

CENIC One Gigabit or Bust™ Initiative
Minutes of the GIS Broadband Mapping Task Force Meeting on March 18, 2004

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Charter

The goal of this task force is to work with the State of California to develop requirements for incorporating detailed fiber maps in the California GIS system. These maps will become a critical resource to communities and industries working on increasing deployment of fiber throughout the state.

Progress to Date

Since the December 17, 2003 Gigabit or Bust Initiative (GOBI) meeting in Sacramento the task force has had two meetings in Sacramento and several telephone meetings. We learned that it is very unlikely that we will get fiber maps from the major communications companies. We may be able to get maps of high-speed service areas, but the process will be slow and require a lot of persistence.

We were able to identify a number of communities that have created fiber and service area maps and are willing to share the information with us:

- Fresno
- Palo Alto
- Kern County
- Fullerton
- Santa Rosa
- Central Coast Cable Routes
- San Diego

With the change of leadership in the Governor's office we have lost access to the state Geographic Information System (GIS) program. We continue to pursue that opportunity, but have also made contact with other GIS resources, principally the Interdisciplinary Spatial Information Systems Center (ISIS) at California State University, Fresno. Other organizations that might be able to host the data include the Public Utilities Commission, other universities, or a non-profit GIS organization.

Data Layers and Sources

The Task Force discussed which data layers would be needed for the project. We developed the following list:

- Backbone – where the carriers and cable companies have their long haul lines.
- CENIC/Education network
- Service areas – DSL, Cable Modem, etc.
- Rights of Way, including communications towers
- Metro rings, I-Nets
- Access points
- Demand – information intensive businesses and communities
- Gaps between demand and access to services.

The Task Force also identified several potential sources of data and GIS resources:

- The California Public Utilities Commission has requested data from all of the communications service providers. The response has been uneven, but may generate useful information for our project.
- Broadbandreports.com and DSLreports.com have maps on-line. We need to contact them directly about getting their data.
- BuyTelco.net also appears to have data that would be of interest to us.
- Mapinfo has a number of telecommunications layers, though the cost may be too high (www.mapinfo.com).
- Victor Braud, a CENIC consultant, has some very detailed data on fiber optic lines, but may not be able to share it.
- Mapping L.A. may have data about the Los Angeles region or resources to contribute (www.onramparts.org).
- Neighborhood Knowledge at UCLA has some impressive on-line GIS technology (nkca.ucla.edu).
- Humboldt State may be able to volunteer students to do demand analysis.

Another approach is to work with organizations using distributed computing tools, such as SETI@home, folding@home, and BOINC, a program at U.C. Berkeley. They may be able to use the data they collect from computers distributed in California to automatically build a map of service availability.

One issue we need to keep in mind is the accuracy and timeliness of the data we get.

Hot Communities Proposal

The Task Force proposed the idea of creating a map of “hot communities” in California. The characteristics of such communities might include,

- Availability of 100 megabit or greater connectivity to the home
- Firm plans to deploy fiber to the home
- Local government Institutional Networks with at least 1 gigabit
- Schools with at least 100 megabits
- Wide area, free or affordable (~\$40/month), high-speed wireless
- Good public policies for encouraging broadband deployment

Current examples of hot communities include Fontana, Mission Bay, Palo Alto, and Cerritos.

The map would help us showcase and recognize communities using best practices. The map would change over time as the criteria are updated and even faster services become available.

A form for collecting information on hot communities is available for distribution.

Next Steps

1. Identify a free or affordable GIS resource that can host the data and prepare maps. (Seth, Susan, Brad)
2. Identify and contact the potential sources of data identified above. Begin the process of acquiring and consolidating the data (including the experimentation with automated data gathering tools). (All)
3. Decide whether or not to pursue the “hot communities” mapping idea.
4. Consult with CENIC’s lawyers on the possibility of using Victor Braud’s data in some form. (Susan)
5. Reinforce the partnership with the State of California -- especially the Governor's Office -- beginning with a meeting with Business, Transportation and Housing Secretary Sunne Wright McPeak (ideally resulting in a referral to the economic development team within the Governor's Office). (Seth, Susan, Julie)
6. Explore utilization of the Governor’s Office of Planning and Research (OPR) as the coordinating entity for the consolidated statewide effort. UCLA and CSU Humboldt could be technological partners that aggregate data from all the available sources.
7. Work with the counties (CSAC) and the cities (CA League of Cities) to acquire mapping data from the municipalities that approve the placement of broadband infrastructure within their communities. (Susan)
8. Contact the UCLA School of Public Policy personnel who established and maintain the Neighborhood Knowledge California (NKCA) interactive mapping website, to encourage them to establish appropriate data layers depicting broadband infrastructure and access that can be added into their existing system. (Brad)
9. Contact the CSU Humboldt division that has an extensive GIS program to encourage them to establish appropriate data layers depicting broadband infrastructure and access. (Tina Nerat)
10. Explore the feasibility of doing demand analysis. CSU Humboldt is a possibility. (Tina Nerat)

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