Alaska: Ideally Situated Near Cabo
1,700 Miles
Anchorage to Seattle
State is vast in comparison to size of population
Total of 571,951 square miles
149 incorporated cities
1.1 people per square mile
Majority of villages in extremely rural areas

Population of Alaska is 634,000
Population of Anchorage is 268,983
Most communities not connected by roads
Year-Round Road System Map
High cost to build and maintain telecommunications infrastructure
Alaska has become a GREAT market for telecom services:

- Alaskans spend 33% more on telecom purchases
- Alaska is 1\textsuperscript{st} in the nation for households with computers, 2\textsuperscript{nd} in the nation for households with home Internet access.
- Alaskans sign-up for high-speed Internet at more than 2X the national average. High-speed is available to 90% of the population.
- 225 (90\%) rural schools have enhanced Internet and distance education services through GCI
- 110 rural clinics have GCI telehealth services
- GCI offers wireless ISP in nearly 150 hard to reach villages
Who is GCI?

- Alaska’s largest long-distance company
- Alaska’s largest Internet Service Provider
- Alaska’s largest cable TV company
- Alaska’s competitive local phone company
- 1,280 employees in 17 Alaska cities and Seattle
GCI’s Winning Strategy For Alaska

- Help communities leverage federal incentives for rural education and healthcare
- Build a network that is scalable beyond the needs of the ‘anchor tenant’
- “Packetize” the network
- Drive connectivity costs in villages to parity with urban areas
- Reduce costs by engaging local partners & stimulate village economy to increase demand
- Reduce costs by engineering new solutions
Federal Incentives: E-Rate’s Impact on Alaskan Telecom

E-Rate’s Purpose:
To ensure all eligible schools and libraries in the US have affordable access to modern telecommunications and information services
How E-Rate Works

• Funding Mechanism
  – Universal service fee
  – Capped at $2.25 billion annually
• Discount Structure
  – Based on need and location
  – 20 – 90% subsidy
• Covered Services
  – Internal Connections
  – Internet Access
  – Telecommunications
Competitively Neutral

Universal Service support mechanisms and rules neither unfairly advantage nor disadvantage one provider over another, and neither favor nor disfavor one technology over another.
Federal Incentives: Telehealth
Telehealth: The Network

- Secure private medical network
- HIPAA compliant
- Supports 2-way video conferencing
- CME from Children’s & Virginia Mason hospitals
- Home health care services
  - Monitor elder patients
  - Provide chronic care management
  - Manage diabetes care and treatment
GCI Telehealth: Life Saved

- A woman in Alaska's Northwest Arctic Borough goes into labor, hundreds of miles away from the nearest doctor
- Doctors 200 miles away, in the town of Kotzebue, guided the village's health practitioner through the delivery using live, two-way video and voice technologies
- Now more than half of doctors’ contact with patients is through telemedicine and thousands of "tele-consultations" occur in the region each year
Local Partners

• Consortium to provide 10 villages in the Northwest Arctic region with hi-speed Internet access and services
• Partners: Maniilaq Association, OTZ Telephone Cooperative, GCI
• Need for broadband services
  – Business, residents, community resources
• Ability to offer affordable service to community
  – Single entity difficulties due to area logistics
  – Consortium to offer service at affordable rates
• Results: 90% of sign-ups are for hi-speed; rates are about $45 for hi-speed; $25 for low-speed
Case Study: Inutek.net

Maniilaq Training & Recruitment Program

• Recruit locally
• Work with the school district to identify students that are interested in technology
  – Provide summer employment while they are in school
• Build a highly motivated and qualified team of local network technicians
Ingredients for Partnership Success

- **GCI (Network)**
  - Technology
  - Statewide scale
  - Efficient delivery platform

- **Maniilaq (User)**
  - Market
  - Local people/local knowledge
  - Anchor tenant
Engineering New Solutions: GCI Wireless ISP

- GCI providing rural WISP in more than 300 communities by end of 2004
- Toll free help lines
- Local installers
- 583 subscribers
- 5,489 households, 10% penetration rate
Why Wireless Works in Rural Alaska

- Rural community, education and business needs
- Satellite earth station facilities already in place
- Partnering organizations willing to work together
- Communities compact since there are few roads
- In much of the state there are few trees

The Internet will create a virtual interstate highway to our villages where we can maintain cultural spirit, values and Inupiat traditions, but also give instant access to health, education and commerce opportunities anywhere on the globe.

– Dennis Tiepelman, Former president and CEO, Maniilaq Association
Engineering New Solutions: Digital Local Phone Service

- Cable telephony
- Phone, Internet, Cable all over coax
- Single box on exterior of the home
- No need for the ILEC – saves $19/mo. per customer
- 8,000-12,000 lines this year
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Thank You * Contact Me Anytime

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