

Origin of this work

- Trying to understand concept of “specialized services”.
 - Discussion in the Open Internet Advisory Committee.
- We concluded the framing of the concept was backwards.

A (more) realistic picture

Single firm IP platform

Firm 1

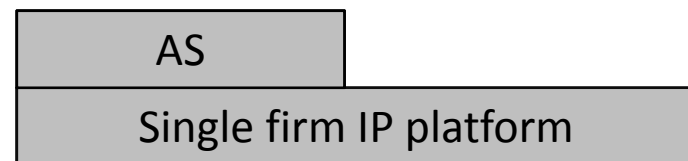
Single firm IP platform

Firm 2

A (more) realistic picture

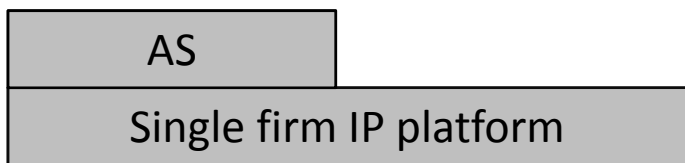


Firm 1

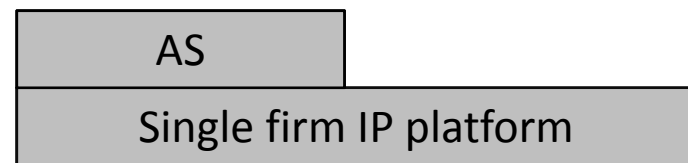


Firm 2

A (more) realistic picture

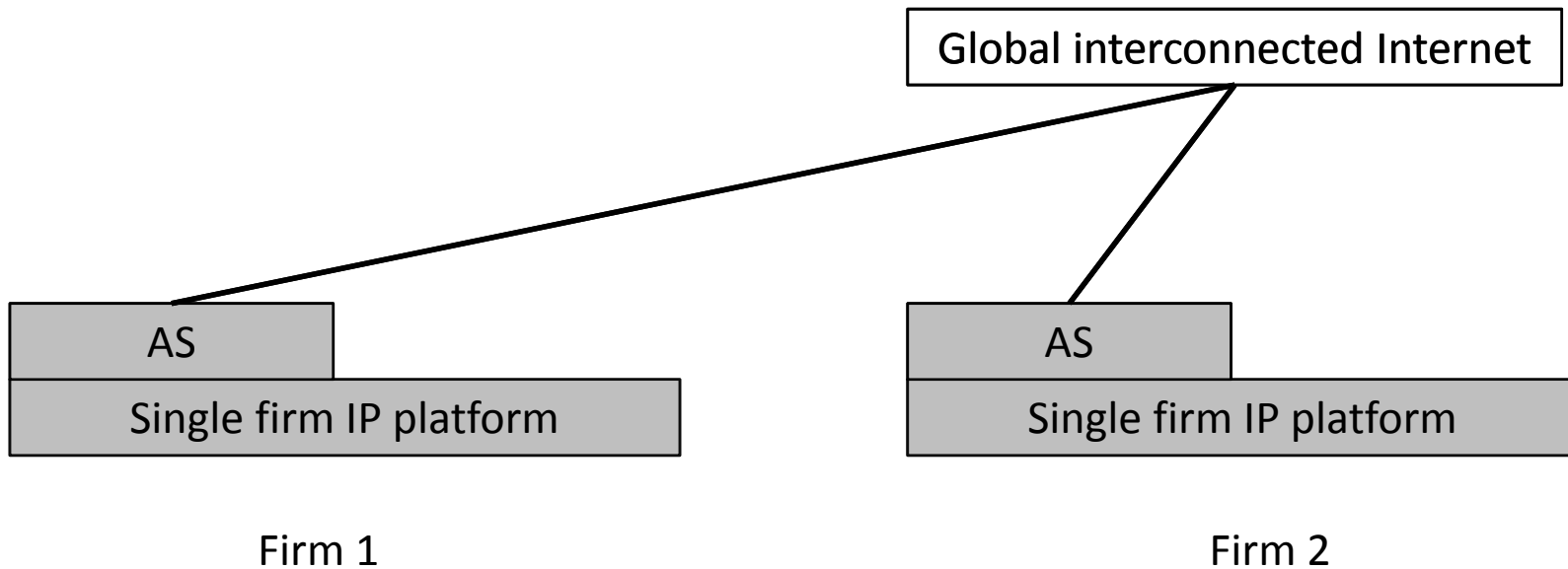


Firm 1

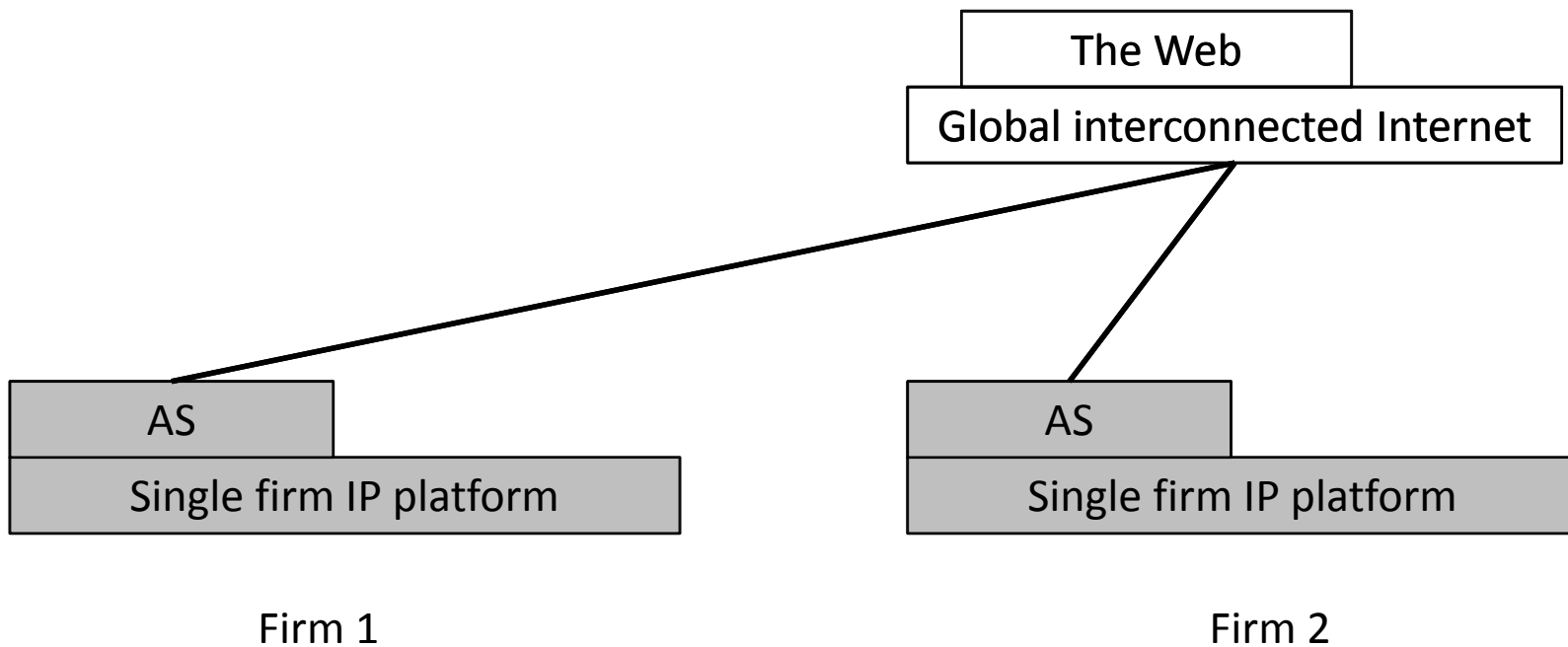


Firm 2

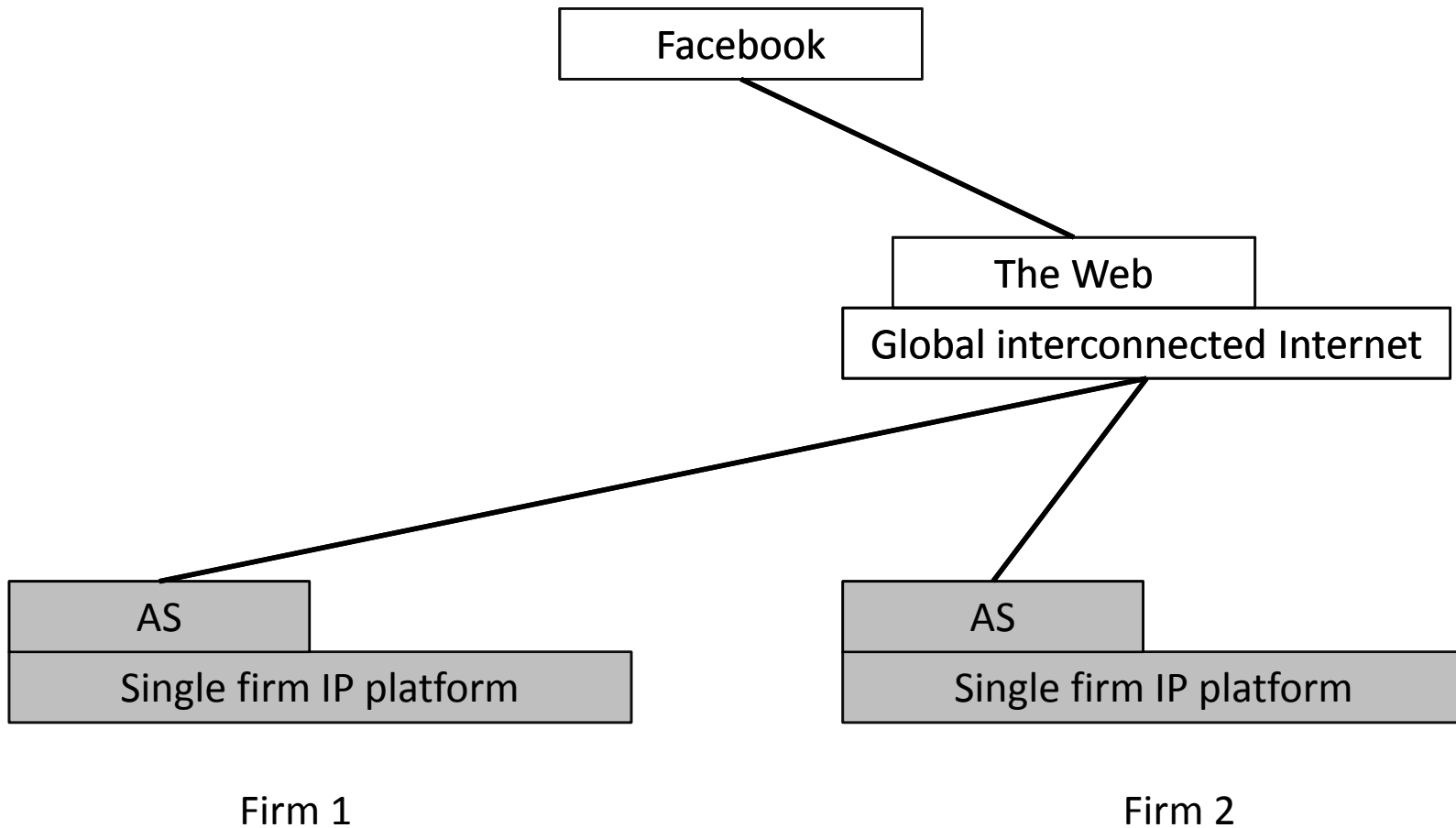
A (more) realistic picture



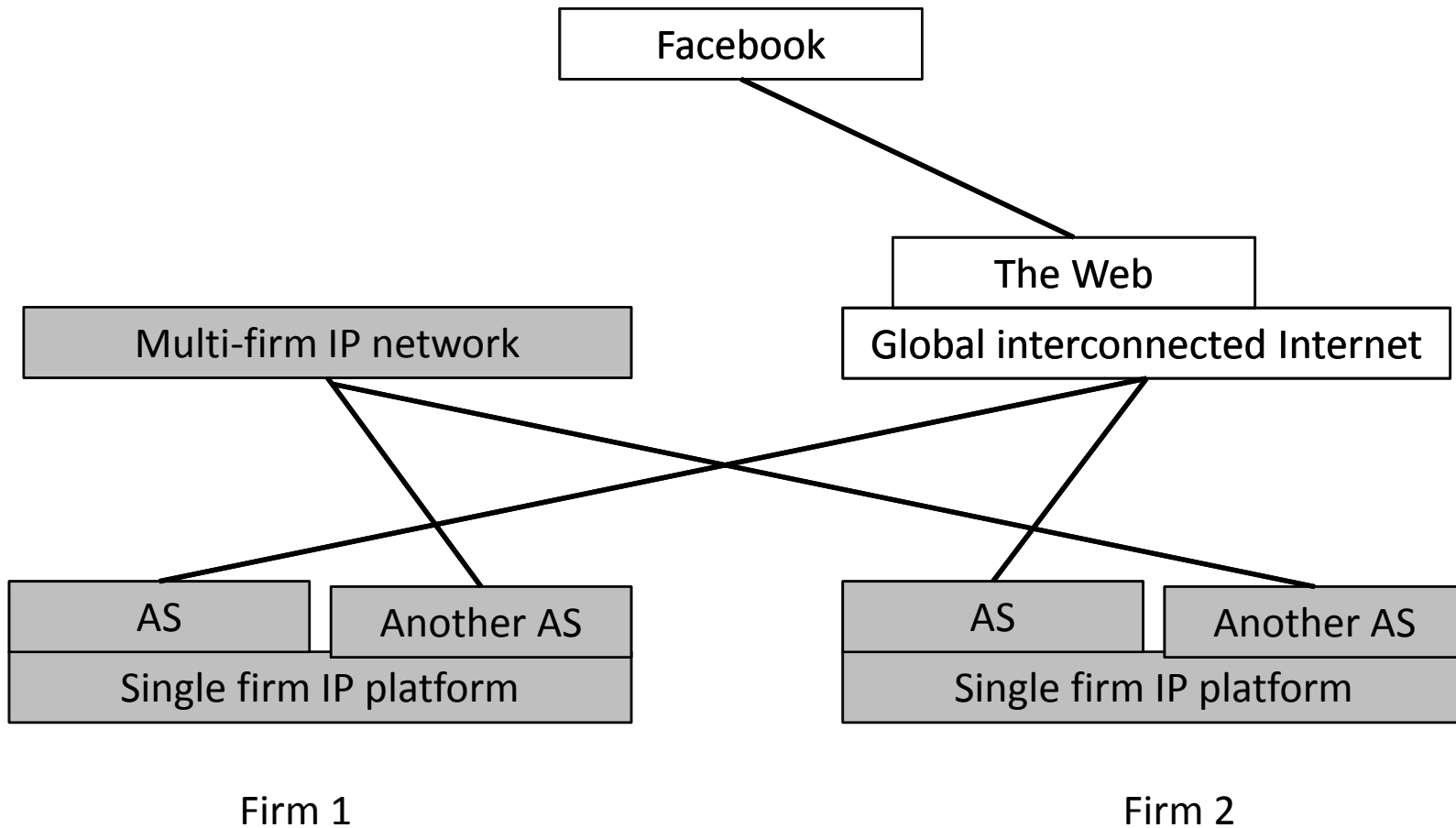
A (more) realistic picture



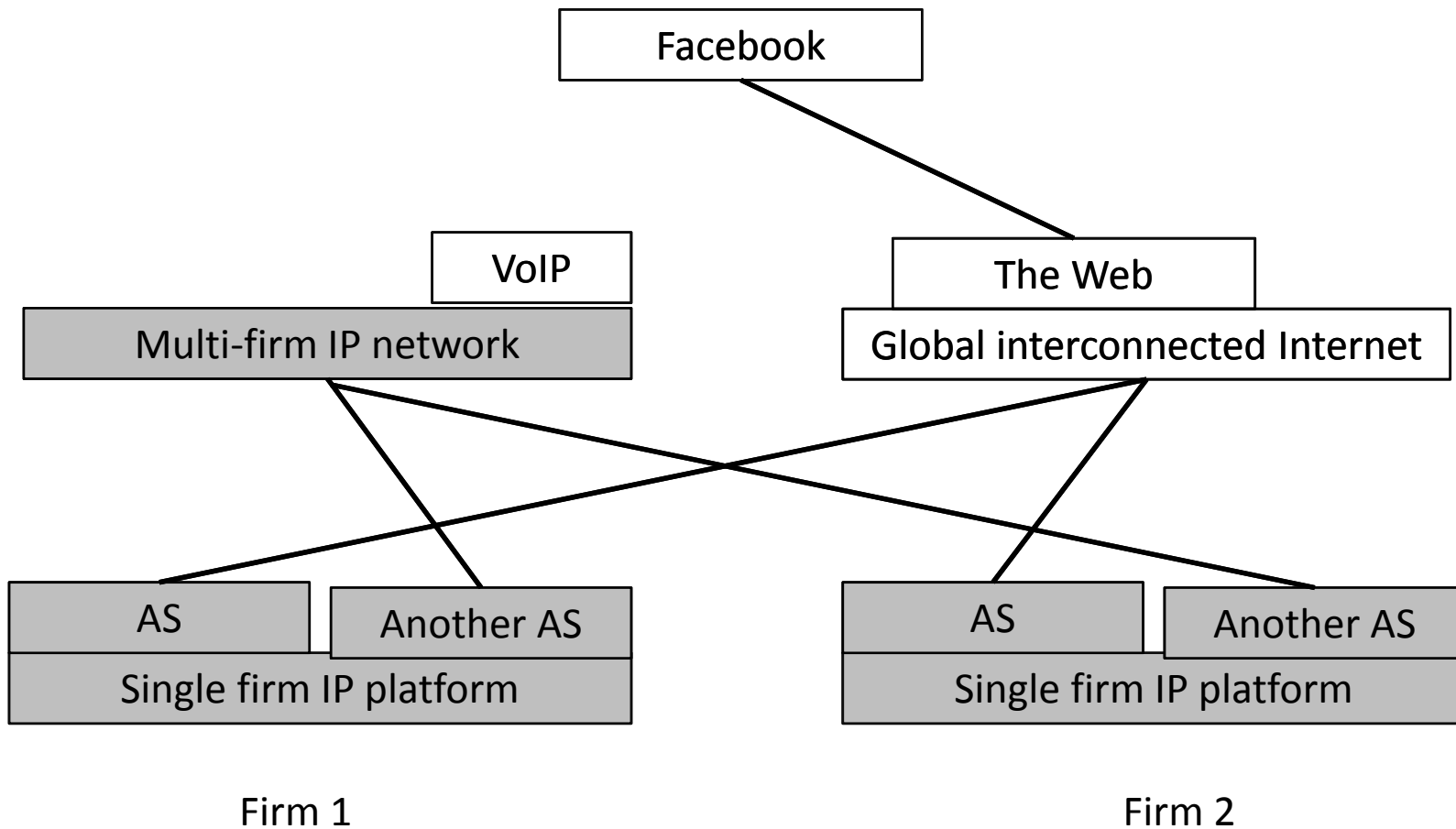
A (more) realistic picture



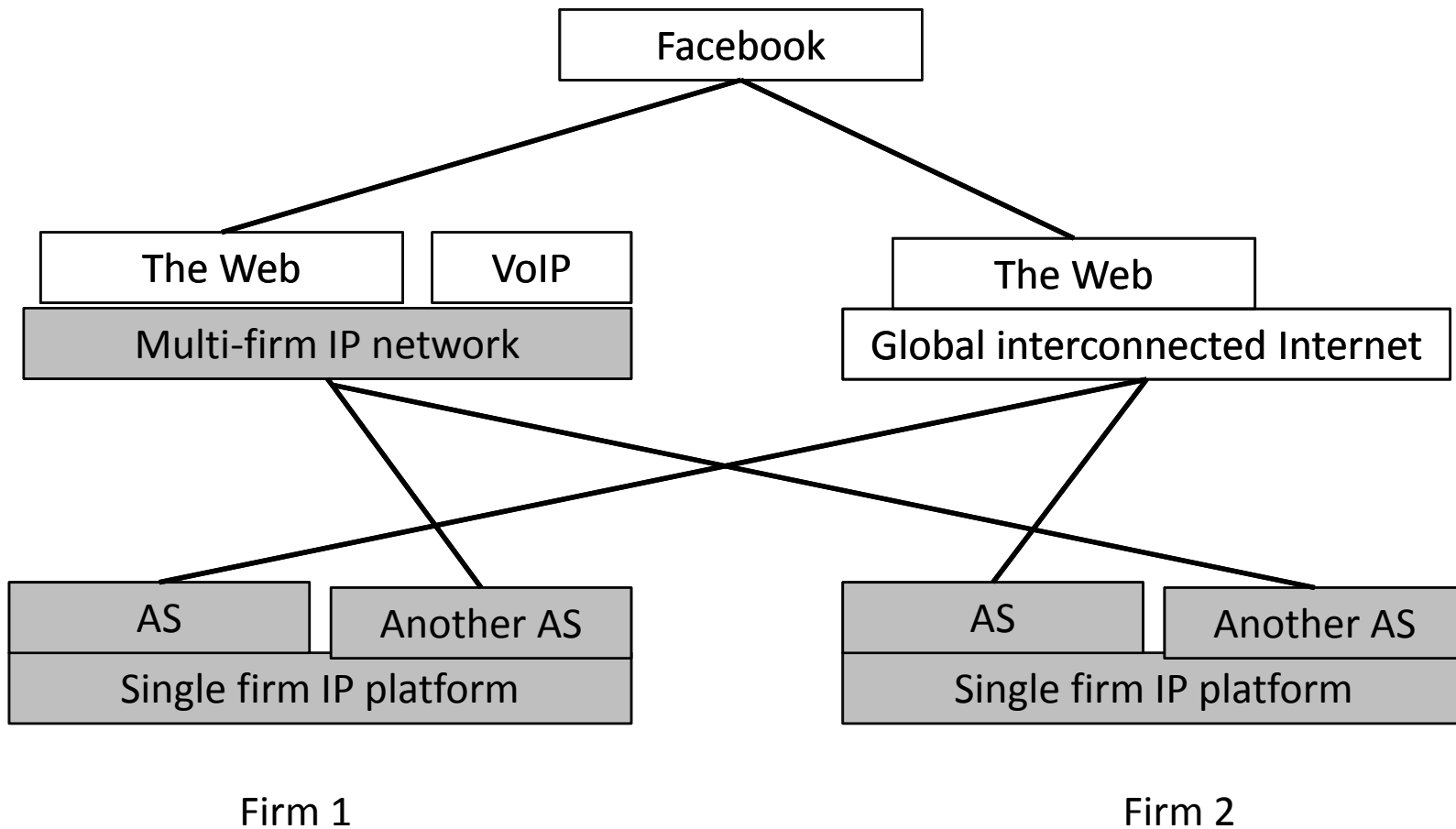
A (more) realistic picture



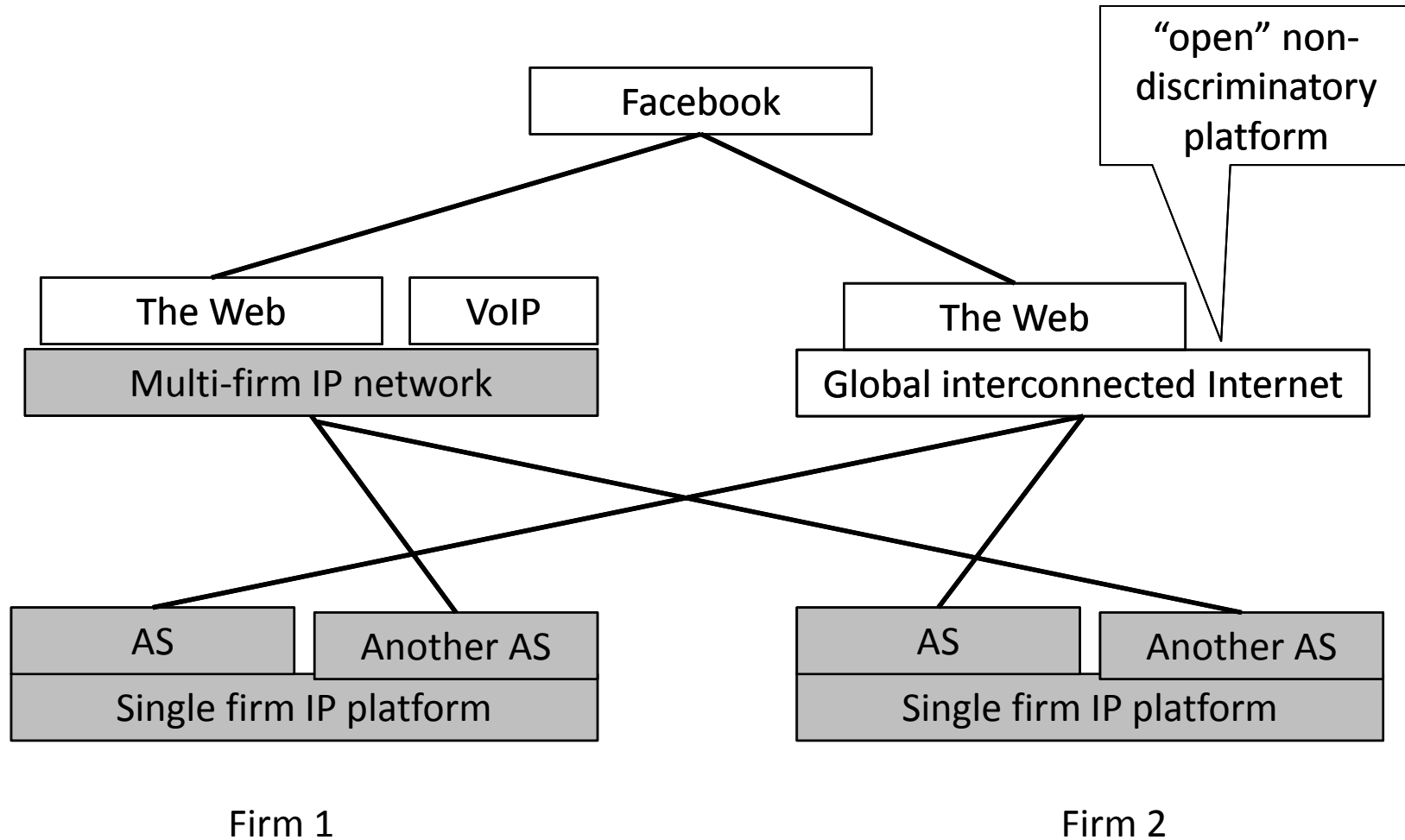
A (more) realistic picture



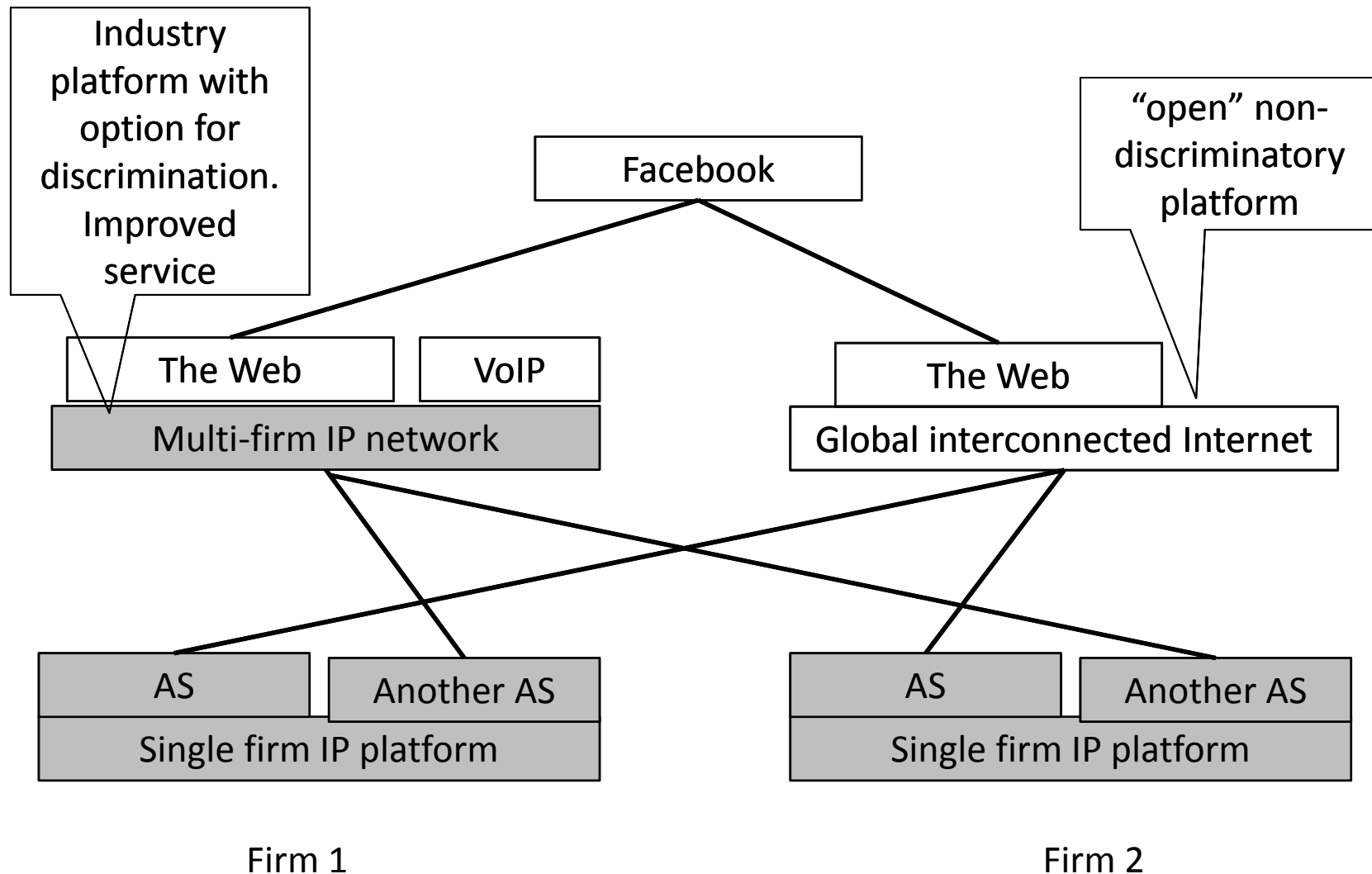
A (more) realistic picture



A (more) realistic picture



A (more) realistic picture



Conclusions—differences in platforms

- Use our matrix of different platforms to tease out key features of a layered model.
 - Internal platforms are probably not a regulatory concern.
 - Production of a multi-firm platform raises issues of market power.
 - Industry platforms may trigger regulatory attention.
 - Several possible goals: protection of complementors, production of public goods, protection of consumers.

Construction and use

Construction:

One firm

Several firms

EXTERNAL (Industry)

Single firm industry
platform
(iPhone, Android,
Microsoft Windows,
Facebook)

Multi-firm industry
platform
(Internet)

Use:

INTERNAL (To
the creators)

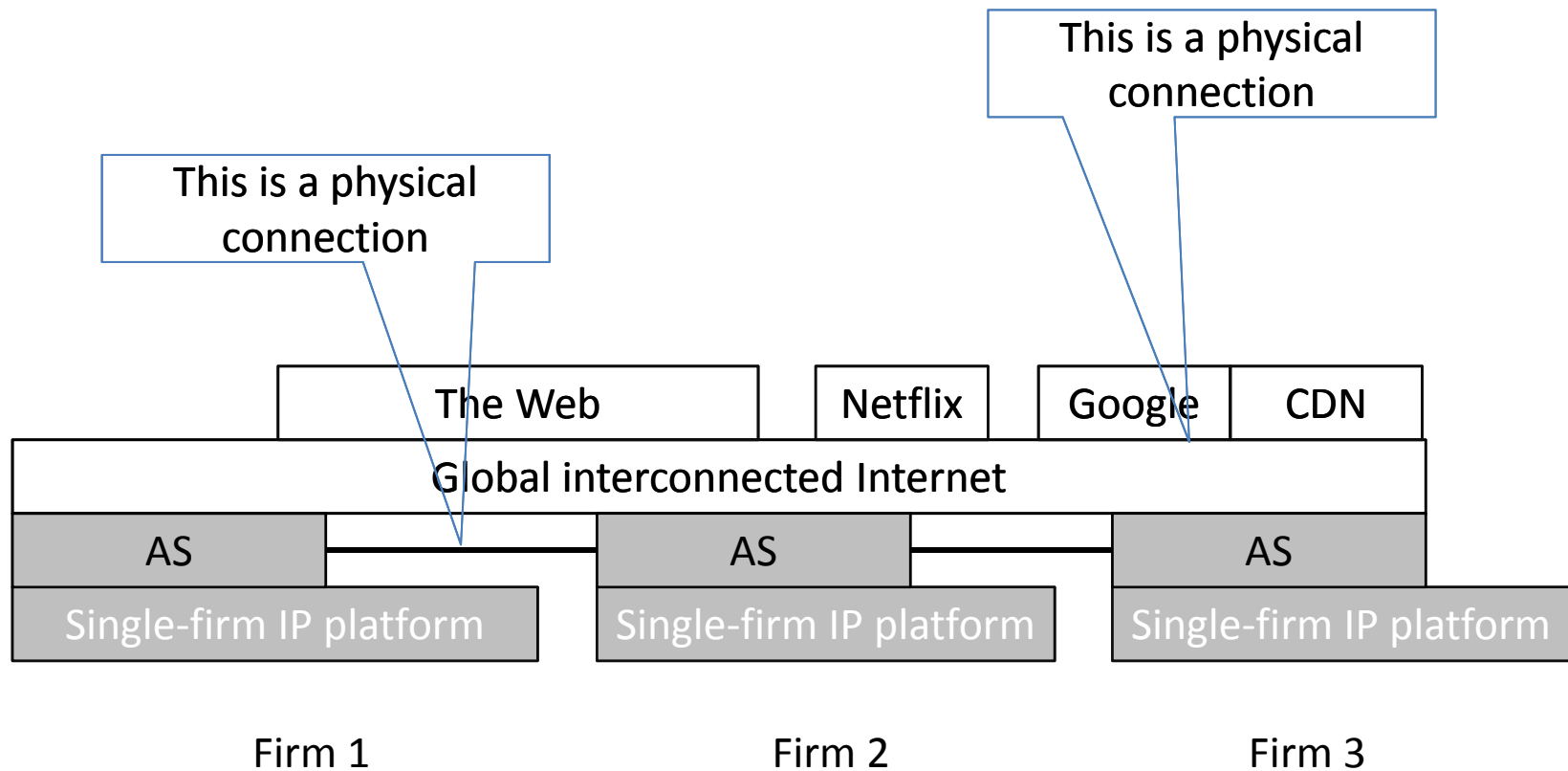
Traditional internal
platform
(TV over HFC, IPTV
over IP)

Internal multi-firm
platform
(VoIP over IP
platform)

Multi-sided platforms (MSP)

- A special case of a multi-sided market.
- The Internet platform is a MSP.
 - Two classes of customers: the actual users and the complementors.
 - Each needs the other.
- Lots of theory about MSPs
 - Essentially, should price each side so as to extract best total value across both sides.
 - Classic example: dating bars.

Two kinds of interconnection



Conclusion—types of interconnection

- Not all points of interconnection are structurally the same.
 - Some are the production of a multi-firm platform.
 - Some are the connection of a platform and a complementor.
- Different analysis will apply to these cases.
 - In particular, a MSP analysis.
 - Different payments models may emerge.

Classic analysis of MSP is *pricing*

- But generalize that:
 - Ask more generally how the treatment of each class of customer influences the overall success of the market.
 - “Two-sided discrimination”
- Example:
 - The Apple iOS App store.
 - Perhaps the Internet would be more appealing to users if the complementors were more regulated.
 - “Kosher Net is a kosher Internet Service Provider (ISP). Kosher Net provides the ideal, rabbinically endorsed, internet experience for businesses, schools, parents, teachers, or anyone who wants or needs control over exposure to undesirable content during the internet experience.”

Conclusions--MSPs

- Use our matrix of classes of platforms to tease out key features of a layered model.
 - Internal platforms are probably not a regulatory concern.
 - Production of a multi-firm platform raises issues of market power.
 - Industry platforms may trigger regulatory attention.
 - May be MSPs. Ask about regulatory objective on each side.
 - To assess impact of discrimination on one participant, must also assess the secondary impact on other participants.

FCC principles

To encourage broadband deployment and preserve and promote the open and inter-connected nature of the public Internet, consumers are entitled to:

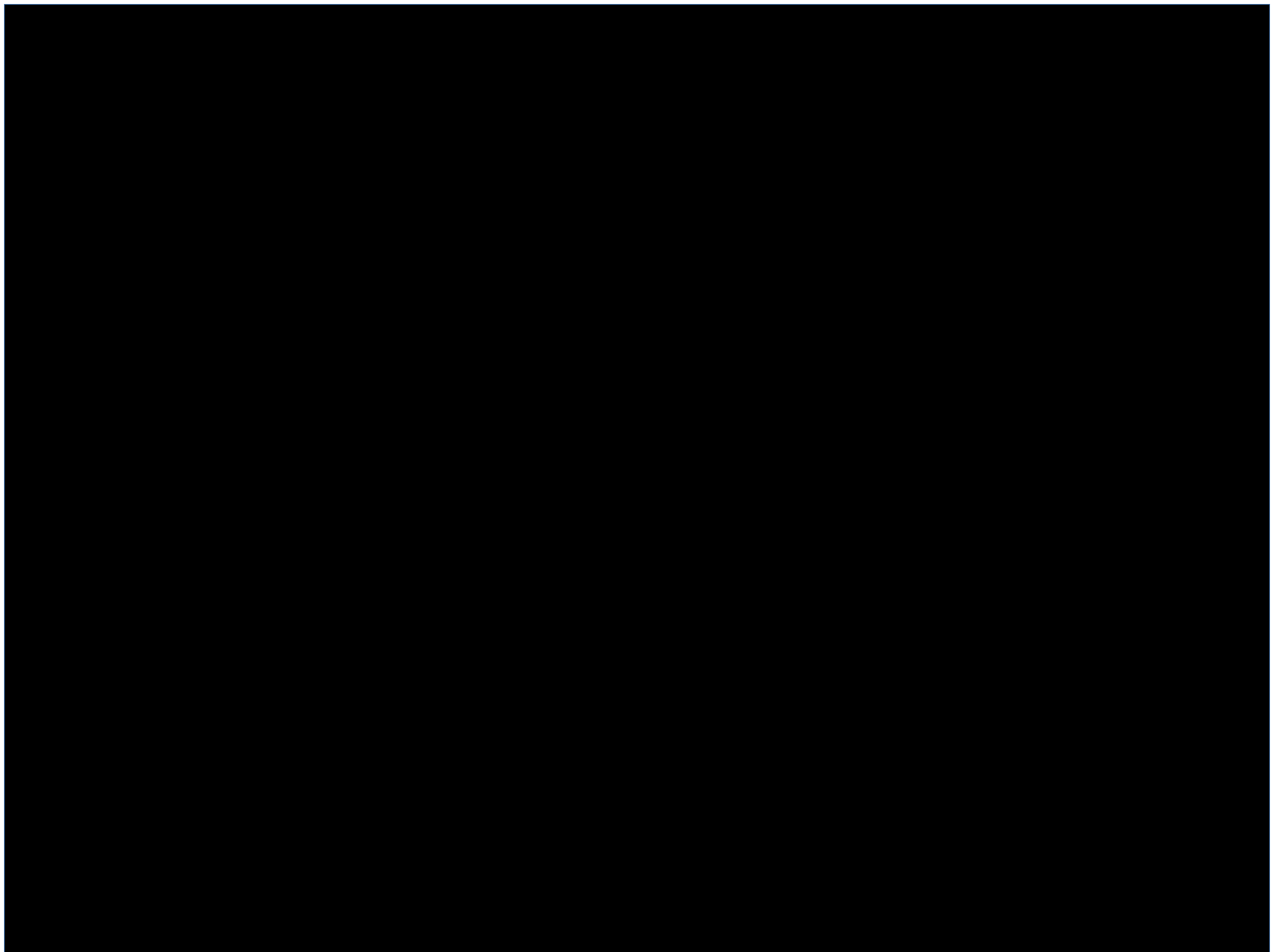
- access the lawful Internet content of their choice.
- run applications and use services of their choice, subject to the needs of law enforcement.
- connect their choice of legal devices that do not harm the network.
- competition among network providers, application and service providers, and content providers.

Degrees of freedom

- The emergence of the single-firm IP platform, and the possible emergence of a multi-firm IP platform (not the Internet) gives the ISP more degrees of freedom.
- It gives the regulator more degrees of freedom as well.

Independence of platforms

- Central question: if regulatory intervention is contemplated, can the different platforms be regulated independently, or do they interact?
 - (See the paper.)
- Hypothesis: different platforms will require unified assessment to the extent they serve the same classes of participants.
 - Does not mean the regulatory outcome would be identical.



What Wheeler said...

- "I am a firm believer in the market," he said. "I think we're also going to see a two-sided market where Netflix might say, 'well, I'll pay in order to make sure that you might receive, my subscriber receives, the best possible transmission of this movie.' I think we want to let those kinds of things evolve. We want to observe what happens from that, and we want to make decisions accordingly, but I go back to the fact that the marketplace is where these decisions ought to be made, and the functionality of a competitive marketplace dictates the degree of regulation."