

Section 706, Title II and the Role of the States; The
Open Internet Promotes Critical Infrastructure
Safety, Reliability, and Just and Reasonable Rates

Catherine J.K. Sandoval
Commissioner

California Public Utilities Commission
State Chair, Federal State Joint Conference on
Advanced Services

November 19, 2014

Meeting of the Federal-State Joint Conference on Advanced Service at the
California Public Utilities Commission

State Regulatory Functions Relevant to Section 706

- States perform key regulatory functions:
 - Many states License carriers and register wireless carriers
 - Oversee compliance with 911/e911, public safety and other laws, rules, and standards.
 - Designate Eligible Telecom Carriers
 - Protect Consumers, take and investigate complaints
 - Conduct rulemakings that include hearings, fact-finding, and public participation
 - Section 706 Conference Survey Highlighted State role in consumer complaints and ongoing importance of that role as Technology Changes

NARUC Telecom Principles for the 21st Century

- NARUC's principles for Telecom Regulation in the 21st Century, unanimously adopted November 2013:
- Eight key areas for Telecom Regulation:
 - 1) Consumer protection;
 - 2) Network reliability and public safety;
 - 3) Competition;
 - 4) Interconnection;
 - 5) Universal Service;
 - 6) Regulatory diversity;
 - 7) Evidence-based decision making, and
 - 8) Broadband access, affordability, and adoption
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State Public Utilities Commissions Regulate a range of services that use the internet:

- Telecom Services
- Energy including Electricity, Natural Gas, and Renewables
- Water
- In some states:
 - Rail safety and Rail Crossings
 - Transportation including transportation network carriers
 - Grain silos
- Some states like California have funds that promote Internet access to communities, for Rural Health Clinics, Schools, and Community Based Organizations such as California's
 - Advanced Services Fund and Teleconnect Fund

Safe, Reliable Service at Just and Reasonable rates.

- Electric, Gas, Water, Telephone and other utilities have a statutory duty to provide **Safe, Reliable Service at Just and Reasonable rates.**
- Mission of State Public Utilities and Public Service Commissions is to ensure that utilities provide **Safe, Reliable Services at Just & Reasonable Rates**
- The Open Internet is critical to support the Safety, Reliability, and Just and Reasonable Rates mission



An Open Internet Achieves Energy and Water Efficiency and Sustainability

- The Internet is used by regulatory agencies, utilities, public safety providers and agencies, suppliers, academia, and the public to achieve mission critical goals such as:
 - Enhance Reliability and Safety of Critical Infrastructure
 - Achieve Energy Efficiency
 - Reduce Greenhouse Gas Reduction
 - Forestall Climate Change
 - Avoid Building Fossil Fuel Plants

Utilities are designated as Critical Infrastructure by Presidential Executive Order

- My written *Ex Parte* comments filed with the FCC in the Open Internet Proceeding highlight the importance of the Open Internet to a range of utility services from electricity to natural gas to water & communications
- ***Utilities are designated as Critical Infrastructure*** by President Obama's Executive Order
- The Internet is critical to Safety, Reliability and Just and Reasonable Rates
- Example: Critical role of the Internet in Water management and use, especially important in a drought

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The Open Internet Protects Public Safety and Enables Efficiencies

- The Internet enables demand response communications to better manage energy resources, help prevent power blackouts, forestall the need to build fossil-fueled power plants, and promote environmental sustainability.
- Fire fighters and public safety agencies use Internet connections to large Geographical Information Services (GIS) files with many data layers to track fire perimeters, wind and lightning, order helicopters and reinforcements, coordinate evacuations, identify hospitals with available beds as indicated by Internet-enabled "Smart Hospital Beds," and to respond to emergencies.

The Open Internet Promotes Safety and Efficiency

- The Internet has enabled new and efficient ways to improve gas pipeline leak detection
- Picarro was born of the Open Internet and has revolutionized gas pipeline leak detection
- Picarro was invented in Santa Clara, California
- Originally designed for biomethane industry
- Methane emission readings connected to computer
- Inventor realized his Internet-enabled device detected gas pipeline leaks
- Mapped it through Google Earth to create usable maps
- Conducted pilot with PG&E
- The CPUC in PG&E's General Rate Case adopted in July 2014 authorized use of Picarro technology for Gas Pipeline Leak Detection



Open Internet Dramatically Improved Gas Pipeline Leak in Detection

- Picarro information is very readable
- Uses tablet devices held by workers in the field
- Puts readings into leak classifications, ranging from the most serious Grade 1 (requiring immediate attention), to Grade 2 and Grade 3 to prioritize work
- Picarro technology is 1,000 times more sensitive than traditional leak detection
- This program improved public safety, increased efficiency, reduced costs
- Open Internet led to win-win for public safety

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The Open Internet Promotes Sustainability

- Reducing gas leaks, a source of methane emissions, reduces Greenhouse Gases
- Reducing gas leaks helps forestall climate change
- More effective use of resources
- Protects people and the environment



The Open Internet Promotes Safety

- August 2014 Napa earthquake occurred
- Earthquake registered 6.0 on Richter Scale
- Quickly deployed Picarro technology to identify leaks.
- Did leak survey in an afternoon that could not have been done in months or maybe years
- The Open Internet enhances public safety
- The Open Internet is Critical to State and Federal Regulatory Roles to Protect Public Safety

Open Internet Is Critical to Universal Service Programs

- **Lifeline**
 - Offers Access to Data and Voice Communications
 - Program Administration relies on the Internet to verify enrollment eligibility
 - Enables competition and consumer choice
- **Connect America Fund**
 - Rural Broadband Experiments: Carriers must provide data as well as voice
- **Speech Generating Devices, California program**
 - Enables people with Parkinson's and a variety of diseases and disorders that affect the ability to speak to use speech generating devices including specially equipped tablets to communicate
 - Transformative for those people, their families, health care providers, and for society

Internet Users are Speakers/Content Creators

- The Hoopa Tribe in California uses the Internet to teach their youth to create Video Games as a means of learning the Hoopa language and telling the Hoopa story
- A person using a speech Generating Device is a content creator
- *Content creators/edge providers are speakers who use the Internet to transmit speech.*



Content Creators and Edge providers are Speakers

- Who are Content creators and edge providers?
- Content creators and edge providers include :
 - Youth communicating in their native language about their history such as the Hoopa Tribe's youth through their project to create video games in the Hoopa language
 - A disabled person using a Speech Generating Device
 - A utility designated as critical infrastructure
 - A regulator
 - The public
- Public and constitutional values of speech
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Section 706 of the Telecommunications Act of 1996

- Section 706 of the Telecommunications Act of 1996, Codified as 47 USC § 1302 provides:
- The Commission and each State commission with regulatory jurisdiction over telecommunications services shall encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans (including, in particular, elementary and secondary schools and classrooms) by utilizing, in a manner consistent with the public interest, convenience, and necessity, price cap regulation, regulatory forbearance, measures that promote competition in the local telecommunications market, or other regulating methods that remove barriers to infrastructure investment

Recommendation

- Adopt Regulatory rules that recognize the role of critical infrastructure, and the statutory duty to provide safe, reliable service at just and reasonable rates
- I testified in my individual capacity as a CPUC Commissioner, and a constitutional officer of the State of California, at a public forum on the Open Internet on September 24, 2014 convened by Congresswoman Matsui, with FCC Commissioners Clyburn and Rosenworcel also presiding.
- As stated in that testimony, I recommend that the FCC Adopt rules to protect and promote the Open Internet consistent with both Section 706 of the Telecommunications Act and Title II of the Communications Act with forbearance and a light regulatory touch.