

Getting Real about fixing Coastside Telecommunications

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April 20, 2023

OWN VOICE. ~ *InPerspective* by Gregg Diequez with Leo Gomez —

We said we have serious problems with telecommunications in the Midcoast in Part 1 of this series. Now let's discuss what we can do to fix them, and the progress and approaches we're considering.

Footnotes: to use, click the bracketed number and then click your browser Back button to return to the text where you were reading.

Images: **Click to enlarge** for improved readability in a new window.

The slide show below is the bulk of this article, so I'm not going to repeat it. I presented it to HMB at Council on 4/18/23. Here are the key points, starting with what are our options [[<< slide, Left](#)]:

Smart City Applications – Virtualized Fiber



Many Uses for Community Fiber

What should be done?

1. Nothing - Live With It
2. Wait for the Oligopoly and/or Regulators to respond to pressure
3. Construct a community-owned Fiber-optic To The Premises network (FTTP)
4. Move somewhere else

5

I'm not a big fan of waiting for a profit-seeking oligopoly and complicit/captured regulators to solve our communications vulnerabilities for us, in any reasonable timeframe, at any reasonable cost. Though I appreciate that Supv. Mueller is trying. Just emailing our most recent (it keeps evolving!) report on Coastside Communications vulnerabilities to the vendors involved has already triggered some actions, as Leo reports below. But we feel that exploring "rolling our own" Community Fiber Network might make a lot of sense, so that is why I proposed it to HMB.

How Community Fiber Can Help:

- Health and Safety
 - Improved emergency communications
 - Modern Telehealth
- Educational improvements
- Business development
- Reduced commutes - pollution / Employment Mobility
- Increased property values
- Capacity for a Digital Future
- Oh, and **WAY faster** performance...

14

The benefits are tangible , and importantly PROVEN IN HUNDREDS OF COMMUNITIES across the U.S. Heck, if Woodstock, VT (pop. 3,000) can offer “Wicked Fast” internet at 1 GIGABIT per second both UPLOAD and download, then why not here?^[1]

And they started in 2011 and have been modestly profitable since 2013. So this isn't some perpetual cost center asset with an infinite cost, like a memorial bench or a storm drain system – this thing might pay for itself! Maybe. Which is why we have to examine this in detail, including controls on all aspects of the money.

The featured graphic for this article shows how fiber networks are used in modern communities to support communications networks for: Public Safety, Education, Traffic Controls, Public Works [SCADA], Smart Grid, as well as commercial content providers (ISP's = Internet Service Providers) who compete to sell their services on the shared network. IMHO, if HMB hopes to realize the Business Development goals it has described, it MUST have First World internet services, and right now, we do not. [If you'd rather watch video than read, a 4 min. Vision of a Community Fiber Network is below.]

An additional reason for hope is that California already announced it's Middle Mile program for underserved communities. I never thought they'd consider us for the program, but there are maps showing that, under certain criteria, a fiber cable down Hwy 1 is being considered, and other maps showing Hwy 92 as well. [*<<Slide Left*] In fact, HMB reported in their agenda packet that they think this is going to happen^[2]. I'll be attending the Middle Mile Advisory Council tomorrow, and talking with an administrator for our region (who is from Pacifica!) next week, so it just might be that the first major obstacle –



Note: Hwy 92 NOT included

laying a fiber backbone right through the middle of our area – will be done by 2025 or 26.^[3] Matt Chidester and I had seen that

concept in a forward-planning Caltrans presentation about a year ago, so that increases my faith. Our slide presentation includes a more generous vision of expanded connectivity [Slide Right>>], extending down to Pescadero and up to La Honda, but economic and population considerations might mean the State would not fund that backbone. We have reached out to PMAC and others to see if they want to be involved in the dialog.



Broad Vision of Midcoast Fiber

Short term efforts

Initial Steps ... to A Community Fiber Future

- > Community Dialog => Vision
- > Organizational Decision
- > Technical Design & Cost Commitments
- > Funding / Anchor Accounts
- > Accountability Provisions
 - Service Level Agreement (speed/uptime/costs)

20

We’ve formed an MCC work group, starting with Leo and friends, and I expect to be adding members from CERT, HMB, and local residents with expertise in networks and fundraising. Of course, we may get actual staff help if the County and HMB get involved more fully. The first major step is to agree on the Vision, meaning that Coastside Communications are inadequate, are a shared priority, and that this type of network is worth exploring as a solution. To that end, I expect to ask all local agencies to review our report, concur with or refine our findings (in writing), and endorse the problem statement. I don’t expect to ask for endorsement of solutions, because they are not yet fully explained and analyzed.

Following that, we’ll need to form a legal entity to fund, build, and operate this network, and the other steps flow logically from there [Slide at Right>>]. Thought has already been given to other items on this list, as you can read in the report and/or slide show, but it’s premature to get ahead until we have a decision on where the backbone is going to come from. If not the State, perhaps AT&T, as theirs is way underutilized.

Leo’s report

In the meantime, Leo has distributed the report to CEO’s of Comcast, Verizon, AT&T, T-Mobile and reports this progress already:

1. He is in a dialog with Verizon about the unavailability of their service (*my family is quitting as we speak*) and the options for cell tower placement and improved maintenance.
2. He is talking to AT&T about how they are missing potential customers because of confusion between ZIP codes and the City. Many of you know that package delivery is often messed up because, for example, El Granada can also show up as Half Moon Bay. Maybe this is why they skipped entire neighborhoods with fiber? AT&T has asked us to provide them with addresses of people that can't get service but should be able to; they will then forward on to their engineering departments to fix the issue.
3. Comcast has replaced batteries in Montara so that service can continue to work for a few hours (~6.5 hours). No comment on redundancy, yet again misdirecting and saying that service levels are normal "Now".
4. We have observed Comcast running more fiber lines in Montara – though not solving the 'broken loop' problem they currently face.

Slide show presented to HMB: https://www.coastsidebuzz.com/wp-content/uploads/2023/04/FiberNetwork-HMB_041723C.pdf

The Community Network Concept: Automated Open Access (video)

Here is a 4 minute video from Entry Point Networks on the issue of Community Fiber Networks. They make the point that so many other communities have made: Barriers to Affordability – Availability – Adoption of internet services are now a significant societal issue.

Video: https://www.youtube.com/watch?v=nLSeg_5thgA

FOOTNOTES:

[1] California Dreamin'... And the answer to the question is that we've been told California is the Worst Place In The Nation to lay fiber. So there's that.

[2] From the HMB agenda packet: https://legistarweb-production.s3.amazonaws.com/uploads/attachment/pdf/1897838/ATTACHMENT_2.pdf

"Work on this project shifted with the announcement of the State's Middle Mile Initiative, which will bring open fiber infrastructure down Highway 1 from Pacifica through the mid-Coast, into Half Moon Bay, and up 92, creating the redundant loop the seeking has been seeking [sic], by 2025. City staff has supported the permitting efforts related to the project, which will be completed by Caltrans. Staff participates in State and regional convenings on the project and along with the County is advocating for an expedited timeline. Staff continues to evaluate funding, including grants, State and federal programs, and other opportunities and other partnerships to enhance and improve digital infrastructure on the Coast. Staff is actively working with AT&T on development of a standard 5G agreement form, which can be replicated with other providers (Verizon, T-Mobile) to bring improved cell phone service to the Coast. AT&T has recently indicated that they have delayed implementation on the Coastside. Staff is continuing to advocate and work with AT&T and other providers to move forward with

5G implementation expeditiously.”

[3] MMAC analysis site with customizable, interactive, zoomable map: <https://middle-mile-broadband-initiative.cdt.ca.gov/pages/data-and-analysis>

Another MMAC site shows Midcoast with insufficient capacity, including HMB:
<https://experience.arcgis.com/experience/7e36cd98831844649b900fcd2b327e10/pages/Segments/?views=Sufficient-Capacity>

Overall State Plan map: [Proposed Statewide Implementation of Middle Mile broadband.](#)

This map shows where more fiber would be expeditious to build:
<https://experience.arcgis.com/experience/eeb73e51a7064b2a86f0cd6aed915224/page/Segments/?views=Can-Be-Built-Expeditiously>

Bottom line: it’s unclear what criteria will dominate and what decisions will result, but we’re in the running....



More From Gregg Dieguez ~ “InPerspective”



Mr. Dieguez is a native San Franciscan, longtime San Mateo County resident, and semi-retired entrepreneur who causes occasional controversy on the Coastside. He is a member of the MCC, but his opinions here are his own, and not those of the Council. He lives in Montara. He loves a productive dialog in search of shared understanding. >>

<< Leo Gomez is a Technical Solutions Consultant with 19 years of experience facilitating IT solutions using communication technology to host business events and connect client organizations. He has a lifetime fascination with wireless technologies and infrastructure.

During the COVID pandemic, Mr. Gomez pursued a hobby of visiting and mapping every telecommunications link in our area, which served as the foundational research for this story and led to the creation of [his interactive map](#).