



*Sioux Valley Wireless  
Technology on the Horizon  
Spearfish, SD*

September 27, 2004  
Joel Brick  
[www.svwireless.com](http://www.svwireless.com)

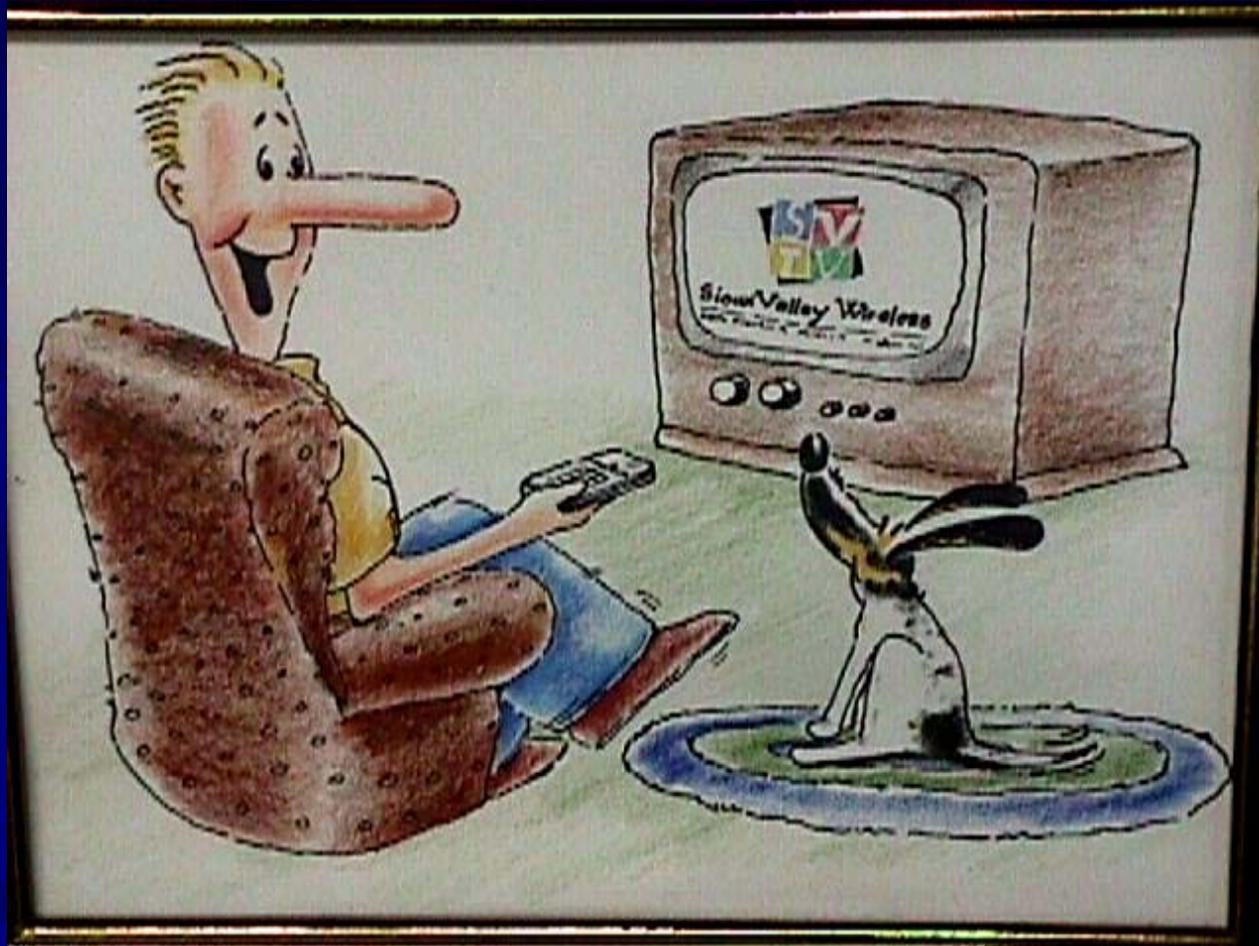
A subsidiary of Sioux Valley Energy, Colman SD

# Technology – Past, Present, Future “Back to the Future”



Dr. Emmet Brown, “The way I see it, if you’re gonna build a time machine into a car, why not do it with some style.”

# Technologies We Offer



Microwave Television

# Sioux Valley Wireless Television

- \$34.95/month..... no hidden cost
- No set-top boxes
- “Whole-House” Service
- Local Broadcast Networks
  - HDTV Option
- Local weather – E.A.S
- DBS antenna tier available
- Bundling discounts available with Internet
- Seasonal plans



# SV Wireless Internet

- \$44.95/month up to \$499.95/month
- Always on
- Two-way wireless – no telephone lines
- Licensed MDS frequencies
- Reliable
- Multi – PC capable
- Residential/Business
- Web Hosting/Spam filtering
- Hot-Spot Access

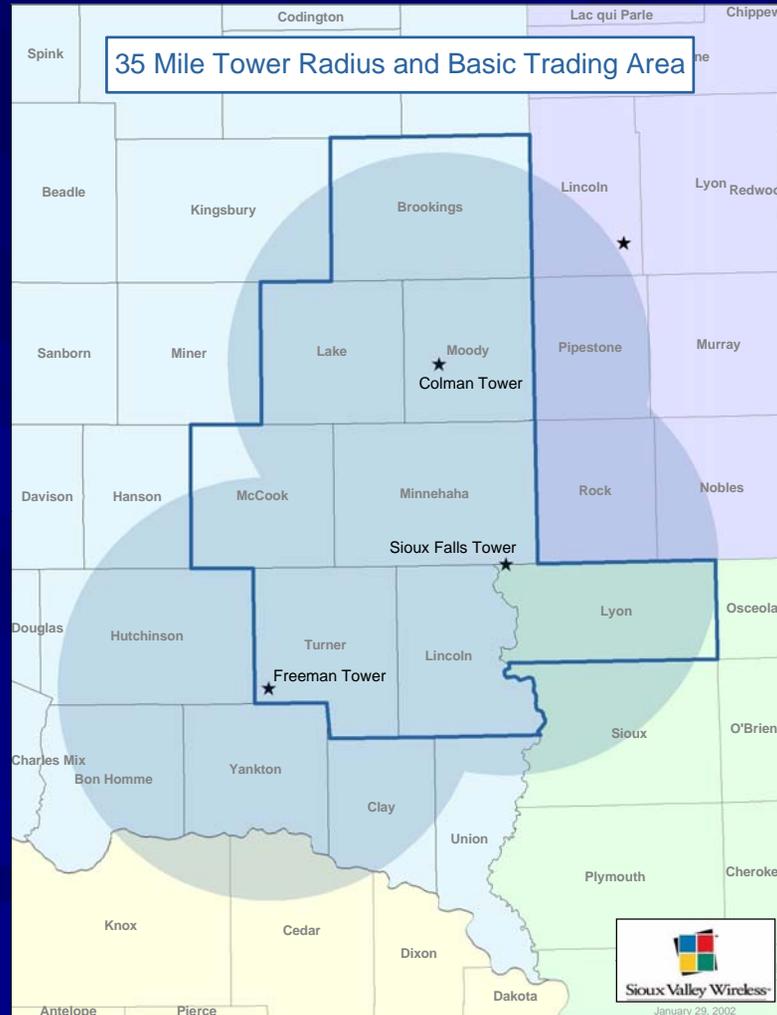
# Sioux Valley Wireless History

- Began MMDS TV in 1989.
- MMDS Sioux Falls BTA in 1996.
- Two-way wireless FCC Developmental license for internet in 1998.
- Initial Data equipment was limited, experimental and expensive.
- FCC two-way engineering and licensing was very challenging.
- We needed to become an ISP (Internet Service Provider).

# Sioux Valley Wireless towers located at Colman, Rowena & Freeman, SD



# Sioux Falls BTA



# Legal Licensing

- License was difficult, expensive and time consuming but Well worth it!
- Unlicensed compliments licensed.
- New FCC MDS Band-Plan will revitalize the MDS Industry! Will require market flexibility and cooperation. Ideal frequencies for broadband.

# Technical

- MDS Super-cell FDD 1<sup>st</sup> Gen.
- Data Co-exists with analog MMDS TV service.
- 3 Super-cells within BTA.
- Numerous unlicensed access points to fill in service area.

# Data Booster



# Bandwidth and Network Management

## Combined Bandwidth to Colman Tower

System: c7206-040-sf.tigate.com in

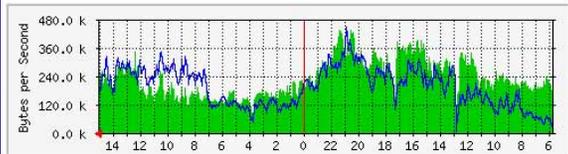
Maintainer:

Interface: Serial 11,12,19,22

Max Speed: 768.0 kBytes/s (Three PointToPoint Serial Links (4\*T1))

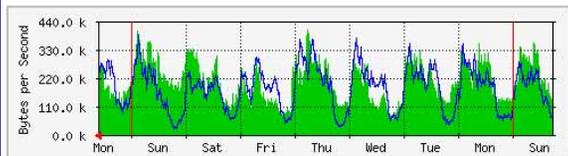
The statistics were last updated **Monday, 15 September 2003 at 15:05**

### Daily' Graph (5 Minute Average)



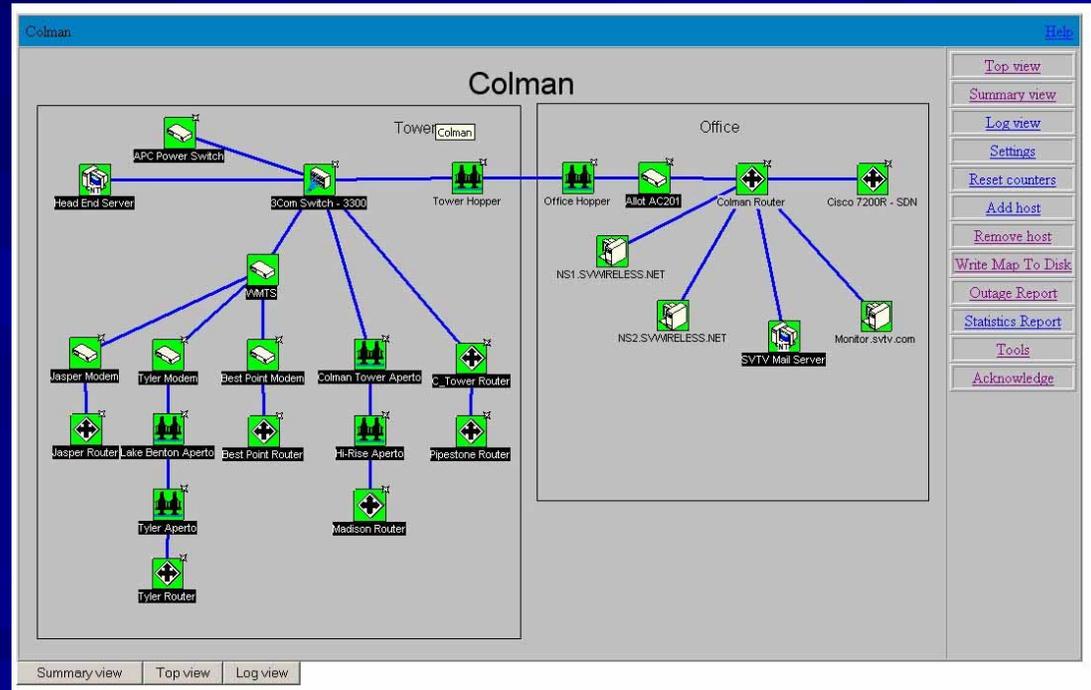
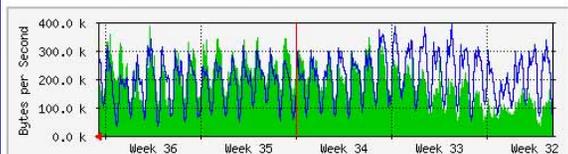
Max In: 441.2 kB/s (57.4%) Average In: 236.8 kB/s (30.8%) Current In: 268.7 kB/s (35.0%)  
Max Out: 449.4 kB/s (58.5%) Average Out: 198.4 kB/s (25.8%) Current Out: 213.1 kB/s (27.7%)

### Weekly' Graph (30 Minute Average)



Max In: 409.3 kB/s (53.3%) Average In: 214.2 kB/s (27.9%) Current In: 220.4 kB/s (28.7%)  
Max Out: 390.7 kB/s (50.9%) Average Out: 183.4 kB/s (23.9%) Current Out: 232.6 kB/s (30.3%)

### Monthly' Graph (2 Hour Average)



# Wireless Internet Applications in South Dakota

- General Internet Applications
- Remote monitoring/control (urban/rural)
- Weather/Markets
- Rural business enabler.
- VPN
- EBAY!!!!
- Anything we can imagine.....



SpongeBob Square Pants says....  
“What’s new at the FCC,  
Commissioner Adelstein?”

# FCC 2.5-2.7GHz Plan Broadband Radio Service (“BRS”)

Elimination of site-by-site licensing requirements.

Modify interference rules to facilitate two-way cellular wireless services.

Segregate high-power and low-power operations into separate bands.

Consolidate licensed channels into contiguous blocks, replacing interleaved channels.

Provide geographically flexible use services.



SpongeBob Square Pants says....  
“Hey Joel- What might be coming at  
Sioux Valley Wireless?”

# Sioux Valley Wireless Plan

- Continue with Sioux Valley Microwave Television
- Add more subscribers to existing wireless FDD 1<sup>st</sup> Gen Internet system.
- Provide reliable performance, competitive price, no gimmicks, multiple QOS plans
- Future: Digital, HDTV video, VOIP, Non line of sight equipment, Wi-Fi / Wi-Max

# Future SVW Wireless Internet



# A Wealth of Applications



**Thank-You!!!**