

Internet Protocol Transition and the Social Contract for the Broadband World

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Feb. 9, 2014

Three observations for discussion

1. The goals of the social contract are unchanged in an IP/broadband world.
2. What *has* changed is the government's ability to uphold its side of the social contract.
3. As a result, the rights and responsibilities of providers and consumers will be very different in an IP/broadband world (for better or worse).

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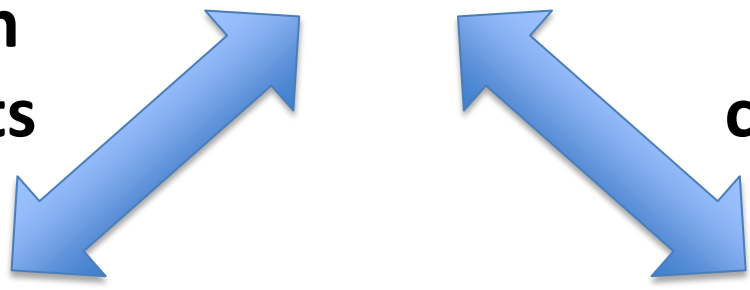
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Consumers

- Individuals
- Households
- Businesses

**Competition
and contracts**

**Social
contract**

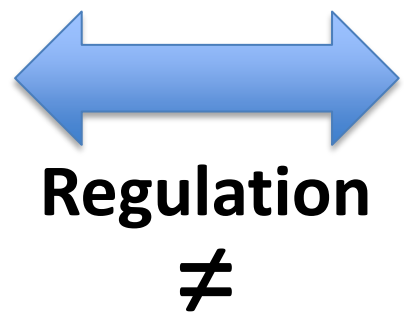


Providers

- Infrastructure
- Platforms
- Applications

Government

Federal (FCC, DOJ/FTC, Congress,...)
State and local



**Social contract in the
absence of industrial policy**

Market incentives to increase value creation

- New revenue opportunities
- Reduced capex and opex
- Reduced competition and regulation



IP transition

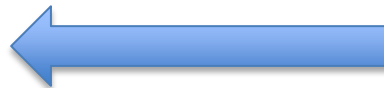
Challenge to meet goals of social contract

- Public safety
- Ubiquitous and affordable access
- Competition
- Consumer protection



Providers

- Infrastructure
- Platforms
- Applications



Regulatory levers

- Change rules
- Change incentives
- Increase competition

Government

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- Limited jurisdiction over relevant providers
 - Platforms
 - Applications
- Limited jurisdiction over potential IP bottlenecks
 - Peering
 - IP-enabled pricing models
- Difficulty translating technology-based regulation
 - Telco vs. cable
 - Special access vs. IP transport
 - Voice roaming vs. data roaming

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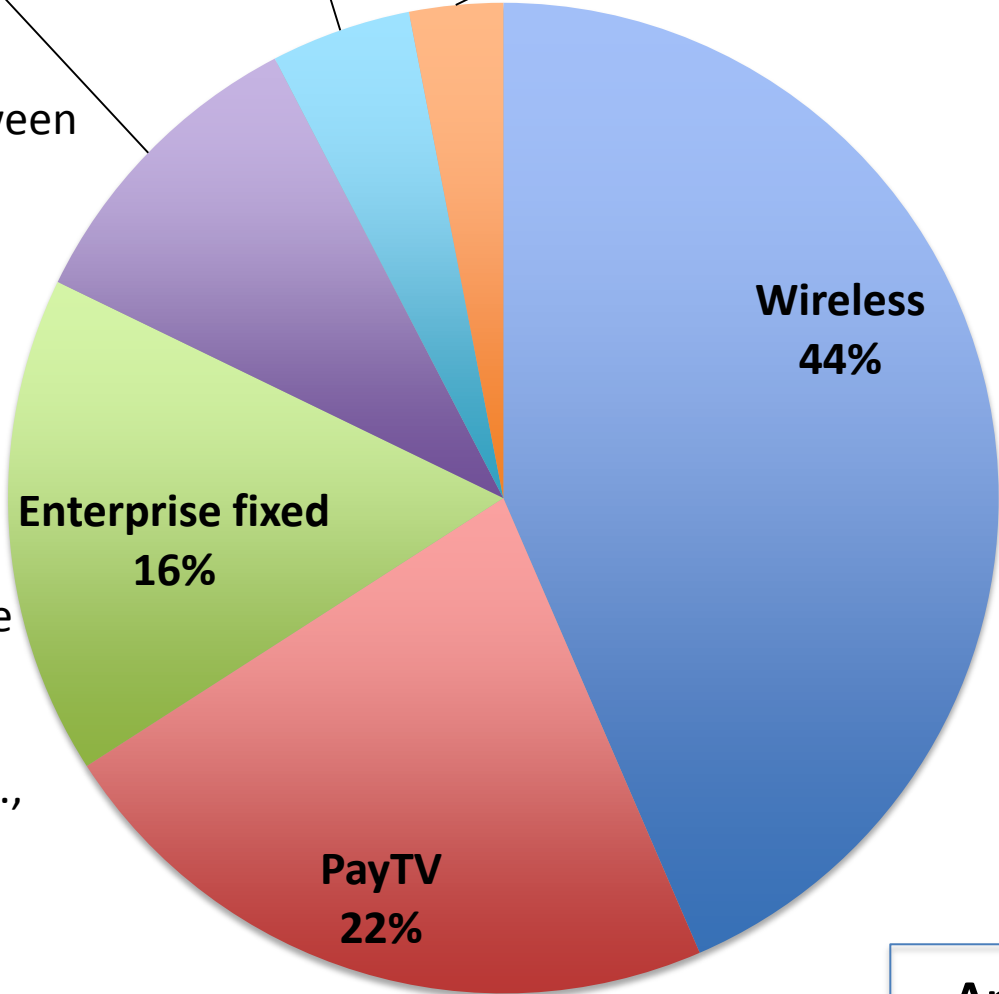
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Residential voice (TDM) 5%	Residential voice (VoIP) 3%
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Residential fixed broadband
10%

- Vertical power between infrastructure/platform/app
- IP-enabled pricing models

- TDM to IP wholesale (e.g., SpA to IP transport)
- Legacy facilities (e.g., CPE, Ethernet over copper)



- TDM to VoLTE
- Voice roaming to data roaming
- Vertical power between infrastructure/platform/app
- IP-enabled pricing models

- Cable: QAM to IP video

Annual revenues (100% ≈ \$400 billion)