

Building a Citywide, Next-Generation Network for San Francisco

**Public Safety and Neighborhood Services Committee
Thursday, March 11, 2021**

Accelerating America



Affordability

Congress should create a permanent broadband benefit program of \$20-\$50 per month for low-income recipients that will maximize people's ability to choose the services that work best for them.



Adoption

Increased support from the federal government for digital literacy education. In addition, local and municipal governments should encourage greater broadband use by making it easier for people to access the government services they need online.



Access

Congress should provide new support to build broadband in areas where the economics fail to support private deployment.

Robust Networks Benefit San Francisco



Helps underserved communities with access to high-speed broadband



Supplies a transformative high-speed wireless experience that will drive innovation and spawn new businesses



Provides the enabling infrastructure for traffic congestion improvements, pedestrian safety, autonomous vehicles



Helps speed the economic recovery for small business, by enabling business transformation and cost reduction



Facilitates enhanced remote healthcare (e.g. home health, mobile diagnostics)



Enables new life saving solutions for first responders and new, immersive learning experiences

Needs to Accelerate a Citywide Build



Critical: Update MLA

- Amend SFPUC and MTA Master License Agreements to conform to the FCC Order



Streamline Permit Processing

- Timely review and approval of permits and applications
- Cross-departmental working group to manage permit and construction progress
- Approval of a wood pole design standard
- Blanket permit approval to reduce # permits required (e.g. temp occupancy)



Waive Overly Burdensome Requirements and Support Cost Reducing Methods

- ADA curb ramp replacement only when Verizon work disrupts the curb (vs. when Verizon passes curb)
- Allow for 3 ft. T-Cap vs. full lane repaving for trenching
- Allow for narrow band trenching (16"-26" depth) in areas where feasible

Characteristics of Cities Supporting 5G Deployment at Scale

- Reasonable and cost-based license fee for small cells per FCC Regs
- Streamlined process for permit approvals (avg. 4 weeks; electronic)
- Cross-departmental working group established to resolve issues and track progress (regular meeting cadence)
- Street restoration standards that are not overly burdensome/costly
- Quarterly reviews with leadership from City and Verizon

Several big California cities have enacted reforms to speed citywide deployment



Long Beach



Los Angeles



Oakland



Sacramento



San Diego



San Jose

Small Cell Examples in San Francisco



4G/5G - Steel



4G Only - Steel



4G/5G - Wood



5G - Steel
(not deployed yet)

Narrowband Trench Method for Fiber Optics



Faster, lower impact method. 16"-24" depth trench cut, 8-9" offset from concrete gutter.



Cement slurry backfill is driveable same day



Reduces traffic disruption, no steel plates, lower cost restoration



Vacuum unit collects debris. 500-1,000 ft. avg. completion per day.



**WE
CREATE
THE
NETWORKS
THAT
MOVE
THE
WORLD
FORWARD**

Appendix

Verizon 5G Home

Now available in parts of San Francisco

- Typical download speed of 300 Mbps., upload speeds around 50 Mbps. Max download speeds up to 1 Gbps
- Self-install
- Router included
- No data caps
- Cancel anytime



New 5G Home gateway and receiver

Verizon Innovative Learning Schools

Comprehensive Model

Transforming schools by providing technology, connectivity, STEM curriculum, and teacher training to enable students to develop the skills, knowledge, and capabilities needed to thrive in the digital world. Our 264 Title I middle and high schools receive:



Technology for every student and teacher with up to 4 years of internet access



Device insurance, content filtering, and mobile device management software



Comprehensive professional development and a dedicated on-site instructional coach



Next-gen curriculum and eligibility for innovative learning labs and 5G access

Connect Model

In addition to our current model, we are launching a flexible option for schools in response to immediate needs due to the Covid-19 pandemic. This new model will provide an additional 200 Title I schools with:



Filtered mobile hotspots with up to 4 years of internet access for any student in need

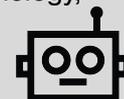


Flexible, asynchronous teacher training pathways and an onsite VILS liaison



Eligibility for Verizon Innovative Learning Labs and 5G access

Our mission is to equip students to **build the future** by leveraging emerging technology, social innovation, and design thinking to impact their communities.



Distant Learning Programs 2020



LAUSD & Verizon Connects 125K+ Students

- Unlimited 4GLTE Data Plan Discounted
- Tablet or Mobile Jetpack Device
- CIPA Compliant Solution



Expansion to Public K-12 Schools in California

- Partnership with LAUSD, CA Governor's Office & State Superintendent
- Additional 250K+ Students in the State of California
- Ability to Scale, Supports Content Filtering with Partners
- SFUSD is participating under this discount program



Verizon Distant Learning Programs

- Secure, Effective Distance Learning Tools for Uninterrupted Education
- Enable Collaboration, Stay Connected, Stay Secure
- Adapt to Ever-Changing Needs in Distant-Learning

