

## Panelists



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**Prof. Dr. Bernd Holznagel, LL.M.**

Institute for Information,  
Telecommunications and Media Law  
Westfälische Wilhelms-Universität, Münster

email: holznagel@wwu.de



**Prof. Dr. Dres. h.c. Arnold Picot**

Research Center for Information, Organization  
and Management  
Ludwig-Maximilians-Universität, Munich

email: picot@lmu.de



**Prof. Emeritus Manfred K. Wolfram, Ph.D.**

University of Cincinnati,  
MSC/MISU/LMU, Munich

email: wolframk@ucmail.uc.edu

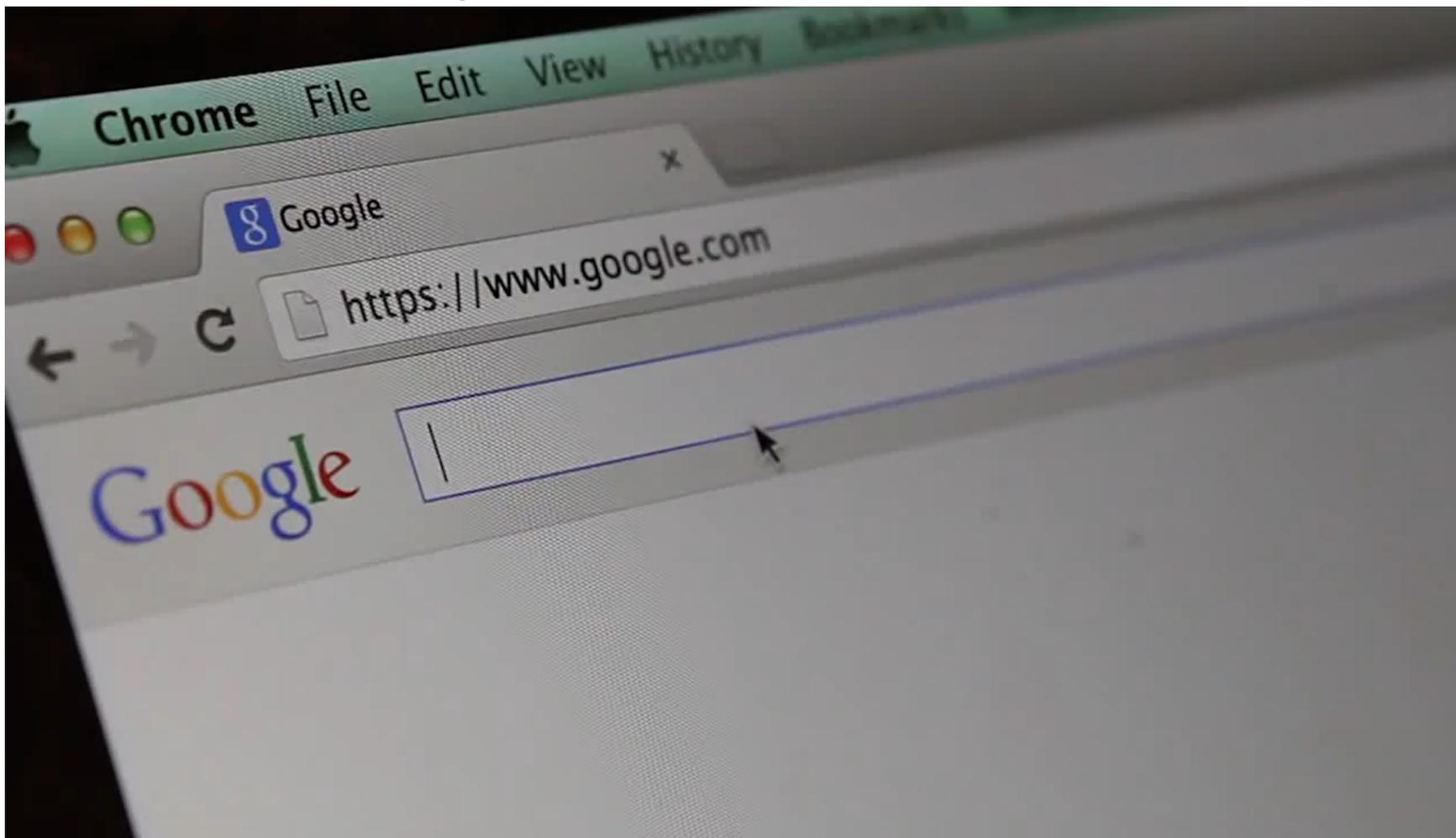


**Prof. Dr. Rolf T. Wigand**

Departments of Information Science &  
Business Information Systems  
University of Arkansas at Little Rock

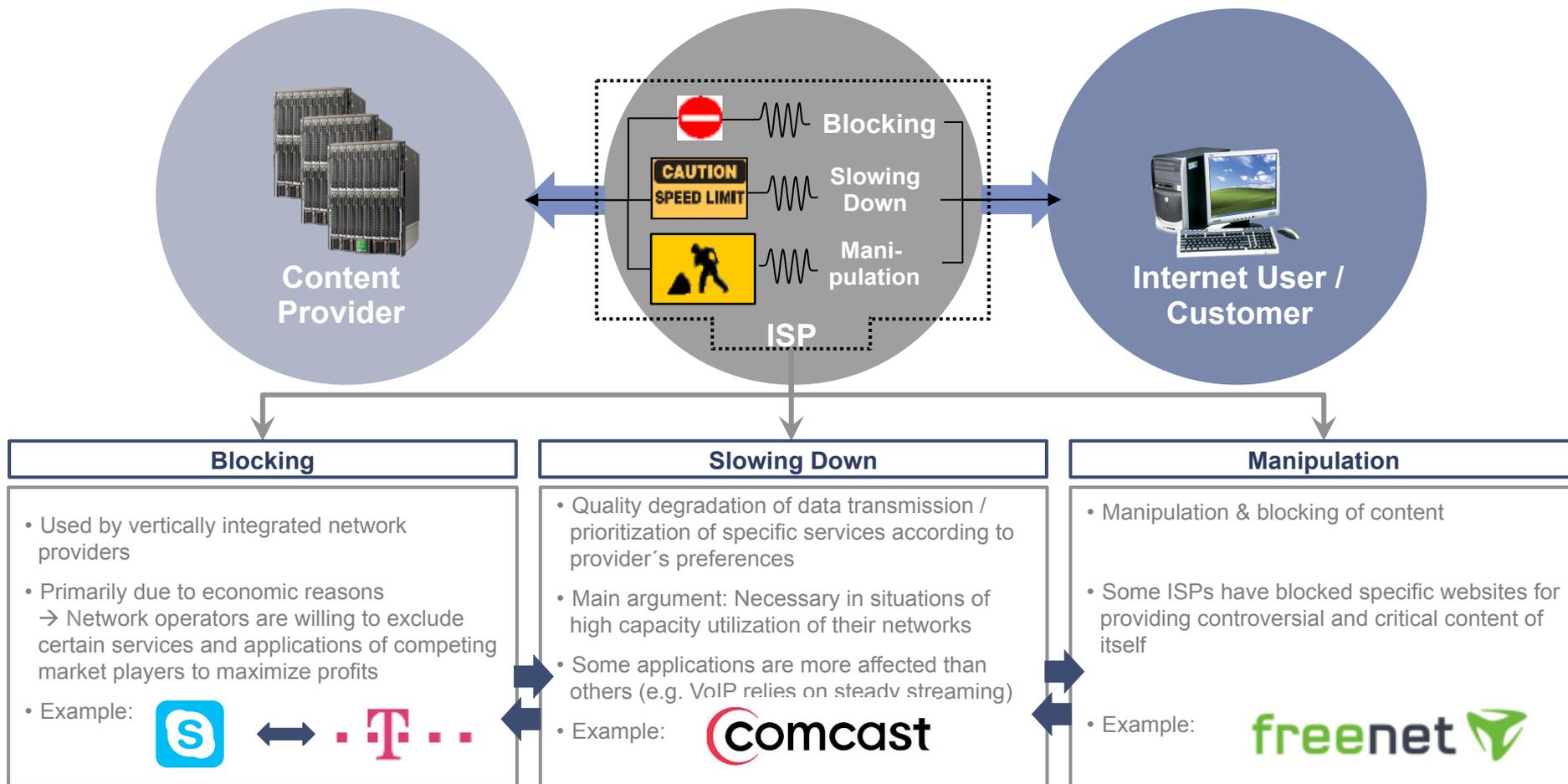
email: rtwigand@ualr.edu

## I. Definition of Net Neutrality



## II. What are the issues?

### 1. Main Cases

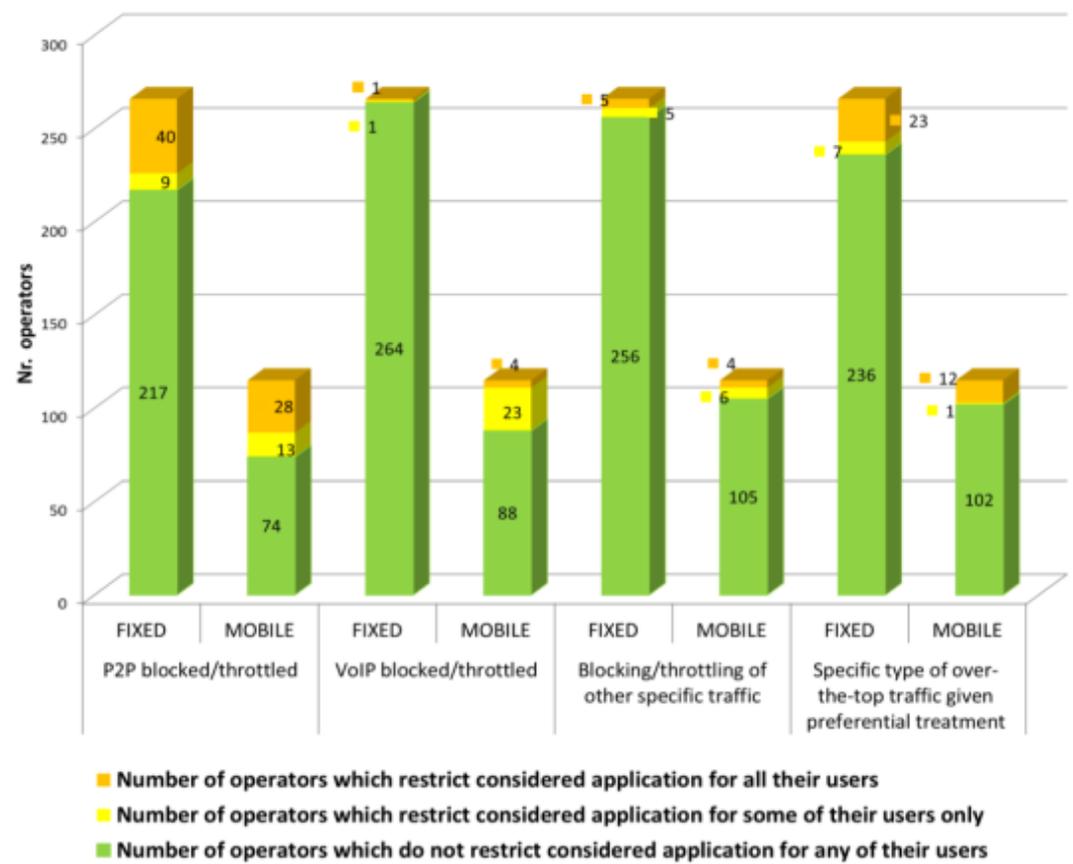


Source: Holznagel/Picot/Grove (2010), p. 4; Felten (2006).

## II. What are the issues?

### 2. Empirical Data

#### a) Number of Operators Applying some Level of Restriction in Europe (2012)



#### Notes

- Data intense P2P networks are especially subject to interventions
- The VoIP traffic is affected nearly exclusive in the area of mobile communication

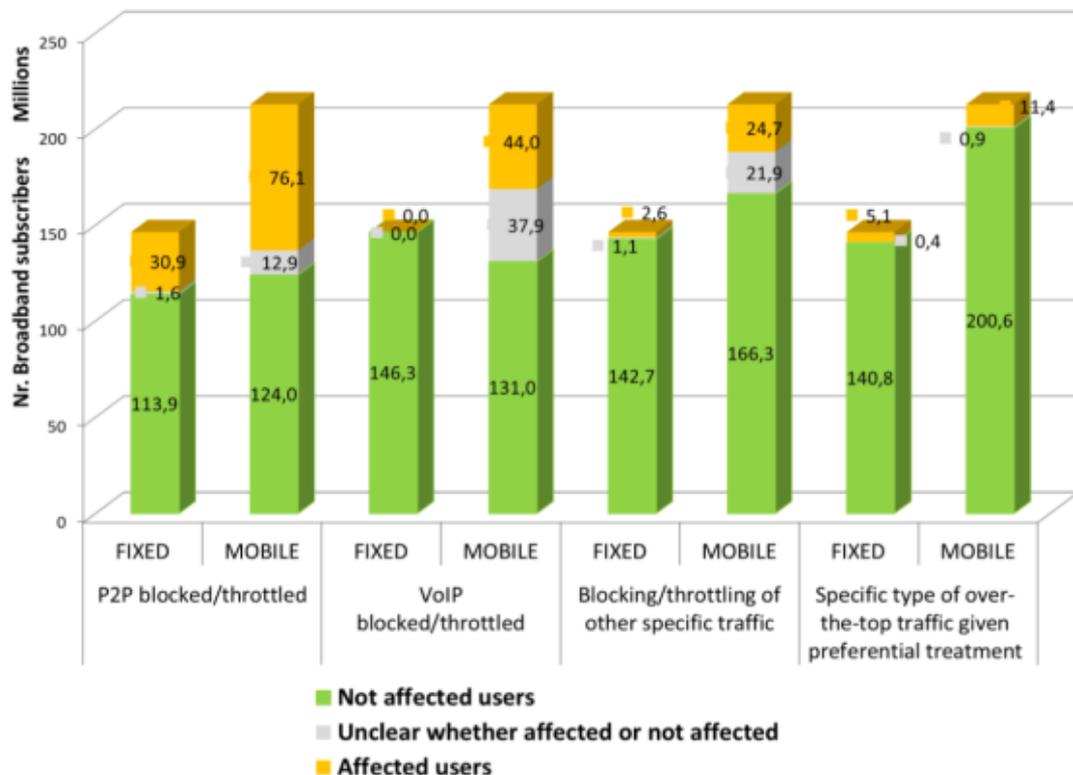
**N = 381**  
 266 fixed network operators  
 115 mobile network operators

Source: BEREC (2012), p. 15.

## II. What are the issues?

### 2. Empirical Data

#### a) Number of Internet Access Subscribers Affected (2012)

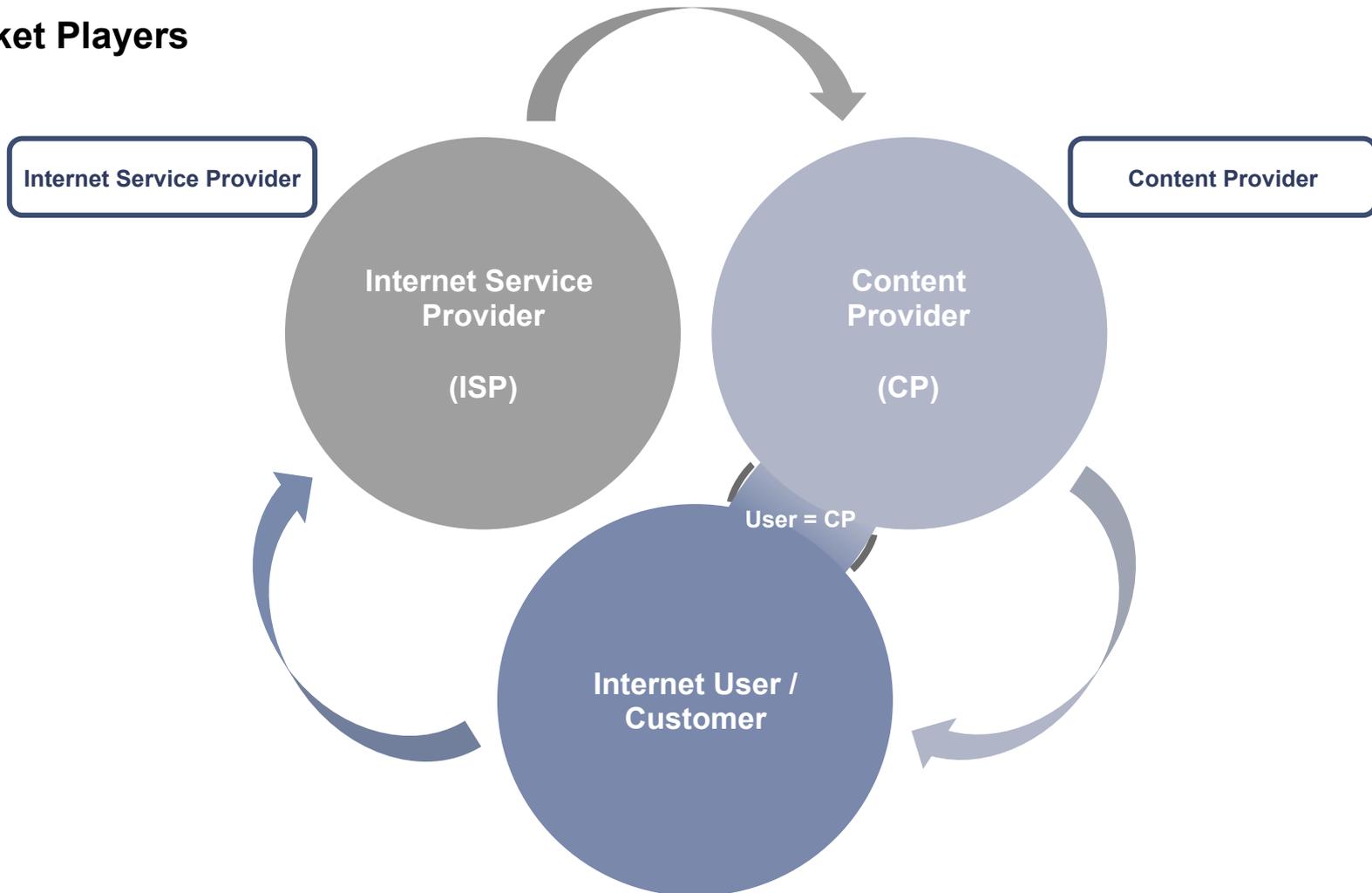


- Notes**
- In the fixed market, while at least 78% are not affected by those restrictions, at least 21 % of broadband users are affected by P2P related restrictions
  - In the mobile market, while at least 58% are not affected by those restrictions, at least 36 % of broadband users are affected by P2P related restrictions
  - In the mobile market while at least 61 % are not affected by those restrictions, at least 21 % of broadband users are affected by VoIP related restrictions.

Source: BEREC (2012), p. 21.

### III. Who are the contestants?

#### 1. Market Players



### III. Who are the contestants?

#### 2. Content Providers

- Internet Content Providers (ICPs) are a website or an organization that handles the distribution of online content such as blogs, videos, music or files.
- Many observers believe net neutrality to be primarily important for the preservation of current Internet freedoms: a lack of net neutrality would allow Internet service providers, such as Comcast, to extract payment from **content providers** like Netflix, and these charges would ultimately be passed on to consumers.
- SaveTheInternet.com accuses cable and telecommunications companies of wanting the role of gatekeepers, being able to control which websites load quickly, load slowly, or don't load at all. According to SaveTheInternet.com these companies want to charge **content providers** who require guaranteed speedy data delivery to create advantages for their own search engines, Internet phone services, and streaming video services – and slowing access or blocking access to those of competitors.
- Vinton Cerf, a co-inventor of the Internet Protocol and current vice president of Google argues that the Internet was designed without any authorities controlling access to new content or new services. He concludes that the principles responsible for making the Internet such a success would be fundamentally undermined were broadband carriers given the ability to affect what people see and do online
- Organizations and companies that support net neutrality include the American Civil Liberties Union, the Electronic Frontier Foundation, Greenpeace, Tumblr, Kickstarter, Vimeo, Wikia, Mozilla Foundation, and others.

### III. Who are the contestants?

#### 2. Content Providers

#### Which Content Owners Have Direct Interconnect Deals With ISPs?

	<u>AT&amp;T</u>	<u>Comcast</u>	<u>Verizon</u>	<u>CenturyLink</u>	<u>Sprint</u>	<u>Level 3</u>
Google	X	X	X	X	X	X
Amazon	X	X		X		X
Facebook	X	X	X		X	X
Akamai	X	X	X	X	X	X
Microsoft	X	X	X	X		X
Netflix		X	X	X		X
Limelight	X	X	X	X	X	X
Pandora		X				X
Ebay	X		X	X	X	X
Apple	X		X			X

Source: <http://blog.streamingmedia.com/2014/05/chart-shows-which-content-owners-have-direct-interconnect-deals-with-isps.html>, last accessed on April 11, 2015.

## III. Who are the contestants?

### 3. Consumers

- Over 3 million people commented on the FCC's invitation to share sentiments on net neutrality.
- What is at stake for consumers in the new proposal by the Federal Communications Commission dealing with whether all content should be treated equally over Internet connections. Under the FCC's new rules, Internet service providers such as Verizon, Time Warner Cable and AT&T could soon strike deals with Facebook, YouTube and other Web content firms for priority access to consumers.
- The FCC's plan has drawn fierce protest by consumer advocates and some Democratic lawmakers for its potential to sharply alter the nature of business on the Internet and ultimately the experience of consumers.
- The result could be higher prices for consumers, some advocates say. If Netflix, for instance, had to pay more money to an Internet service provider for faster delivery of its streaming videos, it could pass along those costs to subscribers in the form of higher monthly fees.
- In another scenario, a company that offers broadband could also repackage Internet service plans to offer premium access at a higher cost to certain Web sites like Hulu, CNN.com or Pandora.
- "This plan doesn't bode well for consumers," said Delara Derakhshani, policy counsel for Consumers Union, the nonprofit organization that publishes *Consumer Reports*. "The FCC appears to have abandoned the principle that all Web sites and services should be treated equally on the Internet." (Source: [http://www.washingtonpost.com/business/technology/the-effect-of-net-neutrality-rules-on-consumers/2014/04/24/59c90556-cbda-11e3-95f7-7ecdde72d2ea\\_story.htm](http://www.washingtonpost.com/business/technology/the-effect-of-net-neutrality-rules-on-consumers/2014/04/24/59c90556-cbda-11e3-95f7-7ecdde72d2ea_story.htm), accessed 4-11-15)



### III. Who are the contestants?

#### 4. Municipal Broadband Projects

**a) Municipal broadband deployments are broadband Internet access services provided either fully or partially by local governments.**

1. Common connection technologies include unlicensed wireless (Wi-Fi, wireless mesh networks), licensed wireless (such as WiMAX), and fiber-optic.
2. Although many cities previously deployed Wi-Fi based solutions, municipal fiber-to-the-home networks are becoming more prominent because of increased demand for modern audio and video applications, which are increasing bandwidth requirements by 40% per annum.
3. Three basic models for the operation and funding of Wi-Fi networks have emerged:
  - (1) Networks designed solely for use by municipal services (fire, police, planners, engineers, libraries, etc.). Municipal funds are used to establish and run the network;
  - (2) Quasi-public networks for use by both municipal services and private users owned by the municipality but operated for profit by private companies ("private hot spots"). Such networks are funded by specially earmarked tax revenues then operated and maintained on a chargeable basis by private service providers;
  - (3) Private service providers using public property and rights of way for a fee. These allow for in-kind provision of private access to public rights of way to build-out and maintain private networks with a 'lease payment' or percentage of profits paid to the municipality.
4. There are four important economic aspects/questions to be considered with respect to municipal broadband:
  - (1) Which providers are currently providing service in a particular area or region?
  - (2) What will be the effect on current providers economically, socially, and individually?
  - (3) Will the installation be funded by local, state, or national government?
  - (4) Who will be responsible for on-going maintenance?



### III. Who are the contestants?

#### 4. Municipal Broadband Projects

##### b) Community Network Map

Communities invest in telecommunications networks for a variety of reasons - economic development, improving access to education and health care, price stabilization, etc. They range from massive networks offering a gig to hundreds of thousands in Tennessee to small towns connecting a few local businesses.

This map tracks a variety of ways in which local governments have invested in wired telecommunications networks as well as state laws that discourage such approaches.

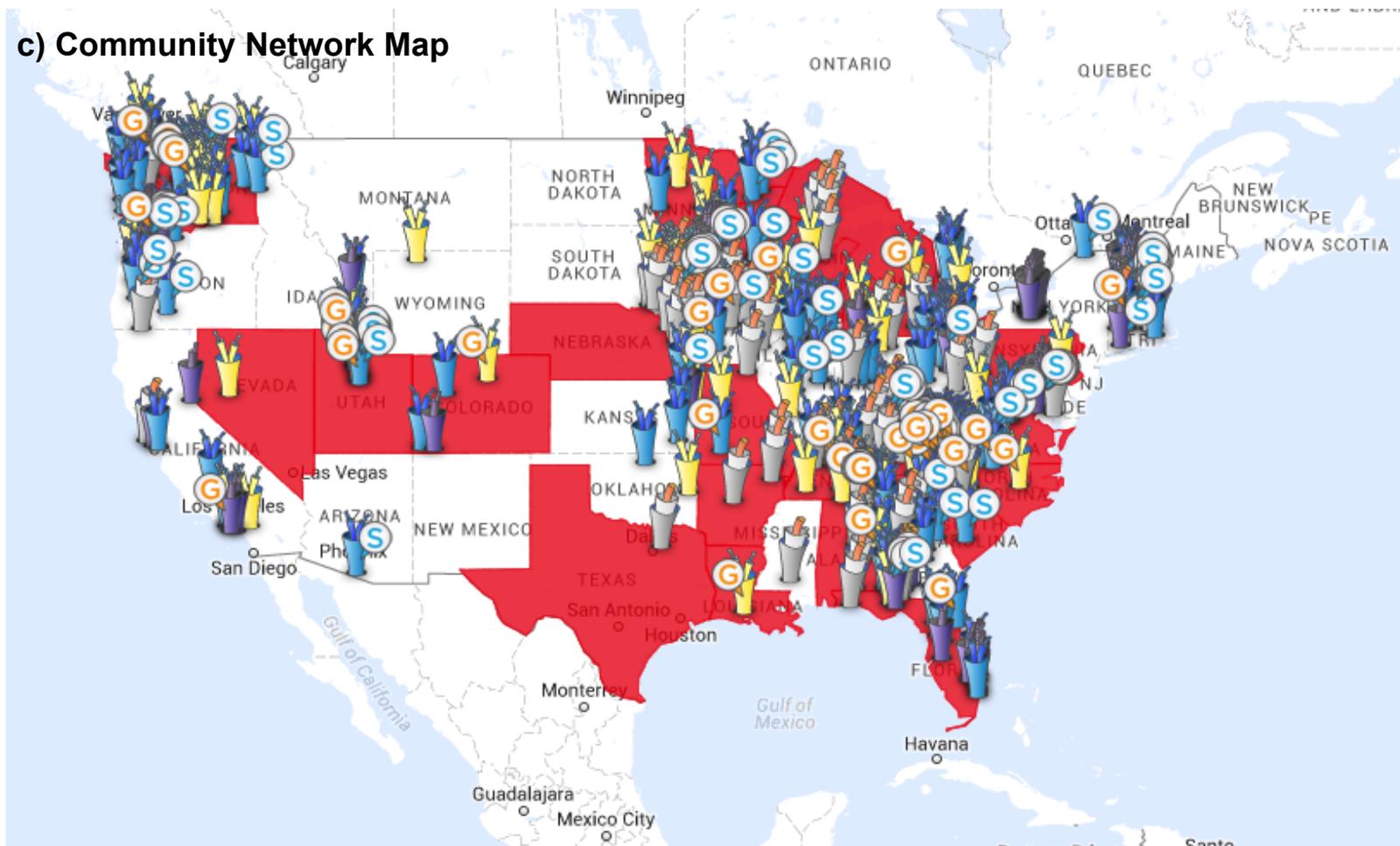
The map includes over 450 communities (updated Jan, 2015). Nineteen states have barriers in place that discourage or prevent local communities from deciding locally if such an investment is a wise decision.

-  89 communities with a publicly owned FTTH network reaching most or all of the community.
-  76 communities with a publicly owned cable network reaching most or all of the community.
-  Over 180 communities with some publicly owned fiber service available to parts of the community.
-  Over 110 communities with publicly owned dark fiber available.
-  Over 40 communities in 13 states with a publicly owned network offering at least 1 Gigabit services.

### III. Who are the contestants?

#### 4. Municipal Broadband Projects

c) Community Network Map



## Verizon v. FCC



Court	United States Court of Appeals for the District of Columbia Circuit
Full case name	<i>Verizon Communications Inc. v. Federal Communications Commission</i>
Argued	September 9, 2013
Decided	January 14, 2014
Citation(s)	740 F.3d 623 (D.C. Cir. 2014); 11-1355 (2014)

### Holding

The FCC does not have the authority to regulate broadband providers as per the FCC's own Open Internet Order. The court vacated in part and upheld in part the [FCC Open Internet Order 2010](#).

## IV. Net Neutrality in the US

### 1. Historical background

Verizon v. Federal Communications Commission was a 2014 U.S. Court of Appeals for the D.C. Circuit case vacating portions of the FCC Open Internet Order 2010 that the court determined could only be applied to common carriers.

**The court ruled that the FCC did not have the authority to impose the order in its entirety. Because the FCC had previously classified broadband providers under Title I of the Communications Act of 1934, the court ruled that the FCC had relinquished its right to regulate them like common carriers.**

**The case was largely viewed as a loss for network neutrality supporters and a victory for the cable broadband industry.**

## National Cable & Telecommunications Association v. Brand X Internet Services



Supreme Court of the United States

Argued March 29, 2005  
Decided June 27, 2005

<b>Full case name</b>	<i>National Cable &amp; Telecommunications Association et al. v. Brand X Internet Services et al.</i>
<b>Docket nos.</b>	04-277 <a href="#">↗</a>
<b>Citations</b>	545 U.S. 967 ( <a href="#">more</a> ) 125 S. Ct. 2688; 162 L. Ed. 2d 820; 2005 U.S. LEXIS 5018; 18 Fla. L. Weekly Fed. S 482
<b>Prior history</b>	FCC order affirmed in part, vacated in part, remanded, <i>Brand X Internet Servs. v. FCC</i> , 345 F.3d 1120 (9th Cir. 2003); rehearing, rehearing <i>en banc</i> denied, 2004 U.S. App. LEXIS 8023 (9th Cir. Mar. 31, 2004); <i>cert.</i> granted, sub nom. <i>Nat'l Cable &amp; Telecomms. Ass'n v. Brand X Internet Servs.</i> , 543 U.S. 1018 (2004)
<b>Subsequent history</b>	On remand, sub nom. <i>Brand X Internet Servs. v. FCC</i> , 2006 U.S. App. LEXIS 1573 (9th Cir., Jan. 23, 2006)

## IV. Net Neutrality in the US

### 1. Historical background

**National Cable & Telecommunications Association et al. v. Brand X Internet Services et al.**, 545 U.S. 967 (2005), is a United States Supreme Court case in which the Court declared in a 6–3 decision that the administrative law principle of Chevron deference to statutory interpretations by administrative agencies tasked with executing the statute trumped the precedents of the United States Courts of Appeals unless the Court of Appeals found that the statute was "unambiguous" under Chevron.

**Brand X** argued that when circuit precedent conflicts with administrative interpretation, Chevron deference ought not apply; substantively, Brand X argued cable companies should be classified as a telecommunications service because they are conduit for simple data communication and should therefore be required to allow their rivals to use the telecommunication component of their service. This would allow rivals like AOL and EarthLink to offer faster Internet connections

The Supreme Court therefore upheld the Federal Communications Commission's determination that a cable Internet provider is an "information service", and not a "telecommunications service" and as such competing Internet service providers (ISPs) like Brand X were denied access to the cable and phone wires to provide home users with competing Internet service.

**Holding:** The Court held that the FCC properly decided that cable service is an information service. Ninth Circuit Court of Appeals reversed and remanded.

## IV. Net Neutrality in the US

### 1. Historical Background

#### FCC trumps Congress in net neutrality fight

- There are three Congressional oversight committees: House Commerce Committee, House Oversight Subcommittee, Senate Committee on Commerce, Science, and Transportation
- New proposed Internet rules from the FCC) are sidelining Congress in the fight over net neutrality.
- Some lawmakers, particularly on the Republican side of the aisle, say they remain committed to moving forward with parallel legislation. But that initiative may be rendered irrelevant by the tough new rules on the horizon.
- Legal challenges to the FCC's rules are now likely to take center stage.
- "Now it just heads to the courts," said Rep. Greg Walden (R-Ore.), the head of the House Subcommittee on Communications and Technology. "I think they're on the wrong path, I think they made a wrong decision and I think they're going to have a lot of explaining to do in the courts, where this will spend its life."
- While some Democrats have been open to negotiations, none have publicly signed on to a draft bill floated by GOP leaders of the House and Senate Commerce Committees earlier this year. Democrats think the GOP proposal seeks to weaken the FCC.
- Depending on their political leanings, some argue that Congress must act now. They assert that our elected officials must not allow the FCC to take over the Internet in a naked ideological power grab.

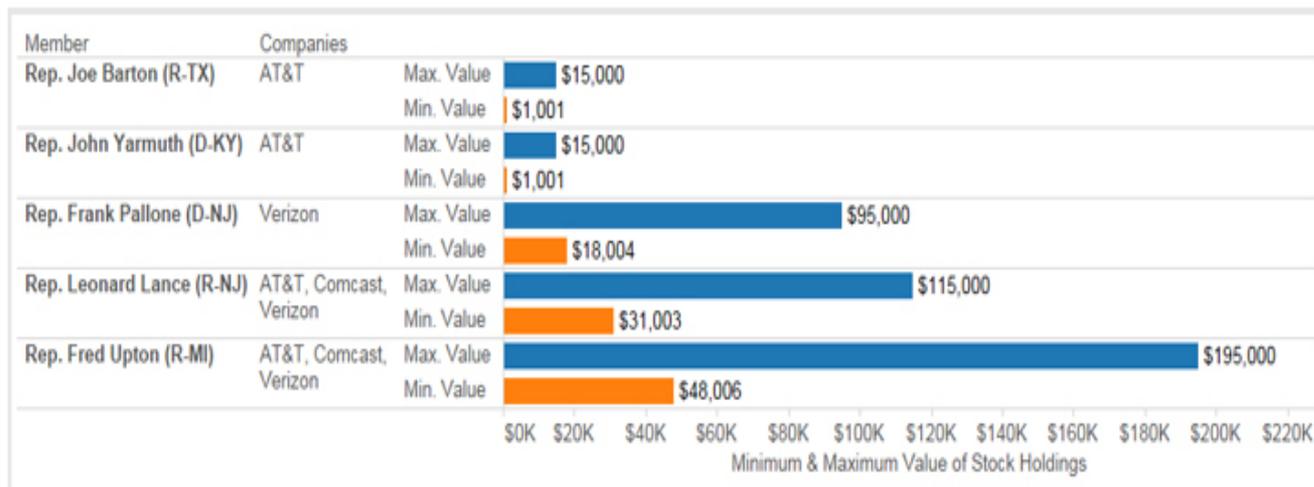
## IV. Net Neutrality in the US

### 1. Historical Background

#### FCC trumps Congress in net neutrality fight

Maybe the following also needs to be considered:

#### Stock Ownership by Members of the House Communications and Technology Subcommittee



Source: <http://maplight.org/content/companies-with-stake-in-net-neutrality-debate-have-financial-ties-to-subcommittee-members-ov>, last accessed April 11, 2015.

## IV. Net Neutrality in the US

### 2. President Obamas reclassification recommendation



BUFFERING...



## IV. Net Neutrality in the US

### 3. FCC Ruling on Net Neutrality



## IV. Net Neutrality in the US

### 4. Potential Hurdles for Net Neutrality Ruling

The telecommunications industry has a myriad of objections to the FCC's new net neutrality rules. Its legal challenge could start with a procedural point → whether the FCC provided adequate notice.

1. The plaintiffs: Industry groups representing wireless carriers, cable firms and ISPs are expected to file law suits to overturn the new rules as soon as they land in the official record of government actions: The FCC sent these on April 1, 2015 to the *Federal Register* for publication. They appeared on April 14, 2015.



**FEDERAL REGISTER**  
The Daily Journal of the United States Government

2. These industry groups are: CTIA - The Wireless Association (originally known as the Cellular Telephone Industries Association), National Cable & Telecommunications Association, United States Telecom Association. They are likely to file lawsuits against the rules and they plan to attack on three fronts:

- (1) They are expected to take issue on procedural grounds that the FCC did not provide proper notice to the industry for various parts of the new rules.
- (2) They will argue the FCC does not have the authority to reclassify broadband services for regulation under the same utility-like rules used on the phone network.
- (3) They may take aim at specific provisions such as the ban on paid prioritization.



## IV. Net Neutrality in the US

### 4. Potential Hurdles for Net Neutrality Ruling

- The procedural argument stems from abrupt changes to the rules after President Obama's November 2014 proclamation that he wanted tougher rules to protect an open Internet. → He wanted the Internet reclassified as a Title II Telecommunications Service.
- The FCC had followed typical procedure by issuing a Notice of Proposed Rule Making in May 2014. After it changed its proposed rules, it did not issue a new notice despite what the industry argues were meaningful changes, such as altering the definition of what constitutes commercial mobile service & expanding the rules to cover interconnection agreements. → Federal law requires adequate notice.
- In this context a senior FCC official responded by stating that the original proposal in May 2014 provided more than ample notice that the agency was considering reclassification of broadband service as a Title II Telecommunications Service since this laid out detailed questions about such a route. The public comment and other commissioners' statements also gave notice to the public that the FCC was considering Title II.

3. In the past, opponents of FCC rules have pursued legal challenges over failures to follow procedures with some success:

- (1) In 2011, an FCC media ownership rule was tossed out by the Third Circuit Court of Appeals because of procedural mistakes.
- (2) In 2010, the FCC lost a court challenge because it failed to provide adequate notice.

**The opposition will have to show that a reasonable person would have known that the FCC's ultimate decision was under consideration.**

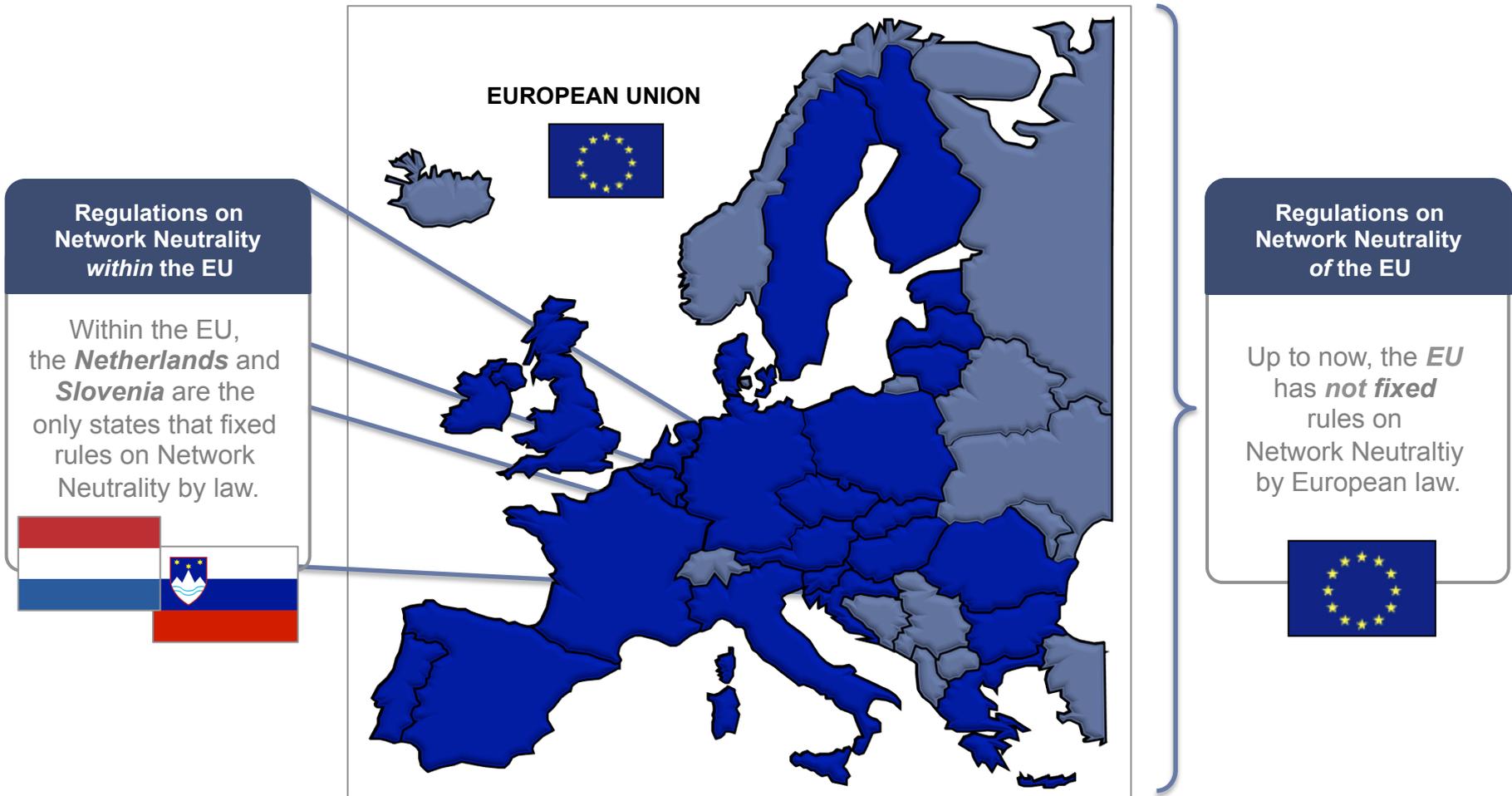
## IV. Net Neutrality in the US

### 4. Potential Hurdles for Net Neutrality Ruling

4. If procedural grounds fail, the meat of the challenger's case will hang on whether the FCC has the authority to reclassify the Internet as a Title II Telecommunications Service.
  - (1) In the 1990s, the FCC classified DSL Internet sent over phone lines as a Telecommunications Service, but in 2002, it classified high-speed Internet provided by cable companies as an Information Service. A legal challenge to that decision made its way up to the Supreme Court, which ruled that the decision was up to the FCC's discretion.
  - (2) Since then, wireless and cable companies have spent billions of dollars investing in broadband networks. They claim that a policy reversal will damage planned businesses that rely on the existing rules.
  - (3) If a court found violations in procedure, the rules would be sent back to the FCC, which they could go through through the proper process and pass them again.
  - (4) In turn, a delay could buy the industry time in the hope of changes to the FCC if a different party got control of the White House.
5. Verizon and AT&T are expected to sue over the new rules, which could tie the issue up in court for years.

## V. Net Neutrality in Europe

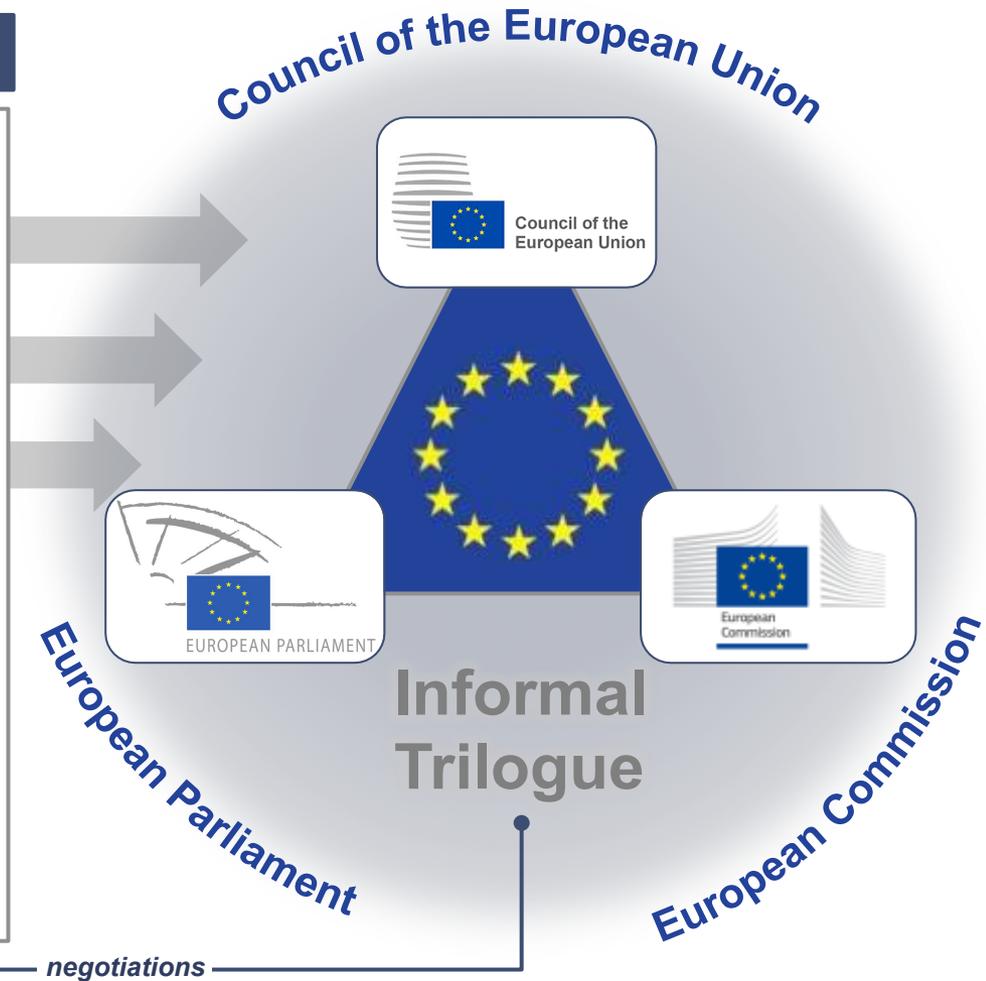
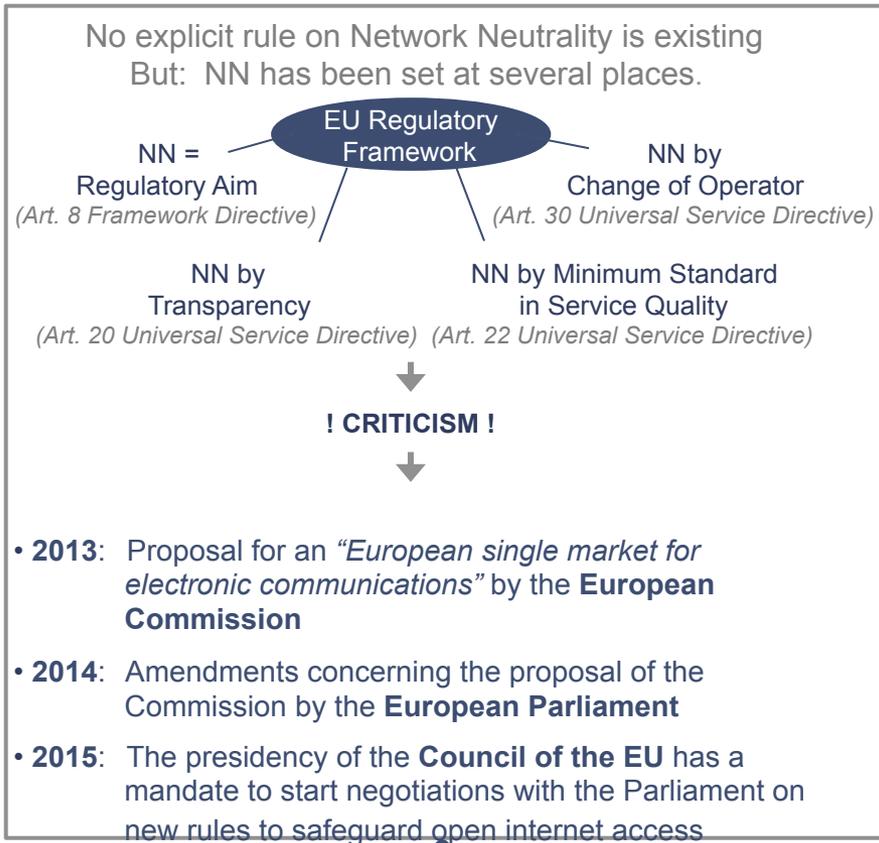
### 1. Proposed Regulation



# V. Net Neutrality in Europe

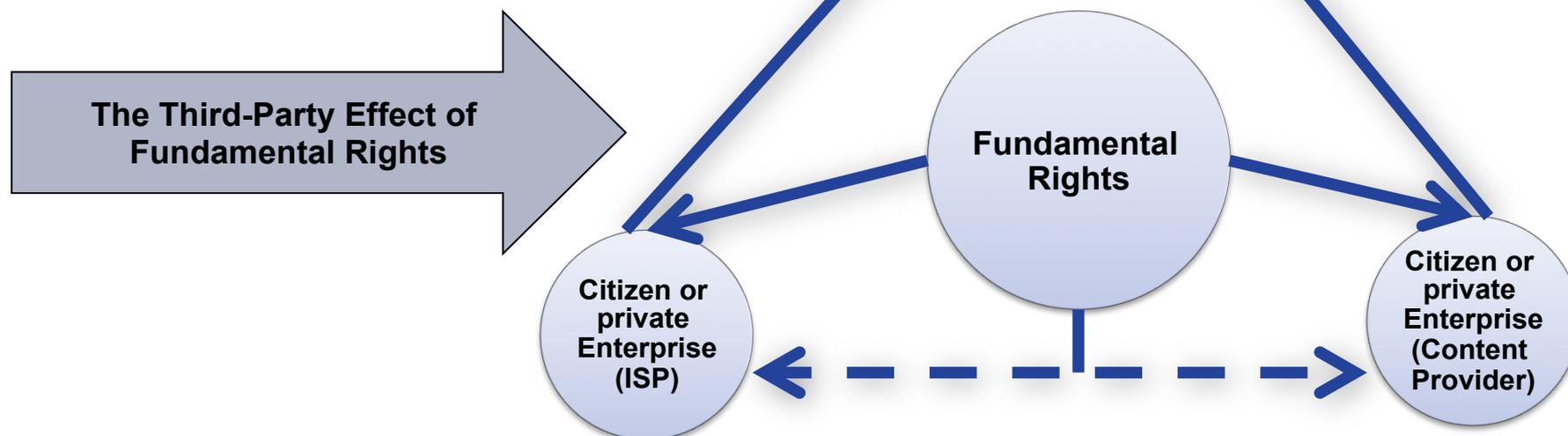
## 2. Latest Proposal on Network Neutrality and Trilogue

### Steps toward rules on Network Neutrality in the European Union



## V. Net Neutrality in Europe

### 3. Constitutional Law Perspective



*„Depending on the content of the guarantee and the circumstances of the case, **the indirect binding force of the fundamental rights on private persons** may instead come closer to or even be the same as the binding force of the fundamental rights on the state. This is relevant to the **protection of communications**, in particular when private enterprises themselves take over the provision of public communications and thus assume functions which were previously allocated to the state as part of its services of general interest - such as the provision of postal and telecommunications services.” (BVerfG Fraport Judgement, para 59).*

## V. Net Neutrality in Europe

### 3. Constitutional Law Perspective

- Under European constitutional law doctrine everybody must have a chance to influence public opinion and get information from all sources.
- Therefore the open internet is seen as a prerequisite for diversity of opinion and freedom of information.

#### Art. 5 Basic Law for the Federal Republic of Germany

##### Freedom of Expression

(1) Every person shall have the right freely to express and disseminate his opinions in speech, writing, and pictures and to inform himself without hindrance from generally accessible sources. Freedom of the press and freedom of reporting by means of broadcasts and films shall be guaranteed. There shall be no censorship.

#### Art. 10 European Convention on Human Rights

##### Freedom of Expression

(1) Everyone has the right to freedom of expression. This right shall include freedom to hold opinions and to receive and impart information and ideas without interference by public authority and regardless of frontiers. This article shall not prevent States from requiring the licensing of broadcasting, television or cinema enterprises.

*“[The press] duty is nevertheless to impart [...] information and ideas on all matters of public interest [...]. Not only does the press have the task of imparting such information and ideas; the public also has a right to receive them. Were it otherwise, the press would be unable to play its vital role of **public watchdog**.”* (ECtHR Pedersen/Denmark Judgment, para 71)

## V. Net Neutrality in Europe

### 3. Constitutional Law Perspective

- Justification of fundamental rights interferences
  - General prerequisites
    - Prescribed by law
    - Legitimate aim
      - Art. 10 ECHR: national security, territorial integrity or public safety, for the prevention of disorder or crime, for the protection of health or morals, for the protection of the reputation or rights of others, for preventing the disclosure of information received in confidence, or for maintaining the authority and impartiality of the judiciary
    - Proportionality
      - Necessity in a democratic society
  - Justified exceptions in the specific context of net neutrality: **Reasonable traffic management measures** (see Art. 23 para 5 Single Market Regulation draft)
    - Implementation of a legislative provision or a court order
    - preventing or impeding serious crime
    - Preserving the integrity and security of the network
    - Minimising the effects of temporary or exceptional network congestion

## V. Net Neutrality in Europe

### 3. Constitutional Law Perspective

- Blocking
  - Freedom of expression is negatively impacted, as blocking removes certain content from the “market of opinions”
- Manipulation of Content
  - Right to respect for private and family life, home and correspondence (Art. 8 European Convention on Human Rights) secures unobserved communication. Manipulation of Content infringes this right.
  - The negative side of freedom of expression is also affected.
- Slowing down (throttling)
  - Freedom of expression covers equal opportunity communication:
    - Content providers are granted equal access to media competition,
    - Recipients can rely on equal participation in the public communication process.
  - Purposeful throttling of data traffic interferes with freedom of expression:
    - If certain content is throttled, its chance to impact the public opinion is decreased, as recipients are impeded in their efforts to access it.
    - The transfer of undesired statements and public criticism may be slowed down.



## V. Net Neutrality in Europe

### 4. Media Law Perspective

#### a) Blocking and Throttling

- Blocking or throttling are often used to prevent or impede the use of services provided by competitors
- It is commonly deployed by telecommunication providers as a countermeasure to OTT-services.
- These practices have become a topic of German media regulation law
  - Under **the Thuringian Media Act** blocking of media content is explicitly forbidden (§37 Abs. 3 S. 1 ThürLMG). It is also forbidden to slow down or hinder the network transfer of broadcasting or internet services in favor of other data transfer (§37 Abs. 3 S. 1 ThürLMG), so targeted throttling of media data is ruled out.
  - **The North Rhine-Westphalian Media Act** enables the authority to take measures to guarantee net neutrality (§88 Abs. 3 S. 4 LMG NRW). There is no definition of net neutrality in the text but it can be assumed that blocking and throttling of media content would contradict the implied concept .



## V. Net Neutrality in Europe

### 4. Media Law Perspective

#### b) Prioritization and Service Classes

- Specific services – for instance the provider's own services or services that are separately charged– can be transmitted preferentially.
- The Thuringian Media Act addresses service classes by ruling out separate charges for the data transfer of broadcasting and telemedia services under the jurisdiction of Thuringia (§37 Abs. 3 S. 2 ThürLMG)
- Justification of the **No pay for priority principle**
  - Quality of service classes give leverage to the big ISPs and content providers, while smaller companies are disadvantaged (“cableization of the internet”)
    - Small media companies cannot afford to pay the same prices as big companies. Thus they are less attractive for ISPs to negotiate with. Their content won't be as accessible as content of big media companies.
  - There has to be freedom of choice for media consumers to choose the content they want to receive.
    - If quality of service classes are permitted, ISPs have the opportunity to influence this decision by granting certain media companies better terms of transport for their content.



## V. Net Neutrality in Europe

### 4. Media Law Perspective

#### c) Minimum Quality of Service Standard

- Parameters of data transmission and service quality are bandwidth, delay, fluctuation and packet loss.
- The introduction of quality of service classes would provide an incentive to limit the capacity of the open internet. This would jeopardize the basic and universal access to telecommunication services.
- This issue is not currently covered by European media law. However, Art. 23 of the European Parliament's amendments to the Single market proposal of the Commission states:

*“Providers of internet access, of electronic communications to the public and providers of content, applications and services shall be free to offer specialised services to users. Such services shall only be offered if the network capacity is sufficient to provide them in addition to internet access services and they are not to the material detriment of the availability or quality of internet access services. Providers of internet access to users shall not discriminate between such services.”*

- Justification:
  - National regulatory authorities may define minimum service quality standards to avoid decreasing Best-Effort service quality.

## V. Net Neutrality in Europe

### 4. Media Law Perspective

#### d) "Drosselkom" Campaign

„384 kBit/s – Available in your area now!“



„Just like the good old days“



„Witness it disappearing; We reinvented flat rates and net neutrality. Hit the brakes and make the switch now. Take part in the German regression“

## V. Net Neutrality in Europe

### 4. Media Law Perspective

#### e) Product Differentiation

- This group of cases involves the so called “Drosselkom-Fall” of Deutsche Telekom.
  - In 2013, German Telecom announced plans to introduce a clause into their terms and conditions that would allow the company to throttle internet connections down to 384 KBit/s after the customer has used up 75 GByte of data volume in one month.
  - After that customers would have the option of paying additional charges for continued usage at normal speed.
  - Usage of Spotify (Audio Streaming Service) did not enter into the data volume calculation, granting the service privilege over others
  
- Under the Thuringian Media Act, if there are limitations of data volume, exceptions for certain content or services are not allowed (cf. Deutsche Telekom and Spotify).
  
- Justification:
  - Prevention of a two-tier internet

## V. Net Neutrality in Europe

### 4. Media Law Perspective

#### f) Paid Peering and the Role of CDNs

- Videos have to be provided in good quality, otherwise the customer is likely to change providers
- Paid peering agreements between content provider and ISP become more and more frequent.
- Is this an issue of net neutrality?
  
- There are only a few cases on paid peering.
- No regulation is in force so far.
  - Do CDNs abuse market power and charge extensive price?
  - How could the information gap about CDNs infrastructure and their business behavior be closed?

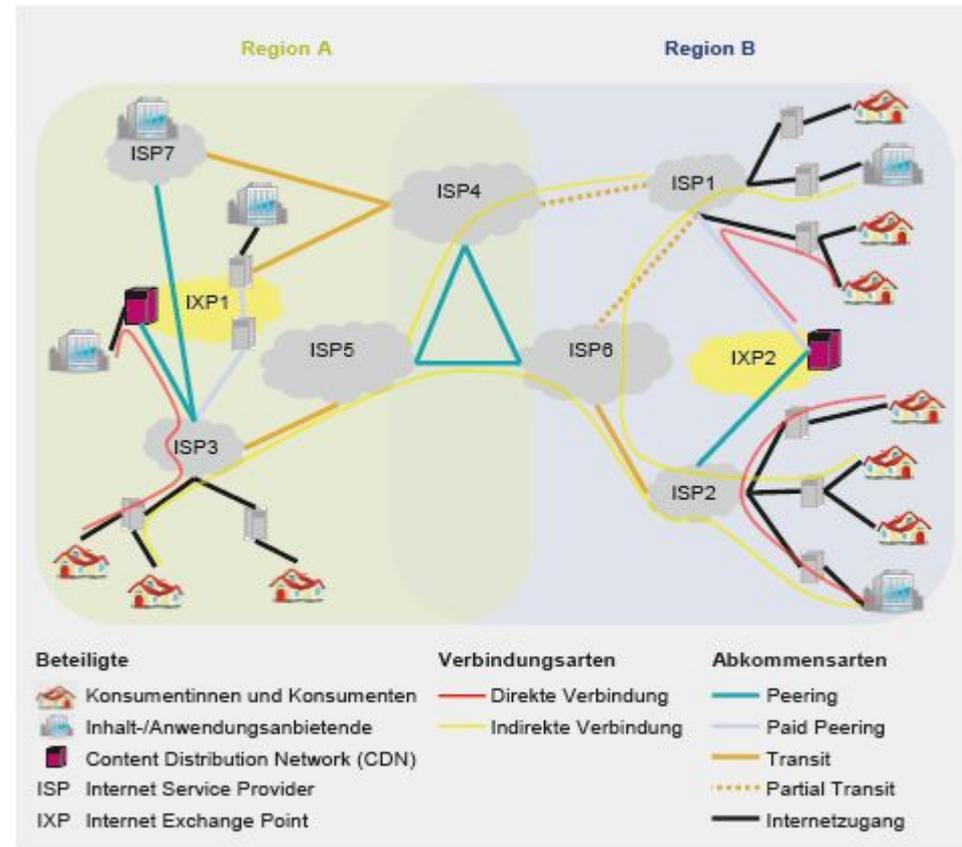


Abbildung 1 Schematische Darstellung des Internets und seiner Akteure

Source: BAKOM, Report on Net Neutrality 2012



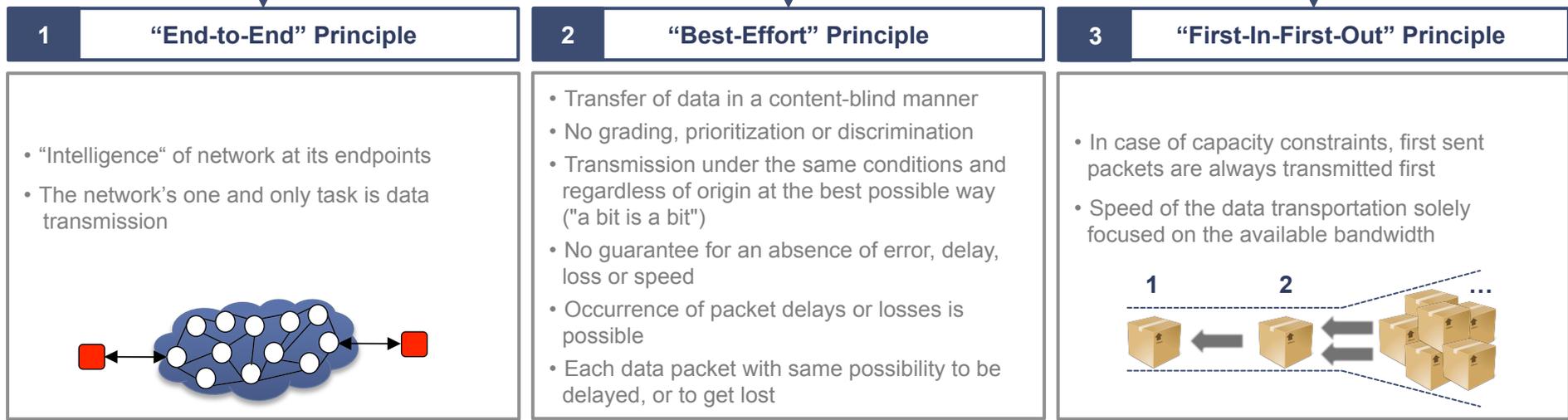
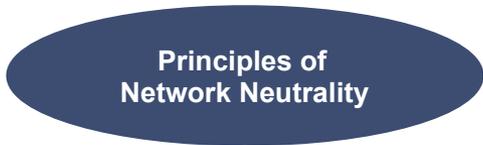
## V. Net Neutrality in Europe

### 5. Results

- The ongoing debate on net neutrality has not yet reached consensus.
- Only singular provisions deal with the issue, usually protecting broadcasters and publishers. They leave the involved players in the following position:
  - **ISP** cannot realize their demands to full extent:
    - No blocking or throttling is allowed to combat OTT competition
    - No payment for prioritization of media content limits the impact of quality classes
    - ISP could abolish flat rates and could introduce differentiated marketing concepts which are orientated at data volume
  - The interests of **media companies** can be partially enforced:
    - There will be no extra payment for quality classes. Otherwise small providers could be discriminated.
    - So far, the demand to prioritize of media content for free will probably not be fulfilled in the political arena.
  - Sovereignty of end **users** is preserved
    - The users choose, which content they want to consume, not the ISPs.
    - Public service broadcasting and the press will be accessible in the open internet.

# VI. Economic Perspective

## 1. Basic Principles



Source: See Picot/Grove/Sedlmeir (2012), pp. 45f.; Schlauri (2010), pp. 28f.; van Schewick (2010), p. 85; Felten (2006), p. 2; Vogelsang (2007), p. 220; Lessig, (2002), p. 1789.

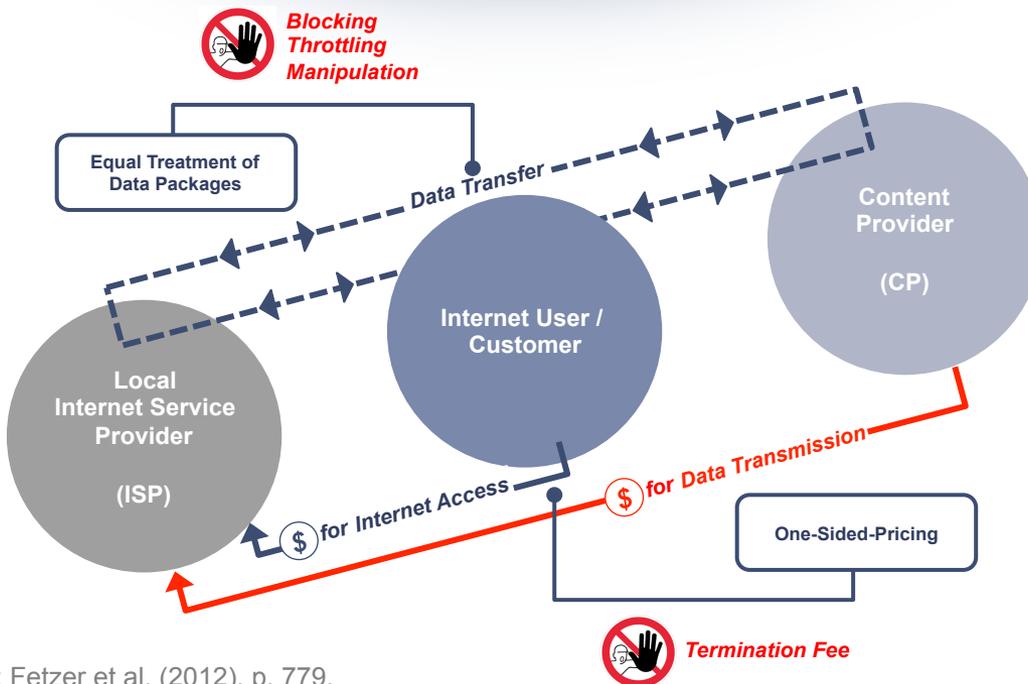
## VI. Economic Perspective

### 2. Network Neutrality in an Economic View

#### Economic Perspective on Network Neutrality

##### Non-Discrimination-Rule

- ISPs cannot distinguish between data packets
- ISPs cannot discriminate in terms of price or quality of transmission depending on the type, the origin, or the destination of a data packet
- ISPs cannot engage in traffic management by, e.g., prioritizing traffic, favoring certain packets over others



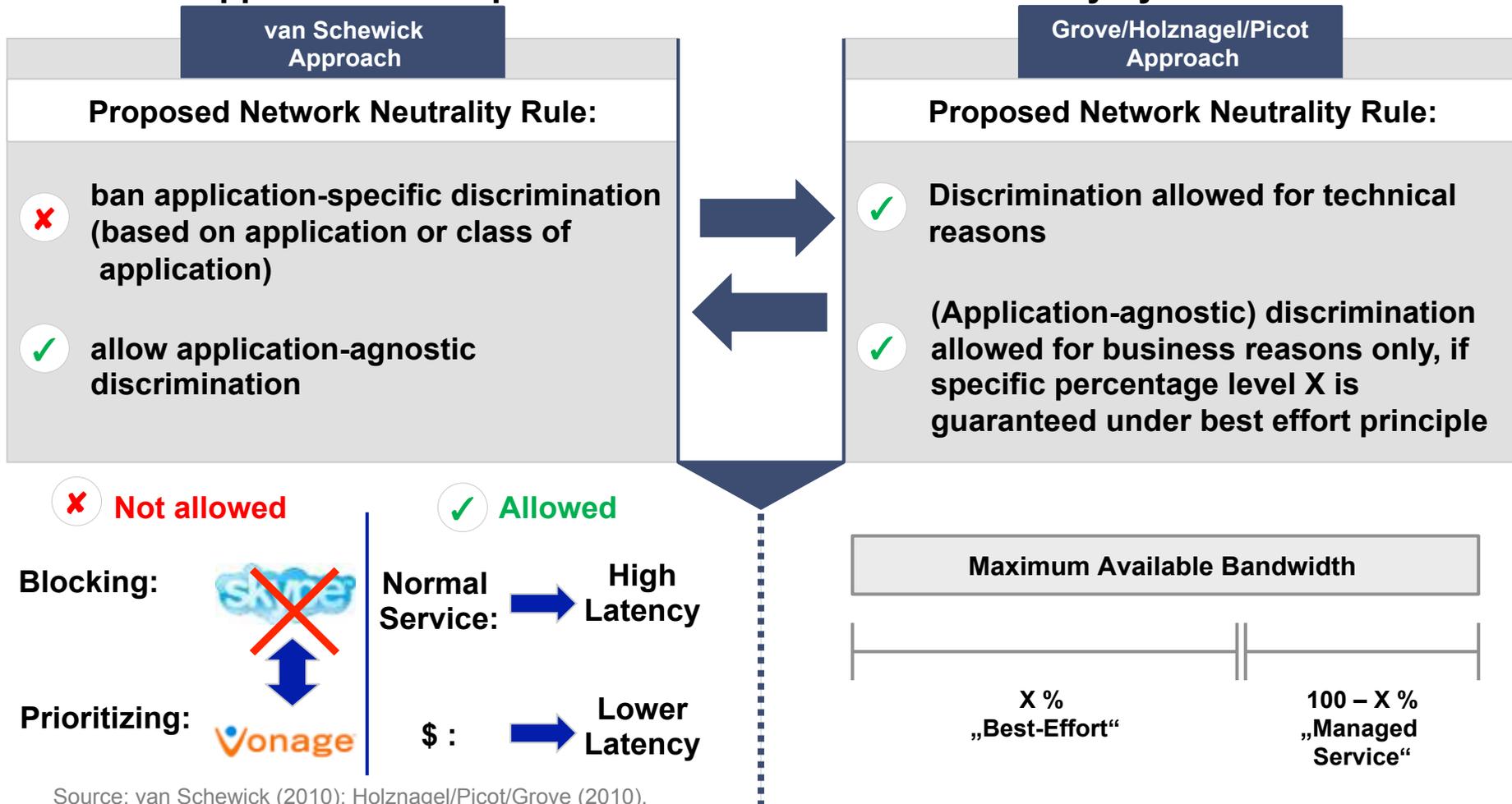
##### Zero-Pricing-Rule

- ISPs cannot distinguish between packets
- ISPs cannot determine the origin of the packets
- ISPs cannot charge the originator of a packet a fee for transmitting it to users

Source: Schuett (2010), p. 1; Fetzer et al. (2012), p. 779.

## VI. Economic Perspective

### 3. Potential Approaches to Implement Rules on Network Neutrality by Law



Source: van Schewick (2010); Holznagel/Picot/Grove (2010).



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Thank you for attending our panel