

**Briefing to the Ranking Member of the Subcommittee  
on Communications and Technology, Committee on  
Energy and Commerce, House of Representatives**

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**Internet Usage-Based Pricing  
July 29, 2014**

*Information provided in this briefing is based on preliminary observations.*

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# Introduction

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- Access to broadband Internet<sup>1</sup> is increasingly seen as crucial to improving
  - communications,
  - quality of life,
  - commerce, and
  - economic growth and innovation.
- Internet use has increased dramatically and is expected to continue to grow. Stakeholders, including researchers, Internet infrastructure providers, and ISPs, forecast at least 20 percent annual growth for wireline data, and 30 percent annual growth for wireless data between 2013 and 2018.

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<sup>1</sup>Broadband capacity is measured by the number of bits of data transferred per second and include megabits (1 million bits) and gigabits (1 billion bits). FCC defines broadband Internet as having download speeds of at least 4 megabits per second (Mbps). Page 2

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## Introduction: Usage-based pricing

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- Some Internet service providers (ISPs) now charge customers based on data usage, known as usage-based pricing (UBP), as opposed to a flat fee for unlimited Internet data.
  - FCC's Open Internet Advisory Committee considers data allowances a form of UBP. Under UBP, exceeding data allowances could subject customers to alterations in their Internet service including:
    - Additional charges
    - Reduction of access speed ("throttling")
    - Temporary suspension or termination of service
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# Objectives

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You asked us to review usage-based pricing. This briefing addresses:

1. What information is available about the application of usage-based pricing by the nation's largest Internet service providers?
2. What are consumers' opinions of usage-based pricing?
3. What are Internet service provider and expert views about the possible effects of usage-based pricing on Internet customers and the market?

**Important note: this briefing is based on preliminary findings. We will issue the final report in November, 2014.**

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## Scope and Methodology

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- Obtained information from and interviewed the top 13 wireline and four wireless ISPs (to cover 97 percent of the market).
- Wireless market share data from FCC's *Report and Analysis of Competitive Market conditions With Respect to Mobile Wireless, Including Commercial Mobile Services: 16<sup>th</sup> Report*. Wireline market share data from Leichtman Research Group, a private telecommunications industry research firm.<sup>1</sup>
- Interviewed experts including researchers, public interest groups, and industry associations. Determined experts through a review of relevant literature and recommendations from other experts we interviewed.
- Reviewed relevant literature.

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<sup>1</sup>We determined these data to be sufficiently reliable for our purposes.

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## Scope and Methodology (continued)

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- Held a total of 8 focus groups of consumers that access both wireless and wireline broadband Internet services.<sup>1</sup>
  - Locations: Baltimore, MD; Des Moines, IA; Las Vegas, NV; and New York, NY.
  - Participants included self-identified “heavy” and “light” Internet users (based on FCC definitions) and a mix of ages, races, genders, and education and income levels.
  - Each group contained nine to ten participants (77 total).
- Incorporated FCC and ISP technical comments as appropriate.

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<sup>1</sup>We contracted with a private market research firm to assist with screening, recruiting, and hosting the focus groups.

# Objective 1

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**What information is available about the application of usage-based pricing by the nation's largest Internet service providers?**

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## All Four Wireless Providers Apply UBP

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- All four wireless providers we interviewed have adopted UBP plans.
- They offer tiers of data allowances to consumers, where higher data allowance tiers cost more.
- For customers exceeding monthly data allowances:
  - Three ISPs charge overage fees generally \$15 for 1GB of additional data.
  - One ISP throttles—or slows—connection speeds.

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## Seven of 13 Wireline ISPs Apply UBP to Some Extent

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- Three wireline ISPs use UBP with data allowance tiers and impose overage fees on customers who exceed allowance. (Overage fee charges are generally \$10 a month for 50 GB of additional data.)
- Two have data allowance tiers, but do not impose fees for overage.
- One offers a voluntary low-data plan at a discounted rate.
- One is testing UBP approaches that include overage fees in select markets of varying sizes.

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## ISPs said they offer various tools to help UBP consumers

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- Tools to estimate usage based on the consumers' estimate of their monthly e-mails, web pages, and videos.
- Discussions with customer service representatives on the appropriate UBP plan, given their estimated, or prior, usage
- Web-based tools which consumers can use to assess their current usage.
- E-mail, web or text alerts when consumers approach, reach or surpass data allowance.
- Details on data use provided on customers' bills.

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## Consumers May Not be Fully Benefiting from Lower-Cost Options Under UBP

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- One wireless ISP we interviewed said that a small percentage of its customers are on 500MB or smaller data plans. According to Sandvine (an ISP research firm), the median wireless customer in North American uses 102 MB of data a month, suggesting more consumers could benefit from low-data plans.<sup>1</sup>
- One wireline ISP offers a small monthly discount for a 5 GB/month data allowance. However, according to that ISP, only a small percent of its customers have signed up for that option even though almost 20 percent of its customers use 5GB a month or less.

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<sup>1</sup>Sandvine, *Global Internet Phenomena Report 1H 2014*,(Waterloo, Ontario, Canada: May 15, 2014).

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## While Wireline UBP May Affect Few Consumers Now, That Could Grow

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- Most wireline ISPs we interviewed that have data allowance tiers said that less than 10 percent, and usually 1 to 2 percent, of users exceed their data allowances in any given month.
- More consumers could exceed current allowances as data usage continues to grow.
- According to Sandvine, people that seem to use the Internet to replace traditional subscription television service currently consume an average of 212 GB a month, close to many existing data allowances.<sup>1</sup>

## Objective 2

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**What are consumers' opinions of usage-based pricing?**

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## Focus Group Participants Generally Accept Wireless Internet UBP

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- Across all eight focus groups, we found some who selected UBP for their wireless Internet as well as some who identified their wireless data plan as being unlimited.
- Participants expressed confusion regarding wireless data usage including:
  - Uncertainty over plan details, such as their data allowance.
  - Uncertainty whether their plans were subject to throttling.

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## Focus Group Participants Generally Accept Wireless Internet UBP (continued)

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- Focus group participants expressed few serious concerns about wireless UBP; concerns were focused on:
  - Overage fees and
  - Managing data usage of other household members.
- Participants adapted to UBP wireless plans by:
  - Limiting use of streaming video,
  - Changing plans, and
  - Connecting wireless devices to in-home network (Wi-Fi).

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## Focus Group Participants Concerned About Wireline UBP

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- In only two groups did any participants report experience with wireline UBP. However, in all eight groups, participants expressed strong negative reactions to UBP, including concerns about:
  - The importance of the Internet in their lives and the potential effects of data allowances.
  - Having to worry about data usage at home, where they are used to having unlimited access.
  - Concerns that ISPs would use UBP as a way of increasing the amount they charge for Internet service.

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## Focus Group Participants Concerned About Wireline UBP (continued)

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- Focus group participants' negative reactions to UBP were in part driven by confusion about the amount of data used by Internet applications.
  - Some participants were concerned that UBP might require them to limit data-light activities such as online shopping.
  - Some participants believed that leaving social media applications running in the background used large amounts of data.

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## Focus Groups Participants Cited Importance of Internet and Potential Effects of Wireline UBP

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- Across all eight groups, participants discussed the importance of the Internet in their lives.
- Some participants expressing strong negative reactions to UBP cited the concern that UBP would disproportionately impact certain populations such as
  - students,
  - telecommuters, and
  - those with lower socio-economic status.

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## Focus Group Participants Used to Not Considering Wireline Data Usage

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- Participants were accustomed to unlimited wireline Internet access at home and prefer not having to maintain awareness about data consumption.
- Some participants said that multi-person households, each with multiple devices, would pose challenges to them in tracking Internet data consumption.
- In all eight groups, participants said that they frequently connect their wireless devices to their in-home Wi-Fi without worrying about data usage.

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## Some Focus Group Participants Noted Potential Benefits of Wireline UBP

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- Some participants in each group expressed positive reactions, noting the potential benefit of more pricing options.
  - Some focus group participants liked the idea of paying less money for less data.
  - Some focus group participants thought it was more fair to pay only for the data used – akin to utilities, such as water or electricity.

## Objective 3

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**What are Internet service provider and expert views about the possible effects of usage-based pricing on Internet customers and the market?**

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## Some Experts and ISPs Believe UBP Offers Potential Benefits

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- ISPs could provide more Internet plan options to meet individual needs.
  - People that use more data would pay more.
  - Low-price, low-data plans could encourage some without Internet to subscribe.
- UBP can generate more revenues for ISPs to help fund network capacity upgrades as data use grows
- Some wireless ISPs told us they use UBP to manage congestion; wireline ISPs said that congestion is not currently a problem.

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## Some Experts Believe UBP Has Potential Drawbacks

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- Some experts believe UBP may be unnecessary because the marginal costs of data delivery are very low, heavier users impose limited additional costs to ISPs.
- UBP may increase prices for some consumers and limit their Internet use, particularly for data-heavy content and applications.
- As a result, UBP could limit innovation and development of data-heavy applications.

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## Limited Choice Of Wireline ISPs Could Limit Some Potential Benefits of UBP

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- According to FCC, 54% of households are in census tracts that have more than two wireline ISPs with connection speed of at least 6 Mbps.
- Some focus group participants said they would look to switch providers if faced with UBP but cited a lack of provider choice.
- According to some experts we interviewed, this limited choice among wireline ISPs could provide less incentive for ISPs to offer more options in data plans to consumers.

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## Confusion Over Data Could Result in Mixed Effects for Consumers

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- Some focus group participants thought they were heavy data users, yet primarily used low-data applications, such as online shopping.
- “Hidden” data uses—such as automatic updates—could represent as much as 30 percent of data use and growing (Sevcik, *NetForecast*, June 2012).
- Our review of ISP tools shows varying data-use estimates for similar applications.
- As a result, some consumers may incorrectly estimate their data needs and either buy too much data or face overage charges.

## Next Steps and Questions

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- We plan to issue our final report on UBP in November.
- I will be happy to answer questions.



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Katherine Siggerud, Managing Director, [siggerudk@gao.gov](mailto:siggerudk@gao.gov)  
(202) 512-4400, U.S. Government Accountability Office  
441 G Street, NW, Room 7125, Washington, DC 20548

## **Public Affairs**

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(202) 512-4800, U.S. Government Accountability Office  
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