

POLICY & REGULATION

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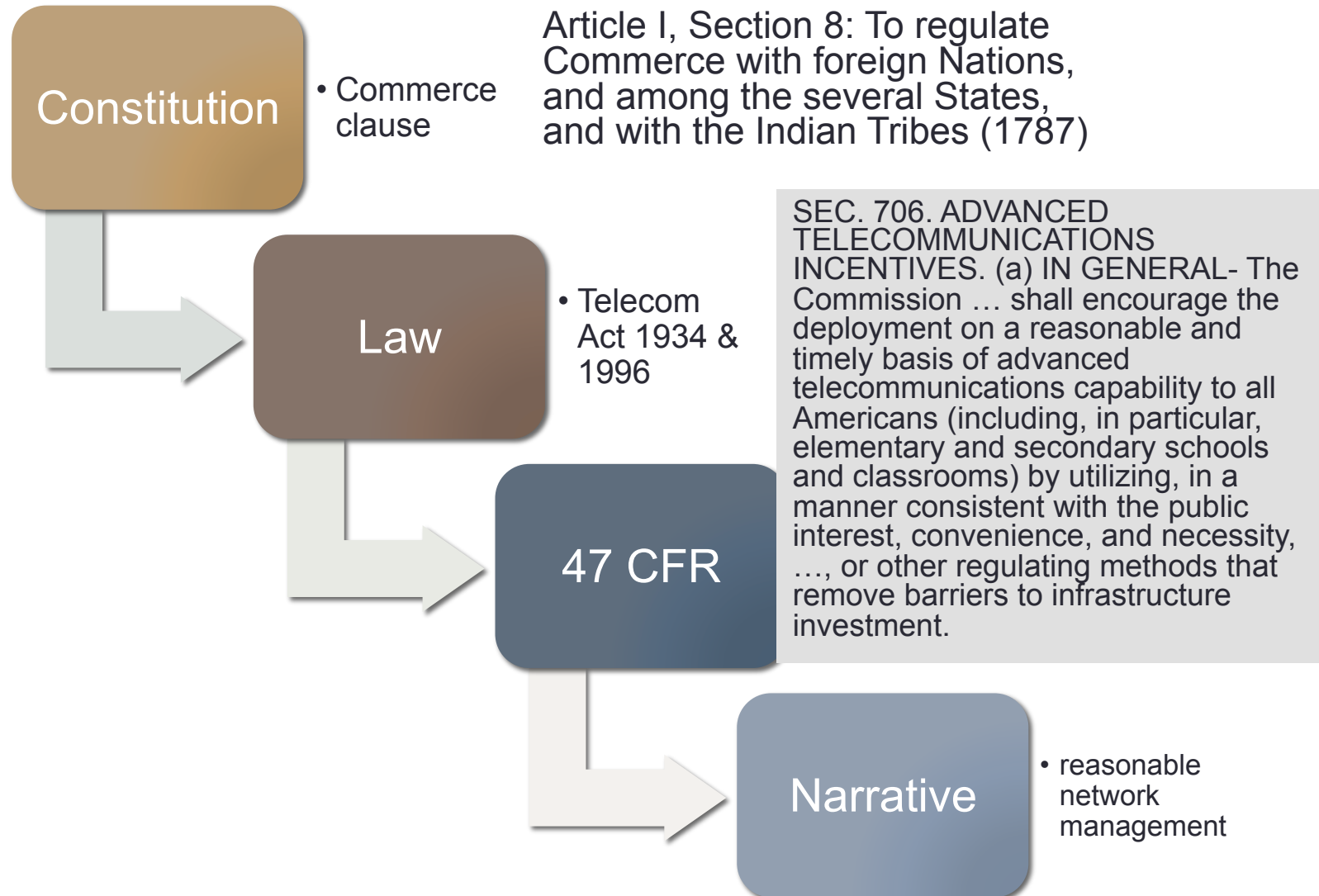
Key objectives

- What is law and regulation?
- What are common carriers and utilities?
- What is the difference between laws vs. regulation
- What laws govern US communication?
- Network neutrality – motivation and questions
- 2015 Open Internet rules

The kinds of law

- Constitutional law (1787)
 - relationship between
 - president and Congress
 - federal government and states
 - bill of rights (1791) + 17 amendments
 - short compared to other constitutions
- Criminal law
 - “Homicide means conduct which causes the death of a person or an unborn child with which a female has been pregnant for more than twenty-four weeks under circumstances constituting murder, manslaughter in the first degree, manslaughter in the second degree, criminally negligent homicide, abortion in the first degree or self-abortion in the first degree.” (NYS S125.00)
 - "Person," when referring to the victim of a homicide, means a human being who has been born and is alive.
- Civil law
 - contract, uniform commercial code, labor laws, ...
- Administrative law
 - e.g., how can regulations be made and enforced

The US hierarchy of laws



Laws & regulations

	Laws	Regulations
Made by	Congress, state legislatures, city council, ...	some Federal regulatory bodies (DOT, FCC, NRC, DoAg) = expert agencies
Based on	Constitution	Federal law(s)
Vetoed by	President, governor	Congress (Congressional Review Act), defund agency
Can be overridden by	Federal court, Supreme Court	Federal (circuit) courts, Supreme Court
Published in	Federal Register	FR, CFR
Violations result in ...	Fine, jail	Fine, jail, loss of license, ...

FAA example

Title 14 - Aeronautics and Space

Volume: 2

Date: 2004-01-01

Original Date: 2004-01-01

Title: Section 121.571 - Briefing passengers before takeoff.

Context: Title 14 - Aeronautics and Space. CHAPTER I - FEDERAL AVIATION ADMINISTRATION, DEPARTMENT OF TRANSPORTATION (CONTINUED). SUBCHAPTER G - AIR CARRIERS AND OPERATORS FOR COMPENSATION OR HIRE: CERTIFICATION AND OPERATIONS. PART 121 - OPERATING REQUIREMENTS: DOMESTIC, FLAG, AND SUPPLEMENTAL OPERATIONS. Subpart T - Flight Operations.

§ 121.571 Briefing passengers before takeoff.

(a) Each certificate holder operating a passenger-carrying airplane shall insure that all passengers are orally briefed by the appropriate crewmember as follows:

(1) Before each takeoff, on each of the following:

(i) *Smoking*. Each passenger shall be briefed on when, where, and under what conditions smoking is prohibited including, but not limited to, any applicable requirements of part 252 of this title). This briefing shall include a statement that the Federal Aviation Regulations require passenger compliance with the lighted passenger information signs, posted placards, areas designated for safety purposes as no smoking areas, and crewmember instructions with regard to these items. The briefing shall also include a statement that Federal law prohibits tampering with, disabling, or destroying any smoke detector in an airplane lavatory; smoking in lavatories; and, when applicable, smoking in passenger compartments.

(ii) The location of emergency exits.

Communications Act

47 U.S. Code Chapter 5 - WIRE OR RADIO COMMUNICATION

Current through Pub. L. [113-185](#). (See [Public Laws for the current Congress](#).)

US Code

Notes

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- [SUBCHAPTER I—GENERAL PROVISIONS \(§§ 151–162\)](#)
- [SUBCHAPTER II—COMMON CARRIERS \(§§ 201–276\)](#)
- [SUBCHAPTER III—SPECIAL PROVISIONS RELATING TO RADIO \(§§ 301–399b\)](#)
- [SUBCHAPTER IV—PROCEDURAL AND ADMINISTRATIVE PROVISIONS \(§§ 401–416\)](#)
- [SUBCHAPTER V—PENAL PROVISIONS; FORFEITURES \(§§ 501–510\)](#)
- [SUBCHAPTER V-A—CABLE COMMUNICATIONS \(§§ 521–573\)](#)
- [SUBCHAPTER VI—MISCELLANEOUS PROVISIONS \(§§ 601–621\)](#)

Code of Federal Regulations

- Title 3: The President
- Title 7: Agriculture
- Title 33: Navigation and Navigable Waters
- Title 39: Postal Service
- Title 47: Telecommunications
- Title 49: Transportation
- Title 50: Wildlife and Fisheries

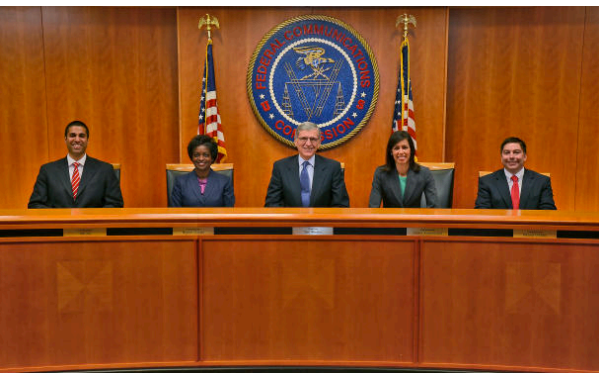


<http://www.ecfr.gov/>

47 U.S. Code § 151 - Purposes of chapter; Federal Communications Commission created

- For the purpose of regulating interstate and foreign commerce in communication by wire and radio so as to make available, so far as possible, to all the people of the United States, without discrimination on the basis of race, color, religion, national origin, or sex, a rapid, efficient, Nation-wide, and world-wide wire and radio communication service with adequate facilities at reasonable charges, for the purpose of the national defense, for the purpose of promoting safety of life and property through the use of wire and radio communications, and for the purpose of securing a more effective execution of this policy by centralizing authority heretofore granted by law to several agencies and by granting additional authority with respect to interstate and foreign commerce in wire and radio communication, there is created a commission to be known as the “Federal Communications Commission”, which shall be constituted as hereinafter provided, and which shall execute and enforce the provisions of this chapter.

FCC



Chairman (D) –
Tom Wheeler



President nominates
Senate confirms

4
Commissioners
(2 D, 2 R)

Consumer and
Governmental Affairs

Enforcement

International

Media

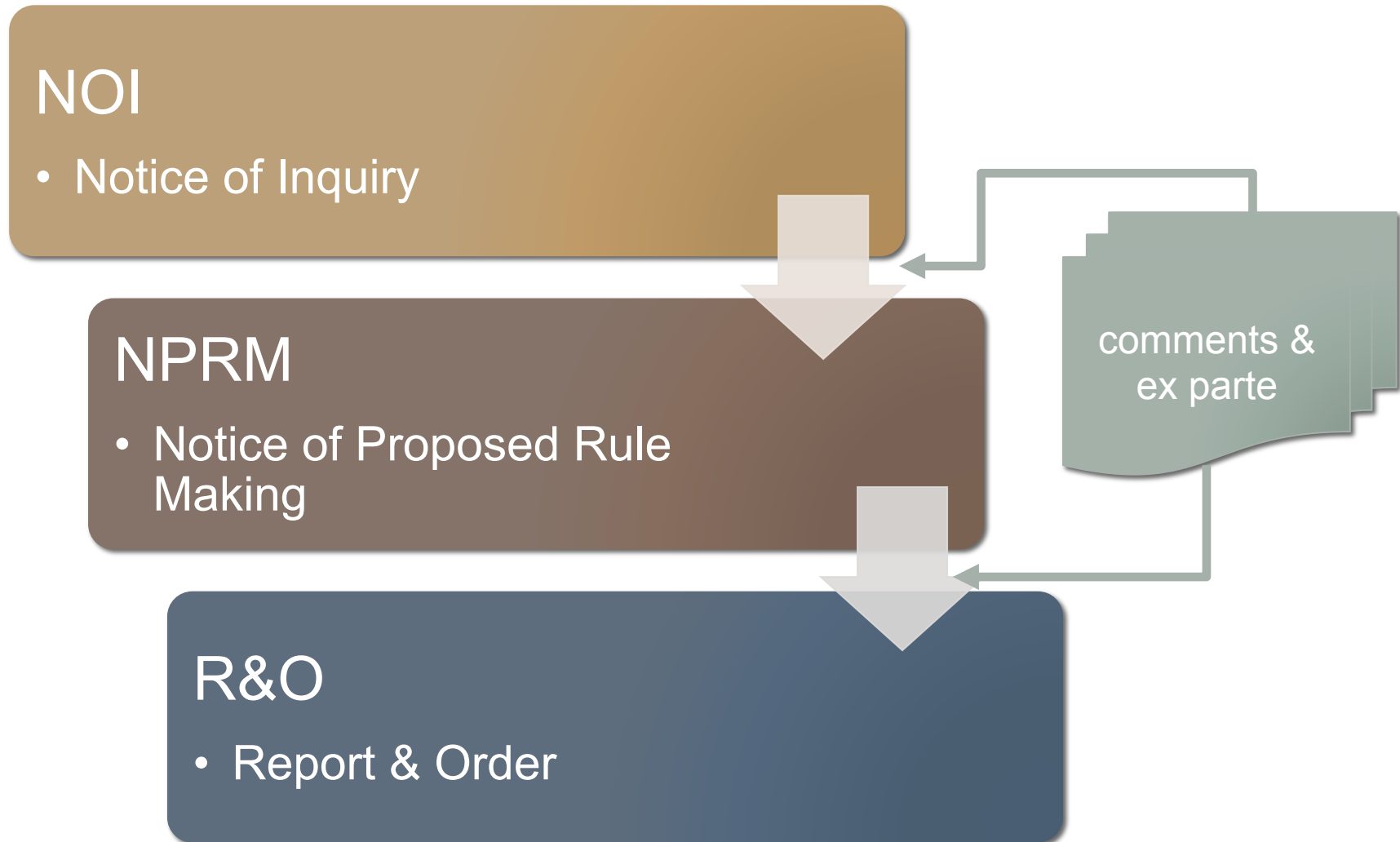
Public Safety & Homeland
Security

Wireless
Telecommunications

Wireline Competition

- Independent federal agency
- About 1,700 employees

Process (APA)



Your phone/Internet bill

Taxes, Governmental Surcharges and Fees

Federal Excise Tax	.21
NJ State Sales Tax	3.75
911 System/Emerg Resp Fee	.90

Total Taxes, Governmental Surcharges and Fees

\$4.86

911 fee (by county)

Verizon Surcharges and Other Charges & Credits

Federal Universal Service Fee	2.64
VLD Carrier Cost Recovery Charge	1.25
Federal Subscriber Line and Access Recovery Charge	7.03
VLD Long Distance Administrative Charge	.74
Regulatory Recovery Fee – Federal	.08
Video Franchise Fee	.77
CATV Universal Access Fund	.11

Total Verizon Surcharges and Other Charges & Credits

\$12.62

subsidy (high-cost, low-income, e-Rate)

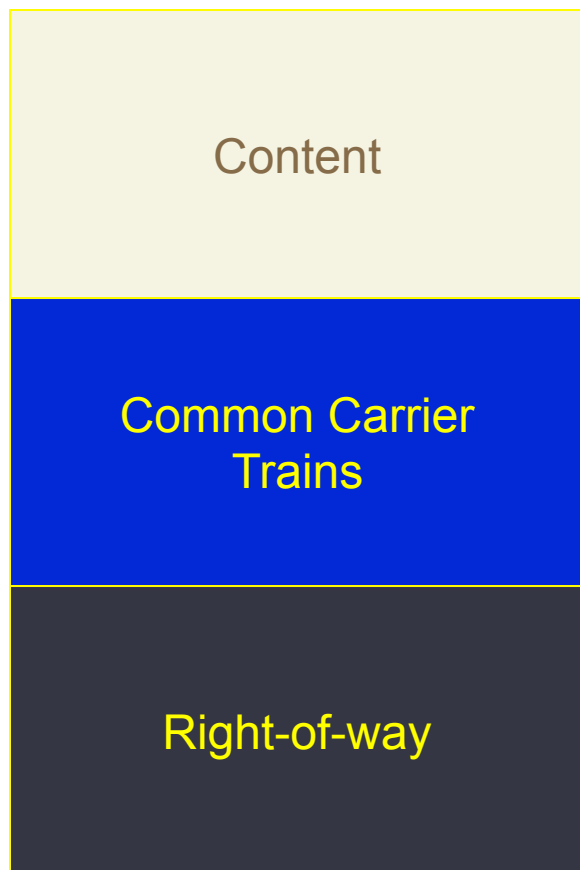
Verizon long distance

funds the FCC

state video franchise (NJ)

Before the Internet, before the phone...

Common Carrier



Coal



Common carrier & utilities

Common carrier

- duty to serve
- without unreasonable discrimination
- just and reasonable pricing
- with adequate care

Utility

- franchise (area)
 - may be exclusive or not
- price regulation
- eminent domain
 - dig up street; utility poles
- duty to serve
- example: gas, water, electricity, phone

Title II overview

Para	Title	Summary	Relevance
201	Service & charges	“reasonable request”, “just and reasonable”	umbrella
202	Discriminations & preferences	“unjust or unreasonable discrimination in charges, practices, classifications, regulations, facilities, or services”	OI?
203	Schedule of charges	tariffs	NECA
204	Hearings on new charges; suspension pending hearing; refunds; duration of hearing; appeal of order concluding hearing	tariff hearings	rare
205	Commission authorized to prescribe just and reasonable charges; penalties for violations	tariff setting	rare

Title II overview

Para	Title	Summary	Relevance
206	Carriers' liability for damages	"shall do, or cause or permit to be done, any act, matter, or thing in this chapter prohibited"	uncommon
207	Recovery of damages	complain OR sue	protects carriers
208	Complaints to Commission; investigations; duration of investigation; appeal of order concluding investigation	"Any person, any body politic, or municipal organization, or State commission, complaining of anything done"	consumer complaints
209	Orders for payment of money	"Commission shall make an order directing the carrier to pay to the complainant"	consumer complaints
210	Franks and passes; free service to governmental agencies in connection with national defense	"giving franks to, or exchanging franks with each other for the use of, their officers"	employee benefits

Open Internet/network neutrality

- Conceptualized by Tim Wu (Columbia U.) and others
 - general notion of non-discrimination (“neutrality”)
 - details differ
- Economic arguments
 - foreclosure of new entrants
 - vertical integration
- Non-economic arguments
 - participation, personal expression, ...
- Counter arguments
 - free market interference
 - disincentivizes investment (uncertainty, implicit or explicit price regulation)
 - lack of demonstrated harm
 - anti-trust law as alternative
 - 1st amendment arguments (ISP as speaker)

Common questions

- Different charges for different types of content?
- Block competing services (e.g., video or voice)?
- Provide quality of service?
- Block spam or denial-of-service traffic?
- Prevent tethering except for a fee?
- Usage-based charging (\$/GB)?
- Charge content providers?

Some high-profile cases

- Madison River (2005)
 - DSL provider blocked SIP ports
 - fined \$15,000 by FCC
 - based on Section 201 “just and reasonable”
- Comcast (late 2007)
 - insert TCP RST into BitTorrent traffic
 - later overturned on appeal in DC Circuit Court
- RCN (2009): P2P
- Various mobile operators
- Comcast vs. Level 3 (2010, in dispute) - interconnection
- Comcast, Verizon, AT&T, ... vs. Netflix

Background definitions

- **Telecommunications** = the transmission, between and among points specified by the user, of information of the user's choosing, without change in the form or content of the information as sent and received. (47 U.S.C. § 153(43))
- **Telecommunications service** = “the offering of telecommunications for a fee directly to the public, or to such classes of users as to be effectively available directly to the public, regardless of the facilities used.” 47 USC § 153(46) (1999)
- Information service = users of telecommunication services
- cf. Basic vs. enhanced service (CI)
 - **Basic telecommunications**: “the offering of a pure transmission capability over a communications path that is virtually transparent in terms of its interaction with customer supplied information.”
 - **Enhanced**: everything else

OI rules: definition

- ***Broadband Internet access service***. A mass-market retail service by wire or radio that provides the capability to transmit data to and receive data from all or substantially all Internet endpoints, including any capabilities that are incidental to and enable the operation of the communications service, but excluding dial-up Internet access service. This term also encompasses any service that the Commission finds to be providing a functional equivalent of the service described in the previous sentence, or that is used to evade the protections set forth in this Part.
- ***Public Switched Network***. The network that includes any common carrier switched network, whether by wire or radio, including local exchange carriers, interexchange carriers, and mobile service providers, that uses the North American Numbering Plan, or public IP addresses, in connection with the provision of switched services.

OI rules: no blocking, no throttling

- A person engaged in the provision of broadband Internet access service, ..., shall not block lawful content, applications, services, or non-harmful devices, subject to reasonable network management.
- A person engaged in the provision of broadband Internet access service, ..., shall not impair or degrade lawful Internet traffic on the basis of Internet content, application, or service, or use of a non-harmful device, subject to reasonable network management.

Of rules: no paid prioritization

- a. A person engaged in the provision of broadband Internet access service, ..., shall not engage in **paid prioritization**.
- b. “Paid prioritization” refers to the management of a broadband provider’s network to directly or indirectly favor some traffic over other traffic, including through use of techniques such as traffic shaping, prioritization, resource reservation, or other forms of preferential traffic management, either (a) in exchange for consideration (monetary or otherwise) from a *third party*, or (b) to benefit an affiliated entity.
- c. The Commission may waive the ban on paid prioritization only if the petitioner demonstrates that the practice would provide some significant public interest benefit and would not harm the open nature of the Internet.

OI: general conduct rule

- Any person engaged in the provision of broadband Internet access service, ..., shall not unreasonably interfere with or unreasonably disadvantage (i) end users' ability to select, access, and use broadband Internet access service or the lawful Internet content, applications, services, or devices of their choice, or (ii) edge providers' ability to make lawful content, applications, services, or devices available to end users. Reasonable network management shall not be considered a violation of this rule.