

# North Prince of Wales

Connectivity Survey

# Terminology

- VTC
  - Video Teleconference
- TBH
  - Tele-Behavior Health
- WAN
  - Wide Area Network
- Symmetrical
  - Used to describe connectivity that has the same bandwidth up and down. i.e. 1 Mbps both for uploading and downloading
- Asymmetrical
  - Used to describe connectivity that *does not* have the same bandwidth up and down. i.e. 1 Mbps download and 512 kbps upload.

# Technology

- **Bandwidth**
  - A term used to describe the amount or measurement of data transfer, such as 1 meg of bandwidth
- **Terrestrial**
  - A category of connectivity where the signal goes across the Earth's surface
    - Examples: Copper, Microwave, Fiber
- **Satellite**
  - A category of connectivity where the signal leaves Earth's surface
- **Broadband**
  - Defined by the FCC as 4 Mbps downstream and 1 Mbps upstream
- **T1**
  - A dedicated symmetrical 1.5 mbps point to point connection
- **WAN Optimization**
  - A technology that helps reduce the effects of latency

# Visual Differences

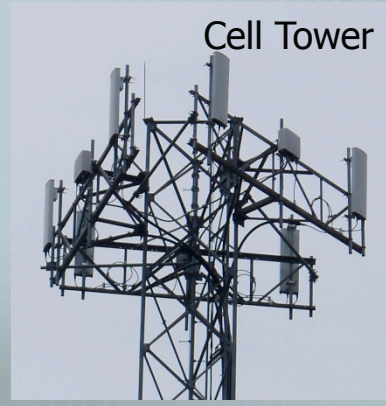
Copper



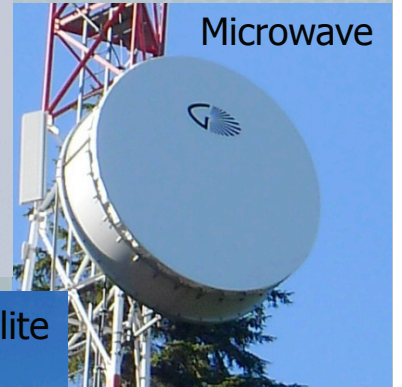
Fiber



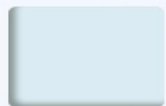
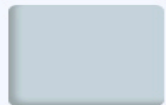
Cell Tower



Microwave



Satellite



# Communities in Review

- Coffman Cove
  - Current Connectivity
    - Starband satellite provider
      - Unknown bandwidth
      - Not very fast
        - Most likely due to latency issues
    - Available Connectivity
      - Microwave and Fiber
        - Terrestrial services greatly reduce latency
  - TBH Location
    - New clinic
      - estimated completion summer 2013

# Communities in Review



Coffman Cove:  
City Offices and Library



Coffman Cove:  
Site of future clinic



# Communities in Review

- Naukati Bay
  - Current Connectivity
    - Satellite
      - Estimate 1 mbps down & 512 kbps up
  - Available Connectivity
    - Microwave
  - TBH Location
    - School – room off gym
      - To be used after hours



# Communities in Review



Naukati Bay:  
VTC in use at school



Naukati Bay:  
Potential TBH location



Naukati Bay:  
Door to TBH location



# Communities in Review

- Port Protection
  - Current Connectivity
    - Satellite
      - Estimate 1 mbps down & 512 kbps up
  - Available Connectivity
    - Microwave
- TBH Location
  - School – library, current VTC equipment in room
    - To be used after hours
    - Heated year round
    - VTC equipment will need an upgrade
      - Option 2 – provide second set of VTC equipment

# Communities in Review



Port Protection



Port Protection:  
Current VTC setup



Port Protection:  
Microwave tower



# Communities in Review

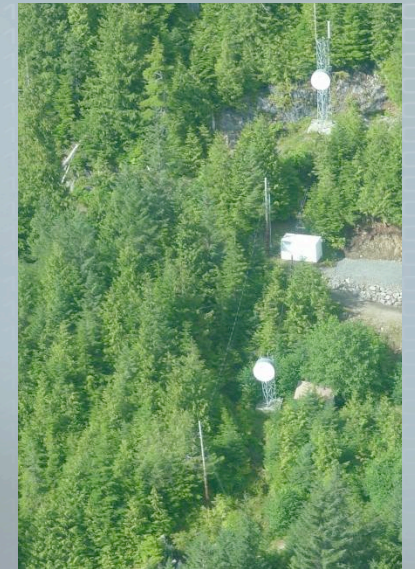
- Edna Bay
  - Current Connectivity
    - Satellite
      - Known 1 mbps down & 512 kbps up
  - Available Connectivity
    - Microwave
  - TBH Location
    - School – “seniors room”, current VTC equipment in room
      - To be used after hours
      - VTC equipment will need an upgrade
        - Option 2 – provide second set of VTC equipment

# Communities in Review



Edna Bay:  
VTC equipment

Edna Bay:  
Primary & redundant  
satellites, at school



Edna Bay:  
Microwave towers



# Communities in Review

- Whale Pass
  - Current Connectivity
    - Satellite
      - Known 1 mbps down & 512 kbps up
      - Reports working at about 800 kbps down & 300 kbps up
  - Available Connectivity
    - Microwave
- TBH Location
  - Library, current VTC equipment in room
    - To be used after hours
    - Current brand new VTC equipment
      - Option 2 – provide second set of VTC equipment

# Communities in Review



Whale Pass:  
Library

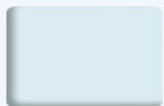


Whale Pass:  
Current VTC equipment in library



# Communities in Review

- Gustavus
  - Recently acquired connectivity to the staffed clinic
- Has not had an on site visit



# Challenges

- Outdated equipment
  - Not possible to get support or warranty
  - Picture quality less than current equipment
  - Determine if e-Rate / RHC programs will allow equipment to be shared between programs
- Poor current network connectivity
  - Asymmetrical network speeds
    - Will likely lead to poor VTC experience
  - Satellite has a lot of latency
    - Contributor to poor VTC experience as well as feeling of “slow” network speeds

