



OVERVIEW

The mission of Chaska.net is:

“Through use of existing fiber optic and wireless technology, develop a high quality, low cost, high speed Internet service for Chaska’s public, business, and residential entities, thereby enhancing Chaska’s vision of being a connected community.”

Chaska.net began operation in 2000 as part of a partnership between the City and the Chaska School District. At that time, the KMC was completing their fiber optic system serving the Chaska business community. Under the terms of the City agreement, which granted KMC the right to utilize the City’s right-of-way, the fiber company agreed to construct a public fiber network serving up to five City facilities. Those five facilities were designated as: the City Hall, Community Center, Fire Station, Municipal Services Building, and the Carver County Courthouse. At the during the same time frame the City partnered with the Chaska School District in developing a fiber system that connects the District’s Administrative Offices (Peavey Building), High School, Middle School, and Elementary campuses. That agreement provides that the fiber line is owned by the City, with the School District paying all the costs for the up-front construction and the ongoing maintenance of the system. This agreement was beneficial to the District, since allowed their fiber to be constructed in public right-of-way and to be located where appropriate, on City-owner power poles.

Located at City Hall, is routing equipment which captures data from the various Chaska.net customers, routing the data across the KMC DS-3 line to an internet POP, located in downtown Minneapolis. The City was successful in obtaining a grant from 3Com to provide the necessary routing equipment, which has a value in excess of \$100,000. That initial grant of hardware was adequate to bring Chaska.net on line, although an additional \$50,000 of capital investment has been made to upgrade the routing equipment since that time.

In the year 2001 the City began providing high speed Internet service to the Chaska businesses through the use of local fiber loops provided by KMC. By year-end, seven private businesses were served through the fiber network. Although the initial system was well received by businesses, the use was limited due to the relatively cost of \$500 to \$800 per month and the need to be located on the KMC fiber network.

To address these limitations, in 2002 the City entered into the second phase of Chaska.net which was based on the development of a “line of sight” wireless network for the community. Under this system, antennas were installed at the City Hall, Community Center, and Hazeltine water tower. Individual customers are provided high-speed connections at monthly costs ranging from \$125 to \$365 per month, with the City

providing the end user antenna hardware at a cost of between \$1000 and \$1300 per customer. Speeds for these customers ranged from .5Mb to 5Mb.

In 2003, this service was expanded when additional antennas were added in the cities of Victoria, Waconia, Norwood Young America, and most recently Shakopee. Partnerships were formed with each of the communities, which allowed the City to install a broadcasting antenna on the community water tower in exchange for each city receiving free Internet service at their City Hall. The agreement further provides that 10% of gross revenues from four or more customers within the City would be remitted to the partnering community.

As of April, 2004, the expanded wireless serviced a total of 71 customers, with monthly revenues of \$16,400. The following table is a summary of the four-year budget for business wireless component of Chaska.net.

| | <u>2003</u> | <u>2004</u> | <u>2005</u> | <u>2006</u> |
|---------------------------|--------------|--------------|-------------|-------------|
| Operating revenues | \$ 182,369 | \$ 253,728 | \$ 276,648 | \$ 290,308 |
| Operating expenses | \$ 225,583 | \$ 190,075 | \$ 181,822 | \$ 181,475 |
| Interest cost | \$ - | \$ 10,675 | \$ 8,026 | \$ 3,586 |
| Annual net income | \$ (43,214) | \$ 52,978 | \$ 86,800 | \$ 105,247 |
| Cash balance | \$ (213,503) | \$ (160,525) | \$ (73,725) | \$ 31,522 |

Over the past two years, Staff has explored a number of options of providing affordable high-speed residential Internet access. These options, though, have not been pursued since either the technology was limited or the end user cost was not significantly less than the current DSL or cable options available to Chaska residents in the \$40 to \$45 per month range.

In the spring of 2004 Staff developed an option which we believe can fulfill our original vision of having low cost, high speed residential Internet within the community. This system, which consists of installation of 200 radios on street lights or power poles, is based on WI-FI technology. WI-FI wireless is a very common technology that is used for both business and home wireless networks.

The hardware solution we are deploying has been developed by Tropos Networking. What makes Tropos unique, is that they have developed the technology to



CITY OF CHASKA

allow these WI-FI radios to talk to each other in order to form a community network.

Attached, is a document identifying in greater detail the Tropos network.

| | |
|----------------------------|------------|
| Tropos radios | \$ 440,000 |
| management software | \$ 10,000 |
| Back hall radios | \$ 50,000 |
| Gateway servers | \$ 5,000 |
| Web update | \$ 10,000 |
| Email server | \$ 20,000 |
| Total | \$ 535,000 |

To install this system in Chaska, the estimated software and capital expenditure is

projected to be \$535,000. Since the system is WI-FI based, it utilizes off the shelf modems, which customers can purchase at local computer stores at a cost of \$50 to \$85 per modem. The system, as proposed, would be capable of bidirectional data transfer speeds of up to 1 to 2 megabytes per second. The fact that Chaska operates its own electric utility, gives it a competitive advantage, since we own and operate the City's street light system also. Attached, is a map of the coverage area provided by the 200 radios.

In developing a financial analysis for the system, we began by developing the following base assumptions for the residential service:

Monthly residential rate set at \$15.99 per month

The City would bill through the normal utility billing system

The City would provide modem to customer at no cost

The City would provide for customer service support through hiring an additional staff person

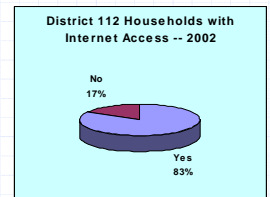
The City's capital investment would be paid back over a 3-year period at an interest rate of 4%

As we consider residential Internet access, it is important to understand the scope of existing customers within the community. In 2002 the School District completed a district-wide survey through Decision Resources. One of the questions asked in the survey was whether households had at-home Internet service. That survey indicated that 82% of school district households had Internet service. Currently, Chaska has 7,500 households. Assuming a minimum of 70% of Chaska households have at-home Internet service, there are 5,300 households who could potentially be interested in this service.

Chaska Residential Market

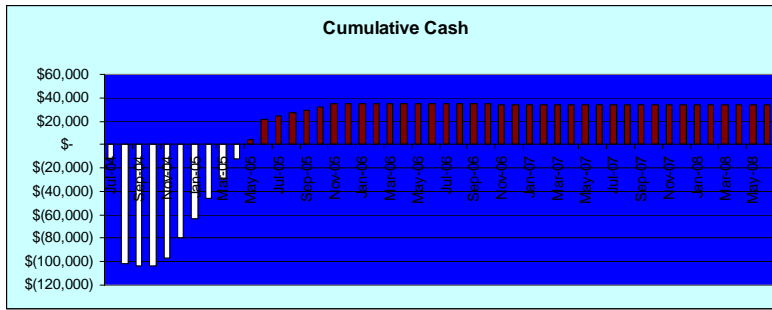
- ◆ Total Chaska Households - 7,500
- ◆ Currently have service 70%
- ◆ Households 5,250

chaska.net

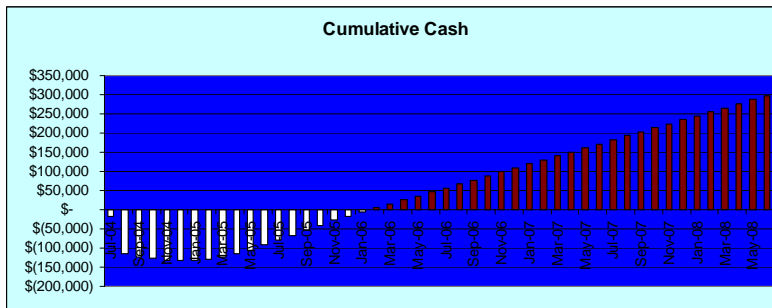


Our analysis of the financial feasibility of the system is based on three scenarios.

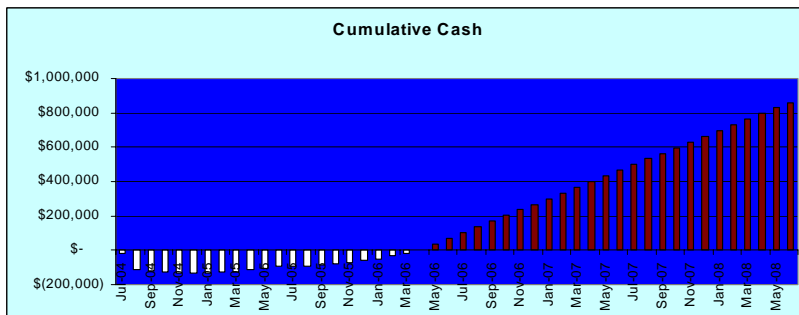
The first scenario is a break-even analysis and is based on the number of customers that the City would need to add over a three-year time period in order to fully recoup its capital and operating expenses during that time. Under this model we assumed that a total of 100 customers would be added per month and at the end of three years Chaska.net would have 1400 residential customers, or approximately 25% of the total current residential Internet customers in Chaska. The following is a graph of cash balances by month based on this scenario.



The second scenario assumes that 150 customers are added per month, with the system reaching a maximum of 2,500 customers, or 41% of the total Chaska Internet market. The monthly cash balances for this scenario are summarized below, which reveals that at the end of four years the residential system would have generated a cash balance in excess of \$290,000.



The third scenario assumes that 50%, or 4,000 of Chaska households sign up for the service, with 150 customers added per month. Under this scenario, at the end of the four-year period the cash balance would be \$465,000.



The conclusion of this analysis was that developing a residential highspeed network at a very competitive monthly rate can now be implemented based on this technology.

Key marketing points of the residential system will be:

1. High speed -- internet connections as fast as cable or DSL
2. Low Cost -- \$15.99 is less than most dialup services
3. No need for phone or cable line

Secondary points will be:

1. No hidden costs –modem provided at no cost
2. No long term contracts --Customer can terminate at any time
3. Mobility – customer can connect anywhere in Chaska
4. System can be expended – speeds can be increased and coverage area expanded
5. Price is not an introductory offer and will remain at \$15,99

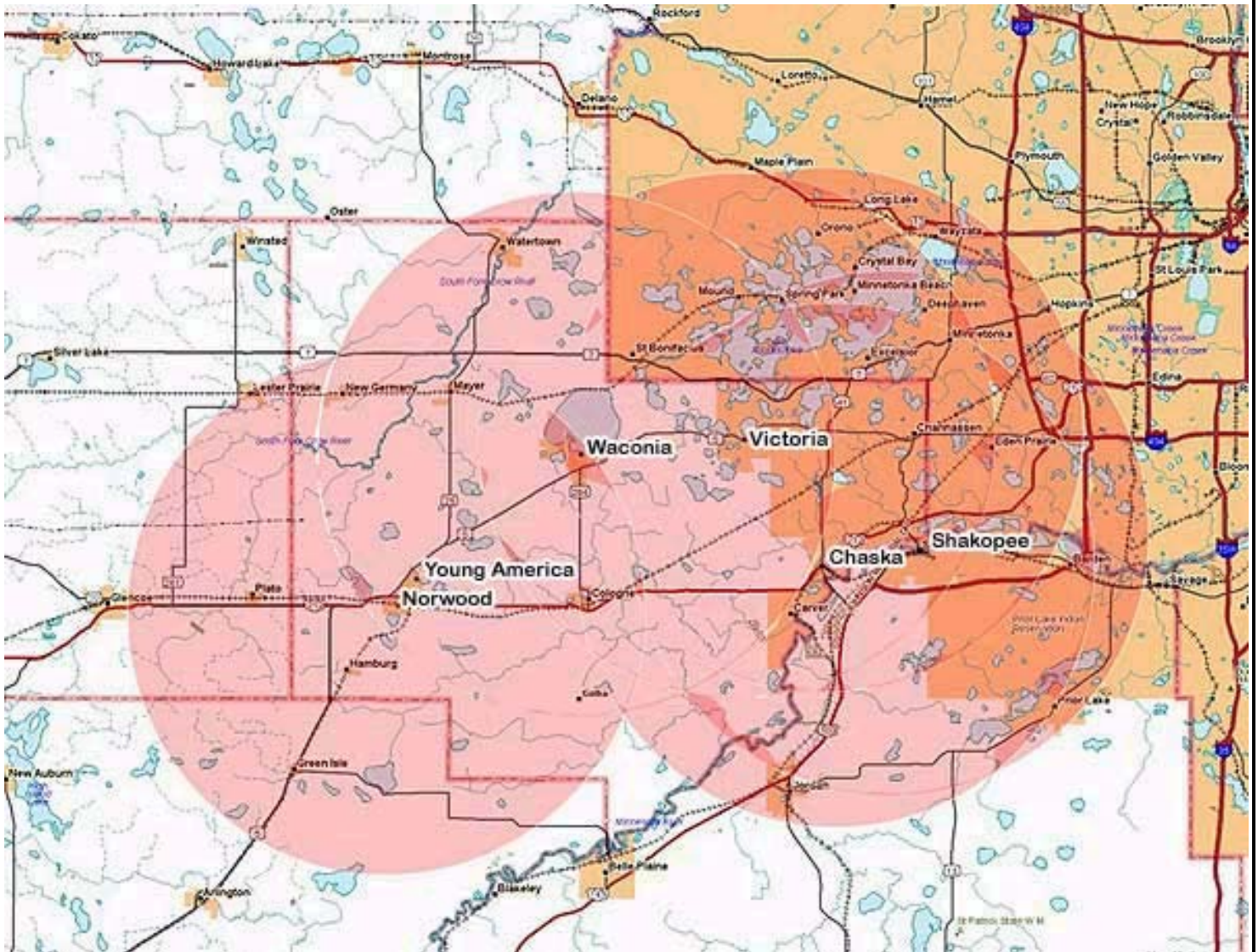
The following table is a summary of the 12-month operating budget for both the business and residential components of Chaska.net.

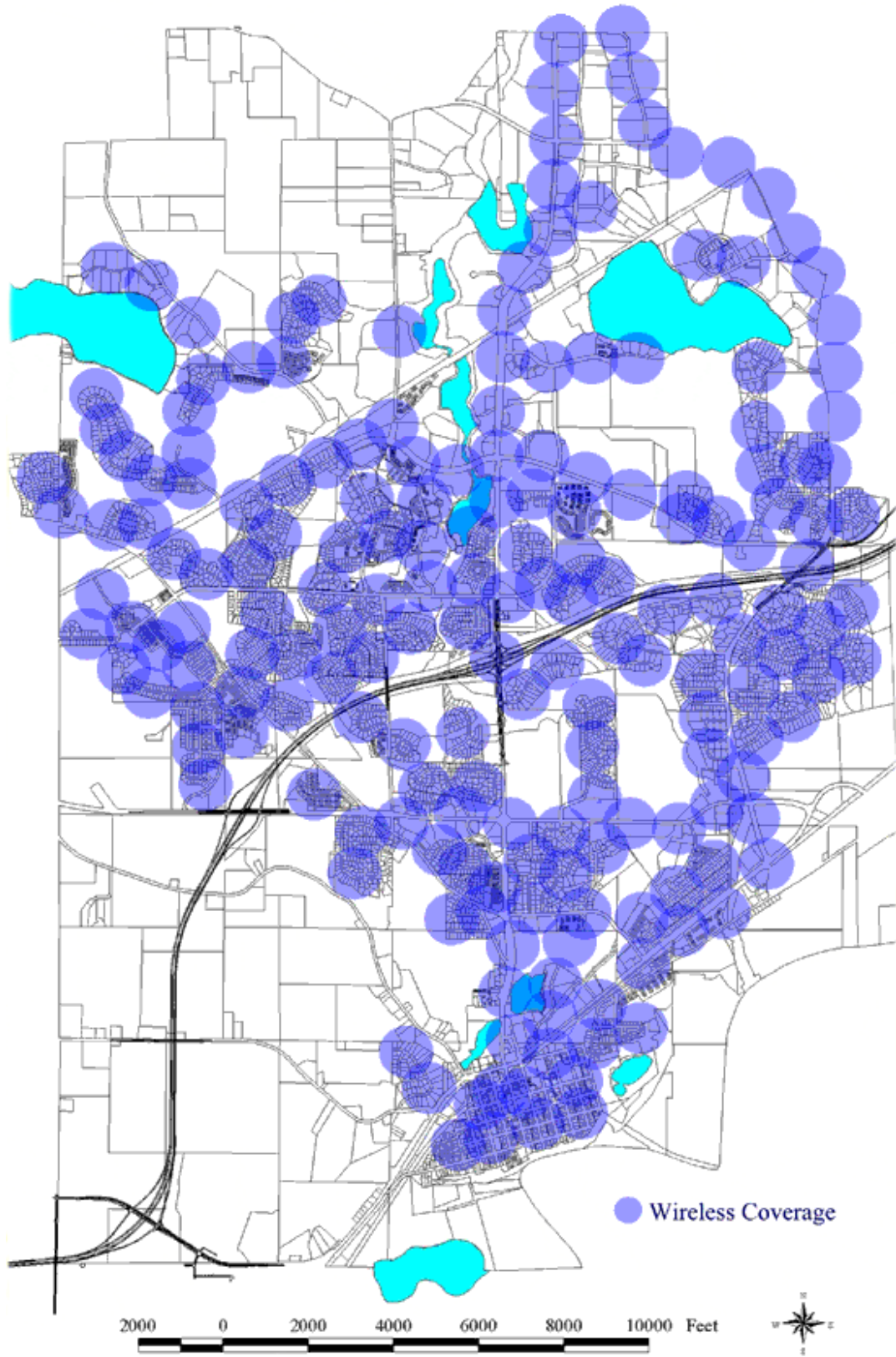
| <u>Revenues</u> | Residential Wireless | | Total |
|------------------------|------------------------|--------------------------|--------------|
| | Current 2004 Budget | First 12 Month Budget | |
| Business Class | \$ 253,728 | | \$ 253,728 |
| Residential | | \$ 276,532 | \$ 276,532 |
| Total revenues | \$ 253,728 | \$ 276,532 | \$ 530,260 |
| <u>Expenses</u> | | | |
| Staffing | \$ 40,000 | \$ 36,000 | \$ 76,000 |
| Professional services | \$ 8,000 | \$ 8,000 | \$ 16,000 |
| DS3 fiber rent | \$ 52,320 | | \$ 52,320 |
| Local fiber loops | \$ 12,600 | | \$ 12,600 |
| Internet port | \$ 39,567 | \$ 72,000 | \$ 111,567 |
| Operatin expenses | \$ 3,588 | \$ 19,250 | \$ 22,838 |
| Equipment replacement | \$ 10,000 | | \$ 10,000 |
| New customer equipment | \$ 24,000 | \$ 212,500 | \$ 236,500 |
| Debt service | | \$ 21,400 | \$ 21,400 |
| | \$ 190,075 | \$ 369,150 | \$ 559,225 |
| Operating Income | \$ 63,653 | \$ (92,618) | \$ (28,965) |
| Cash Balance | \$ (160,526) | \$ (92,618) | \$ (253,144) |

Based on our current 5-year model for the combined business and residential elements of Chaska.net, the fund will have a positive cash balance in late 2007.

Persons desiring additional information of the Chaska.net service can obtain it at our website www.chaskamn.com

Business Coverage Area





Chaska.net Standard Pricing**Residential Wireless (Tropos)**

| | |
|---------------------|---------|
| Wireless Connection | \$15.99 |
|---------------------|---------|

Included Connection, 5 email boxes, 10MB Web Space, 1 MAC Address
\$35 Setup Fee for onsite

Wireless - Business Service

| | |
|---------------------|---------|
| Wireless Connection | \$24.99 |
|---------------------|---------|

Included Connection, 10 email boxes, 20MB Web Space, 2 MAC addresses

Wireless - Expanded Business Service

| | |
|-----------|----------|
| 256k | \$100.00 |
| 768k | \$125.00 |
| Unlimited | \$140.00 |

Includes Support 8-5, M-F, 20 email accounts, 50 MB Web Space
\$200 Setup Fee

Wireless - Premium Business Service

| | |
|-----------|----------|
| 256k | \$185.00 |
| 768k | \$265.00 |
| Unlimited | \$355.00 |

Includes 24x7x365 Support, DNS/Web/Email hosting, static IP addresses, burstability
No Setup Fee

T1 Service

| | |
|--------|----------|
| 256k | \$435.00 |
| 768k | \$515.00 |
| 1.54BM | \$605.00 |

Includes 24x7x365 Support, DNS/Web/Email hosting, static IP addresses, burstability
No Setup Fee

Fiber Service

| | |
|------|----------|
| 5Mb | Per Case |
| 10Mb | Per Case |