

**COUNTY OF SAN LUIS OBISPO BOARD OF SUPERVISORS
AGENDA ITEM TRANSMITTAL**

(1) DEPARTMENT Information Technology	(2) MEETING DATE 10/16/2012	(3) CONTACT/PHONE Guy Savage (805) 781-5200	
(4) SUBJECT A presentation and strategic planning on fiber optic availability within San Luis Obispo County.			
(5) RECOMMENDED ACTION It is recommended that your Board receive the presentation on fiber optic strategic planning for discussion and provide direction that your Board deems appropriate.			
(6) FUNDING SOURCE(S) N/A	(7) CURRENT YEAR FINANCIAL IMPACT \$0.00	(8) ANNUAL FINANCIAL IMPACT \$0.00	(9) BUDGETED? N/A
(10) AGENDA PLACEMENT { } Consent { } Presentation { } Hearing (Time Est. _____) { X } Board Business (Time Est. <u>30 Min</u>)			
(11) EXECUTED DOCUMENTS { } Resolutions { } Contracts { } Ordinances { X } N/A			
(12) OUTLINE AGREEMENT REQUISITION NUMBER (OAR) N/A		(13) BUDGET ADJUSTMENT REQUIRED? BAR ID Number: N/A { } 4/5th's Vote Required { X } N/A	
(14) LOCATION MAP N/A	(15) BUSINESS IMPACT STATEMENT? No	(16) AGENDA ITEM HISTORY { } N/A Date <u>February 1, 2011</u>	
(17) ADMINISTRATIVE OFFICE REVIEW Reviewed by Vincent Morici			
(18) SUPERVISOR DISTRICT(S) All Districts -			

County of San Luis Obispo



TO: Board of Supervisors

FROM: Information Technology / Guy Savage
(805) 781-5200

DATE: 10/16/2012

SUBJECT: A presentation and strategic planning on fiber optic availability within San Luis Obispo County.

RECOMMENDATION

It is recommended that your Board receive the presentation on fiber optic strategic planning for discussion and provide direction that your Board deems appropriate.

DISCUSSION

The County of San Luis Obispo relies heavily on digital communications to execute the daily operations of County government. The majority of the digital communications between County offices traverse fiber optic communications lines. By increasing the general awareness of how fiber works, what the County owns, and the resultant opportunities, County officials can make more informed decisions.

As noted in the presentation provided on February 1, 2011, providing effective access to the Internet using broadband technologies has been described as the great infrastructure challenge of the early 21st Century. Broadband access and fiber optics are important to San Luis Obispo County as they affect the safety and health of citizens, improve delivery of governmental services, and support economic prosperity. During the meeting of February 1, 2011, your Board requested that a follow up presentation be made on the progress of expansion of the County of San Luis Obispo's fiber optic infrastructure. The follow up was delayed until such time as the Nacimiento Water Project Memorandum of Understanding could be completed.

The Federal Communications Commission (FCC) defines broadband as an average connection speed of 4 megabits per second (mbps) download and 1mbps upload. To put the FCC definition in perspective, a typical family vacation electronic photo album of 100 pictures would take approximately 13 minutes to download and over an hour to upload. While generally meeting the FCC definition with an average speed of 4mbps, the United States currently ranks 25th in average Internet connection speed in the world behind countries such as South Korea (34mbps), Sweden (22mbps), Netherlands (21mbps), and Japan (18mbps). California ranks 13th in the nation with average download speeds around 5mbps. However, average upload speeds within California are a paltry 1.3mbps. Overall, San Luis Obispo County fares slightly better than state averages.

The County's fiber optic infrastructure is built upon three primary backbones: Unified Metropolitan Area Network (UMAN) joint powers authority owned fiber, Level 3/WilTel negotiated fiber, and Nacimiento Water Project partnership fiber. Lateral connections from these backbones are being created to connect County offices to the County's infrastructure. To date, the County's backbones and lateral connections have been built for, or are restricted to, governmental and public education uses. Consequently, unused fiber cannot be sold, leased, or otherwise repurposed for commercial uses. At the same time, commercial entities within San Luis Obispo County are continuing to build-out their local fiber infrastructure. Companies such as Digital West, Charter, Time Warner, AT&T, and Verizon, have various plans to add or expand privately-owned fiber networks for business and homeowner use within the county. In many cases, these privately-owned fiber networks will be connected to the Trans-Pacific fiber which has landing sites in Morro Bay, San Luis

Obispo, and Grover Beach. However, expansion is slow because the county lacks the necessary population densities required to make it commercially viable for large commercial carriers to invest in building the latest technologies. The biggest obstacle to expanding fiber cabling is the cost of the construction.

Local government can encourage communications investments through partnerships with other public organizations, private entities, or by making the permitting and construction processes more attractive. For instance, the County could encourage private investment by enacting a “dig policy” that notifies local providers whenever the County will be digging trenches or putting in underground infrastructure. Carriers might be willing to supplement the cost of the dig provided they are given the opportunity to lay fiber optics in the trench prior to it being filled. Similarly, by partnering with other local government entities, cities, the State of California, or federal government agencies, the County could increase access between County buildings while simultaneously improving connectivity for our community partners and lowering individual investment costs.

In summary, San Luis Obispo County citizens and businesses receive broadband services that are slightly better than the majority of Americans. However, the United States is critically behind the rest of the world. Forging partnerships and adopting policy changes takes time. By encouraging public and private investment in fiber optic projects, the County can increase connectivity for citizens and businesses in a cost effective manner.

OTHER AGENCY INVOLVEMENT/IMPACT

All County departments rely on fiber optic technologies to execute daily operations.

FINANCIAL CONSIDERATIONS

There are no financial considerations at this time.

RESULTS

Strategy discussions will enhance communications between your Board and staff while providing an opportunity for your Board to provide feedback and direction that promotes enhanced safety and health of citizens, improved delivery of governmental services, and economic prosperity of the County.