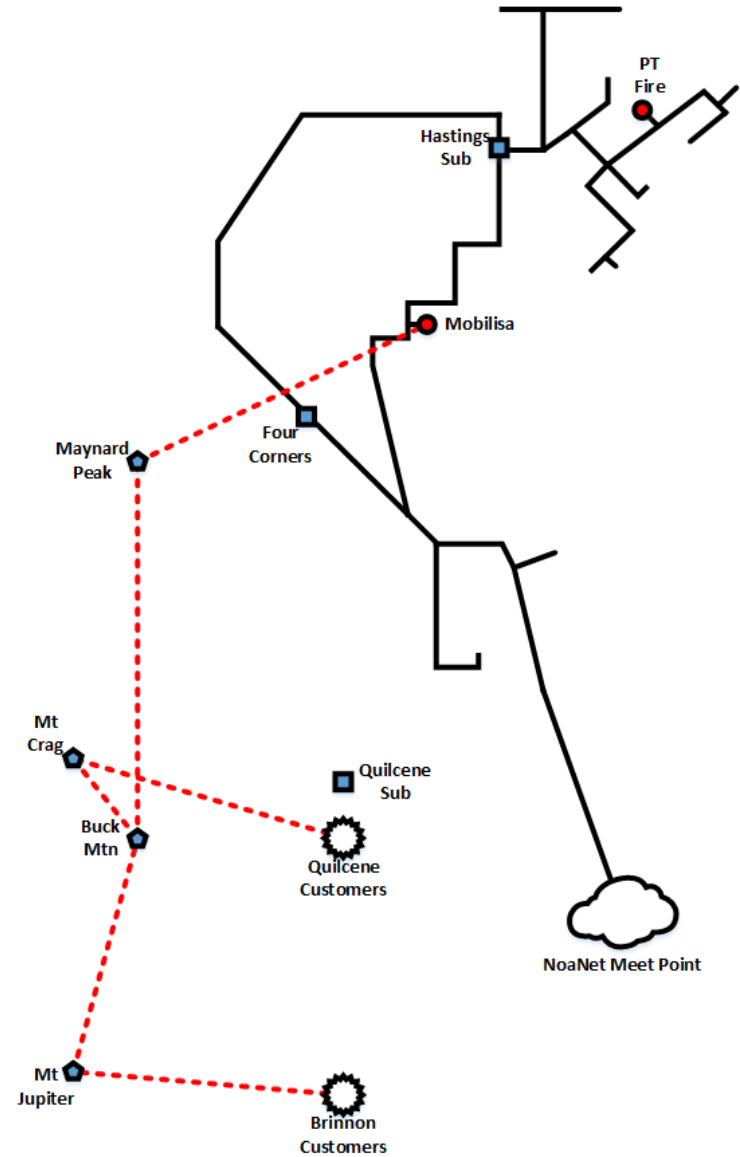


COS Survey Update and Telecom Overview

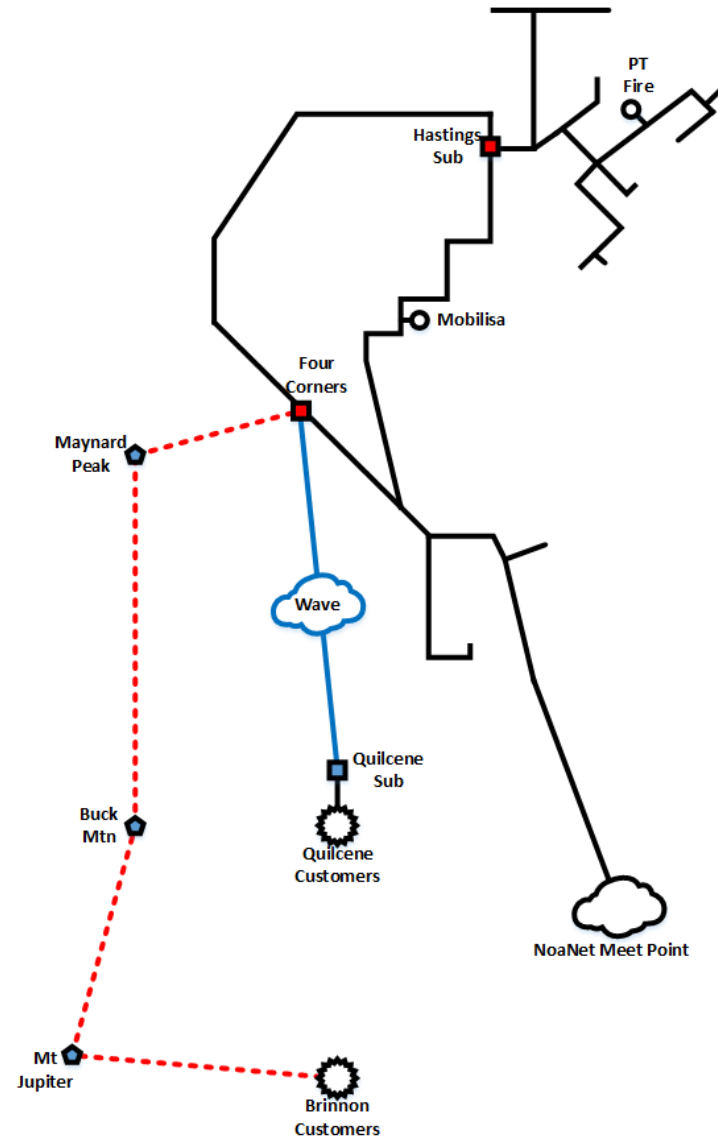
Presented to Jefferson PUD BOC
by Bill Graham, Resource Manager
and Jerry Wilson, Telecom Manager

July 31, 2017

Jefferson PUD Telecom Service Network (Current)



Jefferson PUD Telecom Service Network (Fall 2017)



Survey Overview

- ▶ As of 7/30/2017...
- ▶ About 90 days into survey.
- ▶ 728 unique locations
- ▶ 7 of 10 "Areas" have 50 or more surveys. Marrowstone Island has highest number at 112 surveys. PT has 100.
- ▶ 27 "Champions" - individuals willing to advocate for a build in their area.
- ▶ Interest in service is heavily split between wireless and fiber optics.
- ▶ Since last update, Dabob Bay and Oak Bay - Port Ludlow areas have significant increases in survey responses.

At an important decision point...

- ▶ Whether or not to go beyond just the “survey” element. This decision has yet to be made.
- ▶ Setting up zones, contacting homeowners about signing up, etc, will create the expectation that “something will happen” .
- ▶ Recommend starting with, at most, 3 zones.
- ▶ First zone connected will provide “proof of concept” and will likely generate more interest.

Other COS Surveys – Mason PUD 3

- ▶ **25 Construction Adder/Month**
 - ▶ Added to retailer bill - NOT PUD 3 bill
 - ▶ In addition to service charges
 - ▶ Will go into special fund to build future “Fiberhoods”.
 - ▶ Contraction adder expires after 12 years
- ▶ **ONLY charged to users in Fiberhoods**
 - ▶ Not paid for by PUD3 customers
- ▶ **Pre-Determine Neighborhoods - “Fiberhoods”**. Ideal fiberhoods will meet the following criteria:
 - ▶ Overhead power, or Underground power with conduit
 - ▶ Close to PUD facilities (HUT)
 - ▶ Unserved or underserved
 - ▶ Customer demand

Mason 3 Continued

- ▶ Fiberhoods will compete for priority through the COS Survey software.
 - ▶ Need a 75% take rate.
- ▶ 1 Gig ONLY
 - ▶ New Gig rate of \$35
 - ▶ Eliminate 100 Mbps “slower” service
 - ▶ Doesn't cost anything additional for PUD

Kitsap PUD

- ▶ Purpose is to “guide residential broadband deployment.”
- ▶ Builds off an existing fiber network used/funded for water system SCADA.
- ▶ Has used survey from initial survey phase thru construction phase (Poulsbo).
- ▶ Zones are small, typically no more than 2 or 3 streets and 10 to 20 potential hook ups.
- ▶ Pole attachment for service agreement with PSE.
- ▶ Funding through LUD process; matching tax dollars with customers funds recouped over number of years.



Zones

- ▶ “Zones” are locations of customer expressed demand for services, typically at the street or neighborhood level.
- ▶ In our case, the general services we are promoting are wireless and fiber optic broadband solutions.
- ▶ While not a point of no return, defining zones will create expectations that a fiber build is possible, if not immanent.
- ▶ The path forward from the establishment of zones requires targeted surveying and “sign ups”, until, if ever, a take rate threshold - 75% recommended - is met.

Defining Zones

- ▶ Recommended criteria:
 - ▶ Level of interest in broadband service - Locations where survey respondents have expressed positive interest in signing up for service. Negative surveys have been filtered out.
 - ▶ Unserved or underserved - Survey respondents are dissatisfied with their level of service or have no internet access.
 - ▶ Champions - Zones with champion advocates typically succeed better than those that don't have champions.
 - ▶ Infrastructure - Proximity to existing infrastructure or ease of deploying infrastructure.
 - ▶ Power-Must have overhead or underground power with conduit.

Financing

- ▶ COS Survey built-in business model. Service plus construction amortization.
- ▶ Local utility districts - Could be used to fund larger builds. Likely less practical for smaller (less than 20 hook ups).
- ▶ Mason “Fiberhood” model where customer pays monthly construction fee with service fee over 12 years.
- ▶ USDA Rural Utilities Services Loans - Broadband infrastructure loans application process open until September 30, 2017. PUD is eligible.

Next Steps

- ▶ Are we willing to build?
- ▶ Where to build?
- ▶ What Internet Service Providers want to participate?
- ▶ What financing model(s) do we want to consider? Mason 3? Kitsap?
- ▶ How do we “brand” PUD broadband services?
- ▶ Do we have enough survey information to proceed with a build?
- ▶ What pricing models are appropriate (including rates)?