Broadband as Essential Infrastructure
Bringing Broadband to Anacortes
June 2021
AGENDA

History of Planning

History of Deployment

Current State

Questions
HISTORY OF PLANNING

Mayoral candidate’s campaign reveals widespread interest

Overture to competitive service provider

Two parallel paths

<table>
<thead>
<tr>
<th>Municipal Broadband</th>
<th>City-internal Telemetry</th>
</tr>
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<tbody>
<tr>
<td>RFP to service providers</td>
<td>Exploration of fiber in waterline</td>
</tr>
<tr>
<td>No satisfactory offers</td>
<td>NoaNet retained to advise</td>
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<tr>
<td>Council drafts business plan</td>
<td>PW deploys telemetry fiber</td>
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<tr>
<td>Community survey</td>
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<td>2-year pilot approved</td>
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BASINESS PLAN GOALS
Developed by Council

- Deliver High Speed Residential and Business Internet Service at Competitive Prices Throughout the Community
- Provide Excellent Customer Service
- Achieve a Market Share of 35% or More
- Pay for any Construction Liabilities (loans) with Subscriber Revenue
- Achieve Payback On Construction Investment in 15-20 years
- Become Cash Flow Positive in 2-3 years
- Spur Local Business Development and Economic Growth
HISTORY OF DEPLOYMENT

TELEMETRY SYSTEM
- Backhaul fiber deployed in 36-inch water main
- Backbone telemetry fiber deployed with traditional aerial & underground methods

GPON INFRASTRUCTURE
- NoaNet recommends Gigabit Passive Optical Network
- City approves purchase of router & GPON transport equipment
- Small network equipment room constructed
- Staff hired, business policies & processes developed
- Fiber deployed aerially in pilot areas
- Customers placed in service in pilot areas
HISTORY OF DEPLOYMENT

Internet

Router

Patch Panel

OLT

10 Gbps

Redundant Interconnections

Splitter

Cabinet

Splice Closure

Customer Premise

Optical Network Terminal

ONT

City Staff

Drop cable

Backbone Cable

Backbone Distribution Cable

Contractor

MST

Multi-port Service Terminal

Optical Line Terminal

Multi-port Service Terminal

Optical Network Terminal

Customer Premise

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MSTMST
We will provide locally run Internet service that is faster, more reliable and more affordable than any of our competitors’ service.
# CURRENT STATE

## Service Plans

- **Faster Speeds**
- **Lower Prices**
- **More Reliable**
- **Locally Run**

### Residential Plans

<table>
<thead>
<tr>
<th>Speed</th>
<th>Cost</th>
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</thead>
<tbody>
<tr>
<td>100 Mbps</td>
<td>$39/month</td>
</tr>
<tr>
<td>1 Gbps</td>
<td>$69/month</td>
</tr>
<tr>
<td>Managed WiFi</td>
<td>$10/month</td>
</tr>
<tr>
<td>Install Fee</td>
<td>$100</td>
</tr>
</tbody>
</table>

### Business Plans

<table>
<thead>
<tr>
<th>Speed</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>100 Mbps</td>
<td>$89/month</td>
</tr>
<tr>
<td>1 Gbps</td>
<td>$149/month</td>
</tr>
<tr>
<td>Managed WiFi</td>
<td>$10/month</td>
</tr>
<tr>
<td>Install Fee</td>
<td>$100</td>
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</table>
CURRENT STATE
Service Areas

- 3 Pilot Areas
- One Backbone Expansion
- Passes 2,273 Potential Customers
- Slightly more than 780 Customers In-service
- Slightly more than $50,000 Monthly Revenue
- ~1,350 Orders Citywide Waiting to be Installed
CURRENT STATE
Under Construction Service Area

- Passes 2,375 premises
- After this expansion, the network will pass 4,648 potential customers
CURRENT STATE
Planned Expansion Area

- Passes 1,815 premises
- After this expansion, the network will pass 6,463 potential customers
CURRENT STATE

Planned Expansion Area

- Passes 872 premises
- After this expansion, the network will pass 7,335 potential customers
CURRENT STATE
Org Chart

Administrative Services Director

Municipal Broadband Business Manager

Network Technician

Business Operations Coordinator

Outside Plant Coordinator

Lead Field Technician

Field Technician

Field Technician

Field Technician

Run aerial & underground service drops
Place inside wiring
Place & provision end device
Two more Field Technicians to be added early Sept

Monitors network
Primary interface with outsourced NOC
Customer service visits

Processes orders
Schedules customer installations
Handles customer inquiries

Plans customer service drops
Supervises contractors
Oversees all outside plant

Oversees all outside plant
LESSONS LEARNED

- Elected Officials MUST be the Initiative’s Primary Champions
- Community Support
- Business Plan to Demonstrate Financial Viability & Track Performance
- Mindset Jump from “Municipal Business-As-Usual” to “Business World Realities”
- Partnerships to Capitalize on Expertise and Efficiencies
- Internal Partners - Finance Department, Human Resources, Legal Department
- **Substantial** Seed Capital
- Acceptance of Creating a Start-up Venture Constrained by Municipal Requirements (procurement, contracting)
- Incurring Debt, Accruing Revenues, Posting Expenses...General Fund or Enterprise Fund?
- Determination to Overcome Challenges