|  | <!DOCTYPE html> |
| --- | --- |
|  | <html> |
|  | <head> |
|  | <title>Google Fiber</title> |
|  | <link rel="stylesheet" type="text/css" href="[CommentsStylesheet.css](http://k-band.us/CommentsStylesheet.css)"> |
|  | </head> |
|  |  |
|  | <body> |
|  | <header></header> |
|  |  |
|  | <main> |
|  |  |
|  | <article> |
|  |  |
|  | <h3 id="title">Google Fiber and the Cost of Connectivity</h3> |
|  | <p id="author">Lauren Saine, January 29, 2015</p> |
|  |  |
|  | <p> Many programmers don't give a second thought to their internet or data transport expense. Some think that to start a web-based business they just need an idea and some code. But they also need internet connectivity, and San Francisco startups may be paying too much.</p> |
|  |  |
|  | <p>By one <a href="<http://www.newamerica.org/oti/the-cost-of-connectivity-2014/>">account</a> San Francisco ranks 20th among world cities in internet speed and price. In the U.S., Chattanooga and Kansas City have faster, cheaper muni networks, with $70/month gigabit service. San Francisco ranked as high as it did only because of local carrier Webpass, with 200Mbps at $30/month. Even some smaller localities in California, including <a href="<http://www.sanleandro.org/depts/cd/bizdev/broadband/lit_san_leandro.asp>">San Leandro</a> and <a href="<http://www.plumassierratelecommunications.com/fiber_updates.html>">Plumas-Sierra County,</a> have better networks.</p> |
|  |  |
|  | <p>Google Fiber wants to come to <a href="<https://fiber.google.com/newcities/>">San Jose</a> and has <a href="<http://docs.cpuc.ca.gov/SearchRes.aspx?DocFormat=ALL&DocID=97720099>">petitioned</a> the California Public Utilities Commission for the right to access public utility infrastructure--telephone and electric utility poles--based on its status as a <a href="<http://www.leginfo.ca.gov/cgi-bin/displaycode?section=puc&group=05001-06000&file=5800-5970>">state video franchisee</a>. Access to utility poles would greatly streamline the fiber network buildout process and help clear the way for $70-100/month gigabit service.</p> |
|  |  |
|  | <p>Google may not be inclined to target San Francisco in light of the <a href="<http://pando.com/2014/02/25/having-being-burned-once-before-google-wont-bring-fiber-to-san-francisco/>">difficulties</a> it faced a few years ago trying to bring free citywide wifi to San Francisco. This time around, the city should welcome Google Fiber by joining with other California cities to help get the petition approved.</p> |
|  |  |
|  | <p>California law <a href="<http://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=PUC&sectionNum=710.>">prohibits</a> regulation of the internet, including service quality and price. Although it can be difficult to compare prices--or even to determine just what prices are on offer--competition, either through private players or through municipal networks, is the way to bring down the cost of connectivity. But even San Francisco suffers from the big telco and big cable stranglehold on communications infrastructure.</p> |
|  |  |
|  | <p>San Francisco is not unique among American cities in not having competitive alternatives to the telecom and cable duopoly in retail digital transport. However, the city is unique as a <a href="<http://www.internetexchangemap.com/#/building/8558>">center</a> for network capacity growth (through its <a href="<https://gigaom.com/2012/11/01/how-the-internet-economy-works-guns-butter-and-bandwidth/>">Internet Exchange Points),</a> and for advanced technological innovation. It should step up and support this move toward better connectivity for its thriving digital economy.</p> |
|  |  |
|  | <p>Local incumbents AT&T and Comcast don't have to share their cables and poles with other internet service providers (ISPs) since ISPs are not public utilities under current law, so would-be competitors must overbuild existing infrastructure, normally a prohibitive expense. This would be like requiring a new retail energy company to string its own electric wires down the other side of the street.</p> |
|  |  |
|  | <p>ISPs are not <a href="<http://www.law.cornell.edu/uscode/text/47/153>">common carriers\*</a> with <a href="<http://www.law.cornell.edu/uscode/text/47/251>">interconnection</a> and <a href="<http://www.law.cornell.edu/uscode/text/47/224>">pole attachment</a> rights under federal law, but ISPs offering voice service or video via cable are entitled to public utility infrastructure access under California <a href="<http://www.leginfo.ca.gov/pub/05-06/bill/asm/ab_2951-3000/ab_2987_bill_20060929_chaptered.html>">law.</a> San Francisco-based Webpass has <a href="<http://docs.cpuc.ca.gov/SearchRes.aspx?DocFormat=ALL&DocID=89095010>">applied</a> for a license as a telephone corporation, which would give it federal interconnection and pole attachment rights based on their status as a telecommunications common carrier. Google Fiber's claim to infrastructure access is based on their status as a state video franchisee under <a href="<http://www.leginfo.ca.gov/pub/05-06/bill/asm/ab_2951-3000/ab_2987_bill_20060929_chaptered.html>">DIVCA.</a></p> |
|  |  |
|  | <p>Access to poles, ducts, conduits, and rights-of-way is a tangled web of <a href="<http://download.broadband.gov/plan/national-broadband-plan-chapter-6-infrastructure.pdf>"> federal, state, and local</a> jurisdictional claims and <a href="<http://www.oecd.org/internet/ieconomy/40390753.pdf>">international</a> concern, and a subject of infighting between pole owners and renters over delays and overcharges. Pole overloading also concerns state regulators, but that is a separate and <a href="<http://delaps1.cpuc.ca.gov/CPUCProceedingLookup/f?p=401:57:15795209812965::NO>">ongoing</a> safety and reliability issue that impacts the entire communications ecosystem.</p> |
|  |  |
|  | <p>AT&T and California's three investor-owned energy companies PGE, SDE, and SCE, strongly object to Google's petition on procedural and jurisdictional grounds. But AT&T itself <a href="<http://docs.cpuc.ca.gov/SearchRes.aspx?DocFormat=ALL&DocID=90904541>">wants</a> nondiscriminatory access to energy company poles for its wireless business! Not surprisingly, given their monopoly control of the communications grid, AT&T and Verizon <a href="<https://apps.fcc.gov/edocs_public/attachmatch/DA-14-1862A1.pdf>">reported</a> upwards of 50% profitability -- EBITDA as a percentage of service revenue -- for their wireless businesses for the first half of 2014.</p> |
|  |  |
|  | <p>Granted, if Google gets the go ahead to deploy fiber in San Francisco, it would be a network infrastructure owner who could control access. However, that's the best hope right now for competition in the ISP market. And if San Francisco steps forward to support Google Fiber, the mere suggestion of expansion here <a href="<https://gigaom.com/2015/01/27/google-fiber-coming-to-four-more-cities/>">could drive incumbents</a> AT&T and Comcast to provide better service.</p> |
|  |  |
|  | <p id="update"> |
|  | \*The FCC adopted the <a href="<https://apps.fcc.gov/edocs_public/attachmatch/FCC-15-24A1.pdf>">Open Internet Order</a> on February 26, 2015, reclassifying internet service providers as Title II common carriers.<br> |
|  |  |
|  | <p id="update"> |
|  | Updated May 7, 2015: The Commission adopted a decision denying state video franchisees a right to utility pole access--but recognizing that a state video franchisee may also be a cable television corporation entitled to such access. Later, in <a href= "<http://www.ntia.doc.gov/files/ntia/google_inc_boc.pdf>">comments</a> to the Departments of Commerce and Agriculture, Google zeroed in on access to existing infrastructure as key to broadband deployment and adoption, recommending these regulatory changes: publish a national inventory of poles and conduits, reduce delays for pole attachments and conduit occupancy, allow providers to use their own contractors for pole attachments and make-ready work, open access to transmission lines and towers for middle mile deployment, and preempt state laws that delay infrastructure access. (See <a href="<http://policyworks.us/Poles.html>">Who Controls the Poles?</a>.) |
|  | </p> |
|  | <p>\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_</p> |
|  | <p>Background: common carrier v public utility</p> |
|  | <p>Common carrier law can be traced back to old England, when courts imposed special responsibilities on certain types of businesses. Those businesses had a special duty of care to customers because of their unique opportunity to do harm, as custodians of people and goods--passenger carriage, shipping, trucking, innkeeping, and so on--and they had special importance as engines of economic activity. They were required to serve all customers, at the same price and under the same conditions.</p> |
|  | <p>Public utility law developed in modern times through state law. Public utilities are "public" in that they require high up-front infrastructure investments and are thus natural monopolies, and they are "utilities" in that their services are essential to people's everyday lives. Public utility regulation requires those companies to serve all customers in their territories and serve them at reasonable prices, with certain quality of service and consumer protection requirements.</p> |
|  | <p>Common carrier law protects access by end-users in retail markets; public utility law also protects access by competitors in wholesale markets. Companies that are neither common carriers nor public utilities deal with customers and each other by contract. This is currently how long-haul internet transport owners peer with each other to form the global IP network.</p> |
|  |  |
|  |  |
|  | </article> |
|  |  |
|  | </main> |
|  | </body> |
|  | </html> |