

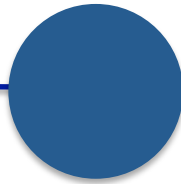
Superfast Internet

Steven Bauer

April 21, 2016

1969: ARPANET

56 kbps



1999: Dialup Internet of home users

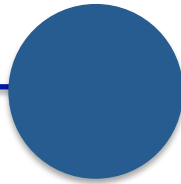
56 kbps



The screenshot shows the classic Yahoo! homepage layout. At the top, there are navigation icons for 'What's New', 'Check Email', 'Personalize', and 'Help'. The central 'YAHOO!' logo is prominent. Below it, there are links for 'Yahoo! Pager' (instant messaging), 'Yahoo! Pager now works with chat' (with a 'beep beep' icon), and 'Yahoo! Mail' (free email for life). A search bar with a 'Search' button and a link to 'advanced search' is present. Below the search bar, there are links for 'Yahoo! Auctions' and a long list of other services including Shopping, Yellow Pages, People Search, Maps, Travel Agent, Classifieds, Personals, Games, Chat, Email, Calendar, Pager, My Yahoo!, Today's News, Sports, Weather, TV, Stock Quotes, and more. The main content area is divided into several columns of category links: Arts & Humanities, Business & Economy, Computers & Internet, Education, Entertainment, Government, Health, News & Media, Recreation & Sports, Reference, Regional, Science, Social Science, and Society & Culture. On the right side, there are sections for 'In the News' (with links to NATO - Serbia war, Giant bacterium discovered, and Lakers release Rodman), 'Marketplace' (with Charity Auctions and Find a new job!), and 'Inside Yahoo!' (with links to Y! Movies, Y! Clubs, and Y! Visa). At the bottom, there are links for 'World Yahoos' (listing various international sites), 'Yahoo! Get Local' (listing local sites like LA, NYC, SE Bay, Chicago), and a 'Enter Zip Code' field.

1999: Internet at universities and businesses

100 Mbps



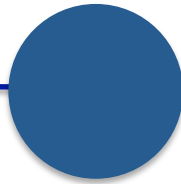
2016: Internet of home users

25 – 100 Mbps



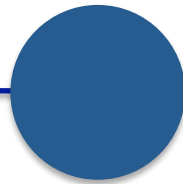
2016: Internet at universities and businesses

1 Gbps



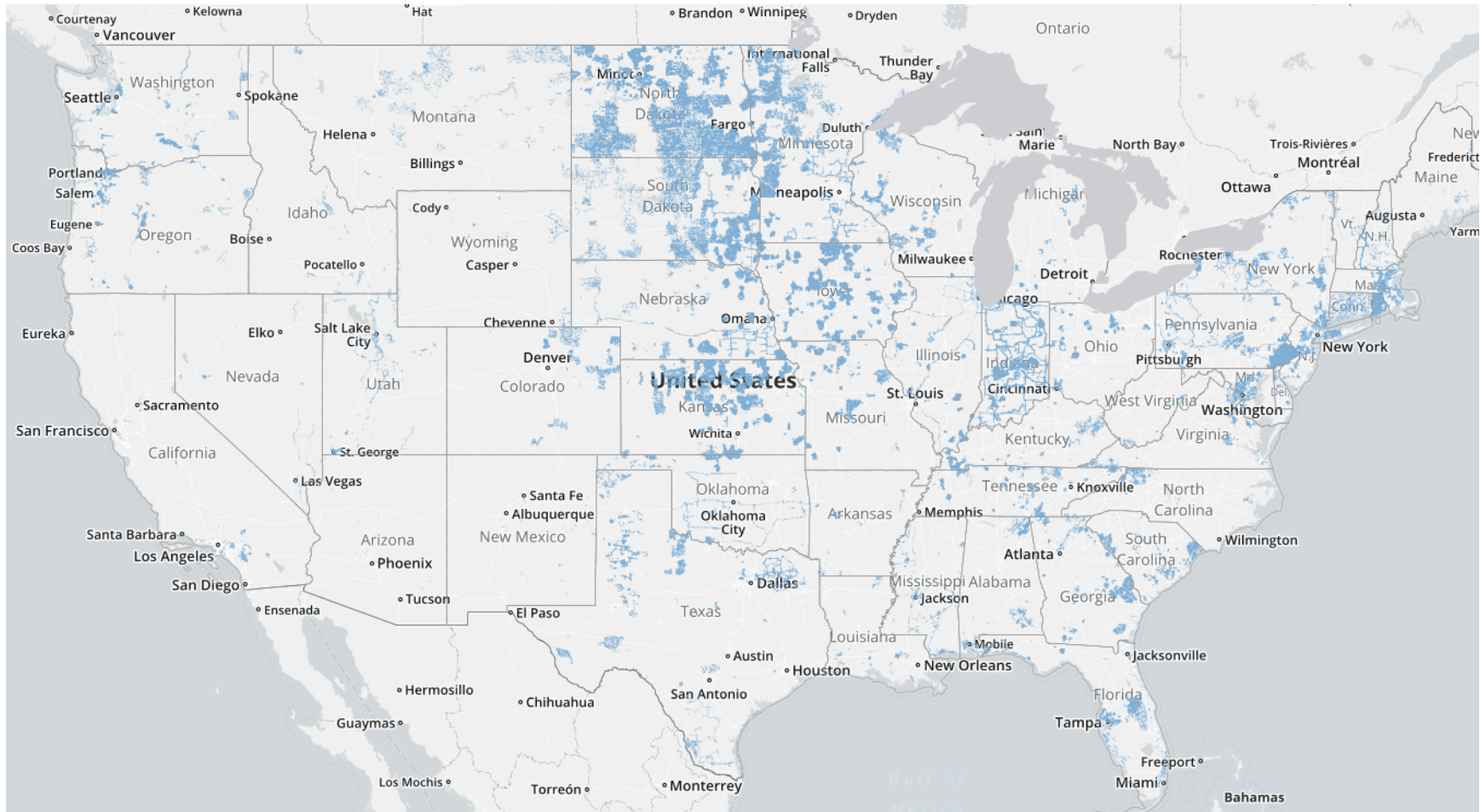
2021: Internet of home users

100 Mbps - 1 Gbps

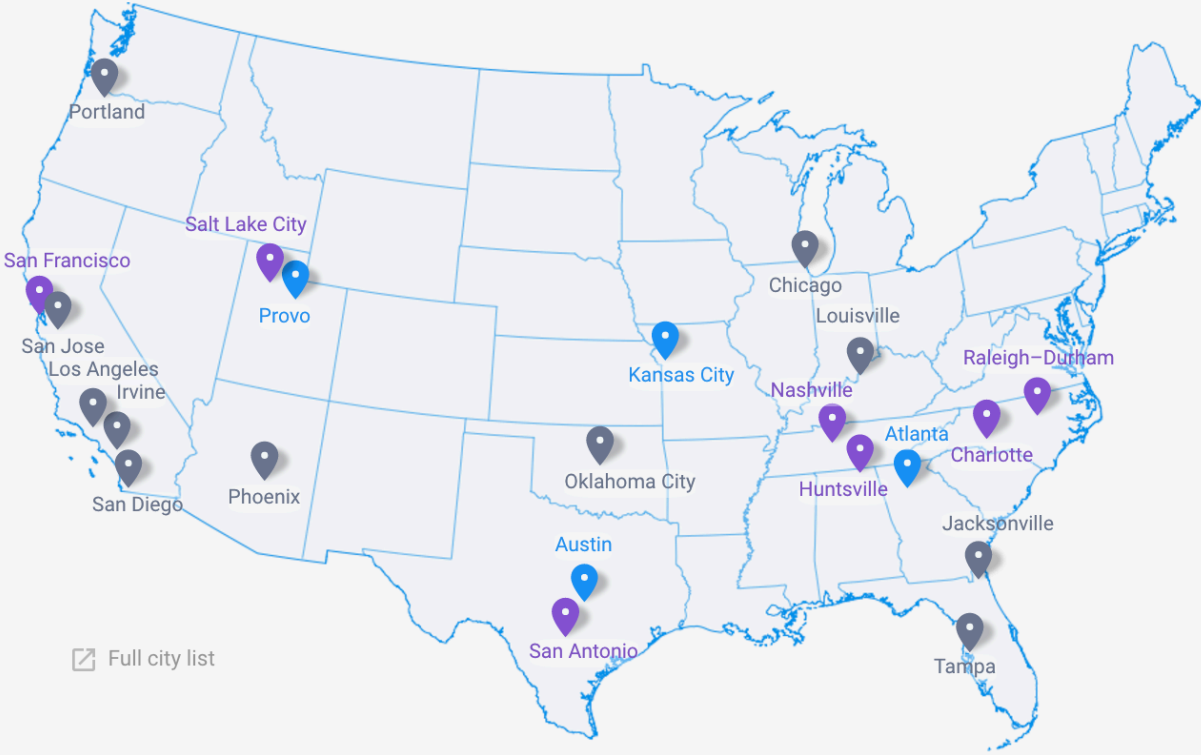


National Broadband Map

Fiber to the end user



want to bring Fiber to more people and places and are starting with these cities.

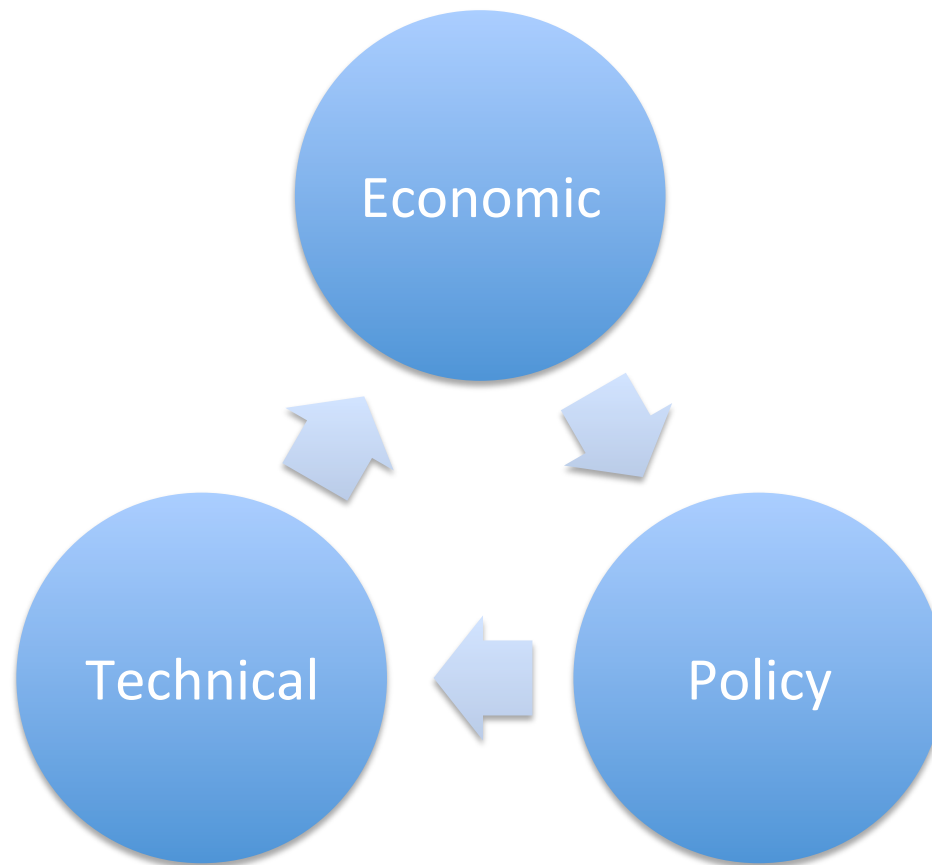


Full city list

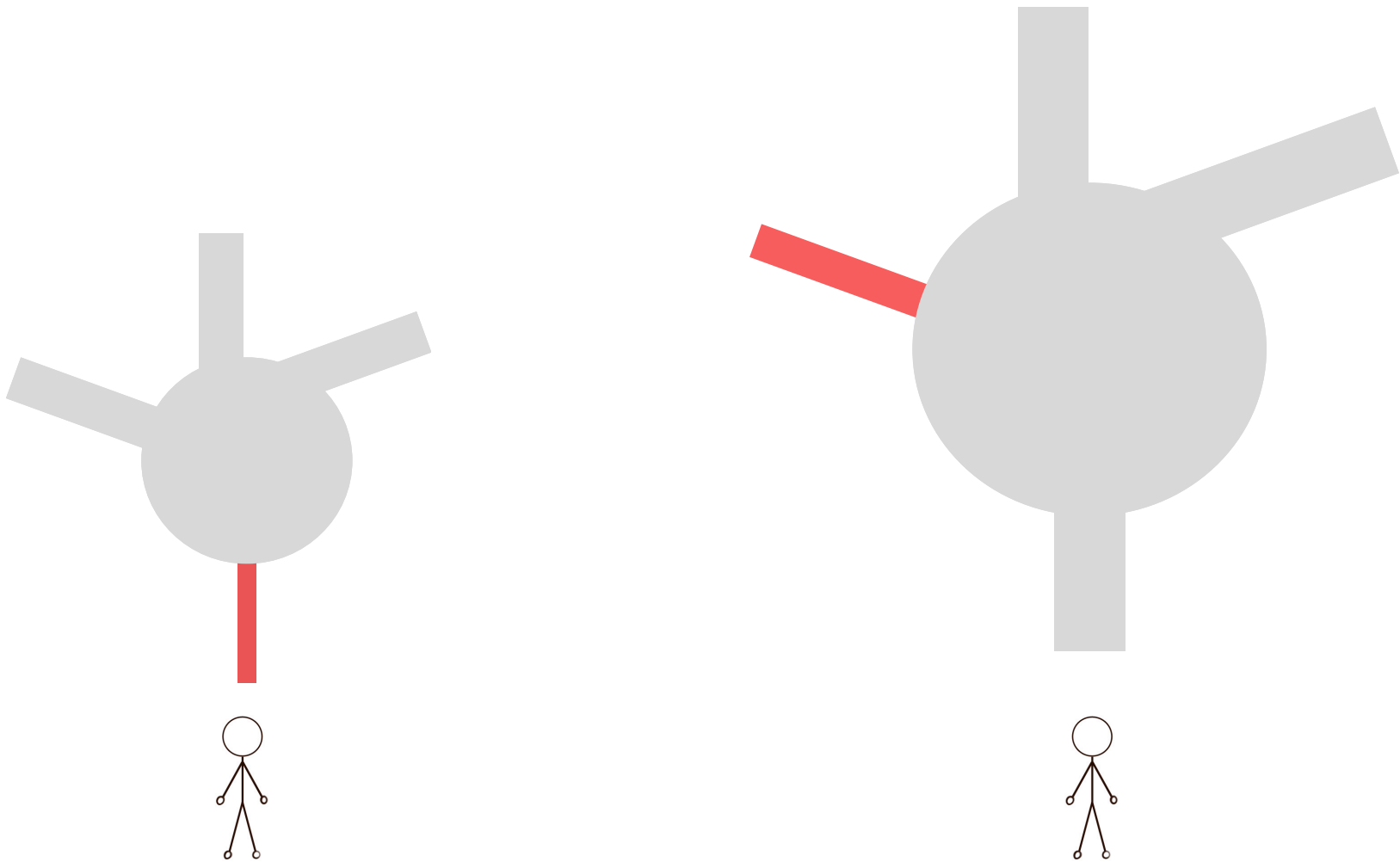
Current Fiber city Upcoming Fiber city Potential Fiber city

Implications of gigabit broadband

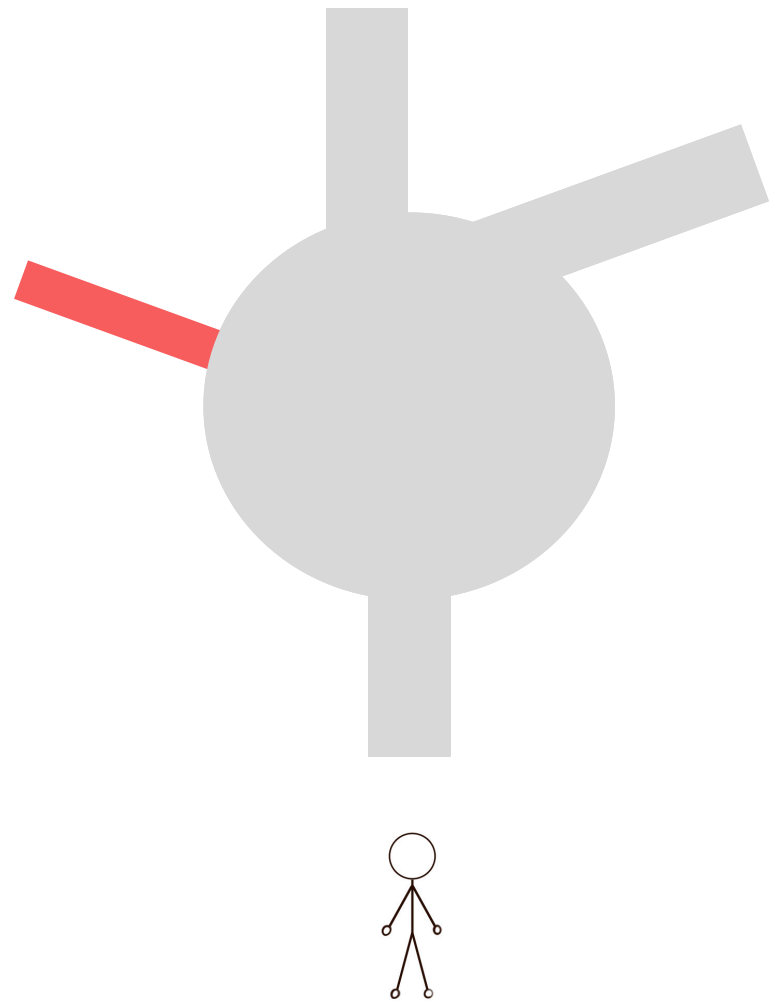
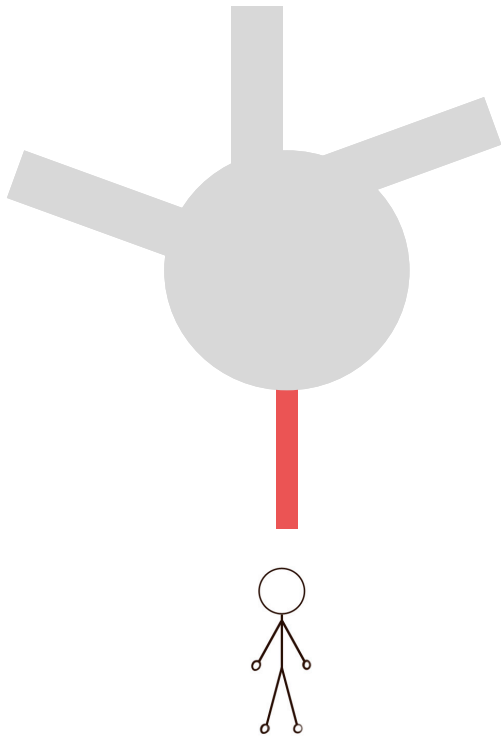
Same questions... different answers



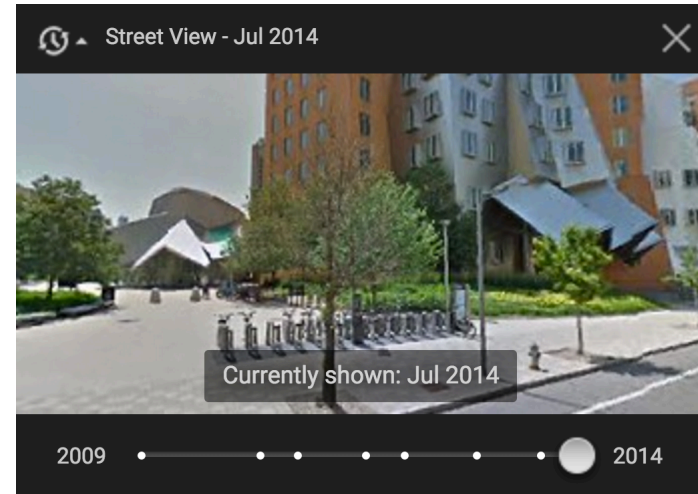
Moves performance bottlenecks...

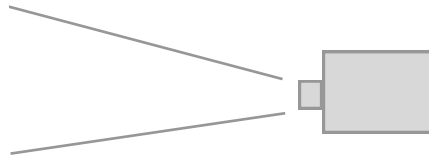


...which has implications for measurement and regulatory policies



Creates opportunities...





AI Fitness Trainer

Summary

- **Transformative increase to gigabit speeds on access links will create opportunities and challenges**
- Moves performance bottlenecks.... maybe into or out of your infrastructure
- Evolving user, edge provider and regulatory expectations and opportunities
- **What are the technical, policy, and economic implications of these changes for your business?**