,178,529	6,585,502	6,996,365
OPERATING EXPENSES						
Cost of services	788,439	759,455	737,105	715,396	694,523	674,475
Labor & contractors	2,377,496	2,448,546	1,835,564	1,960,563	2,117,025	2,279,455
General & administrative	786,141	781,015	1,524,118	1,532,373	1,517,364	1,504,840
Selling & Marketing	60,000	63,000	66,150	40,000	40,000	40,000
Depreciation and amortization	675,605	693,885	729,710	722,190	689,082	656,175
Total operating expenses	4,687,681	4,745,901	4,892,647	4,970,522	5,057,994	5,154,945
Operating margins before fixed charges	(1,122,801)	(22,455)	746,793	1,208,007	1,527,508	1,841,420
FIXED CHARGES						
Interest on long-term debt	517,973	587,430	596,031	596,031	596,031	596,031
Operating margins after fixed charges	(1,640,774)	(609,885)	150,762	611,976	931,477	1,245,389
PATRONAGE CAPITAL CREDITS						
Net operating margins	(1,640,774)	(609,885)	150,762	611,976	931,477	1,245,389
NONOPERATING MARGINS						
Taxes	97,252	106,977	117,675	129,442	142,387	156,625
Interest income						
Other income						
Total non-operating margins	97,252	106,977	117,675	129,442	142,387	156,625
NET MARGINS	\$(1,738,026)	\$(716,862)	\$33,087	\$482,534	\$789,090	\$1,088,760