



# Moving Toward Usage-Based Pricing

## A Connected Life Market Watch Perspective

**Cisco Internet Business Solutions Group**

**March 2012**

# Agenda

- Overview
- Usage-based pricing in the United States and Canada
- Potential benefits of usage-based pricing
- Examining usage-based pricing offers
- Usage-based pricing and video
- Lessons learned from mobile
- Considerations for service providers

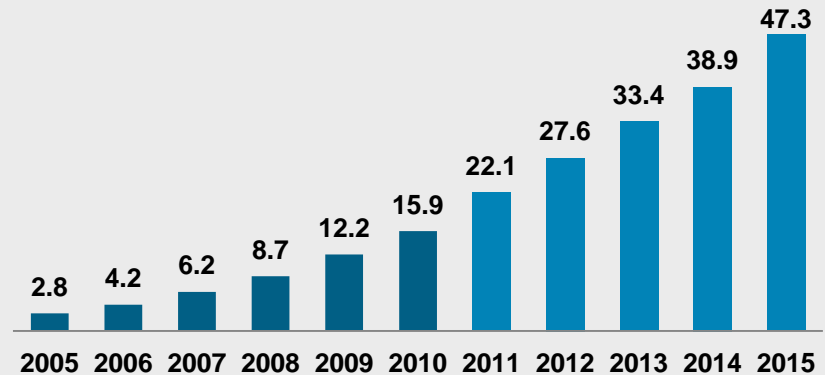


# 1 Overview

# Current Situation for Service Providers

- Consumer use and Internet traffic are skyrocketing
- Fixed broadband ARPU has stagnated
- Usage-based pricing may provide SPs with tool to manage traffic and spur new revenue
- However, SPs must proceed carefully

Monthly Internet Consumption per U.S. User  
(in GB)



Source: Cisco Visual Networking Index (VNI) Global Forecast, 2011

North American Cable Broadband ARPU



Base: Range between 8 and 13 companies reporting

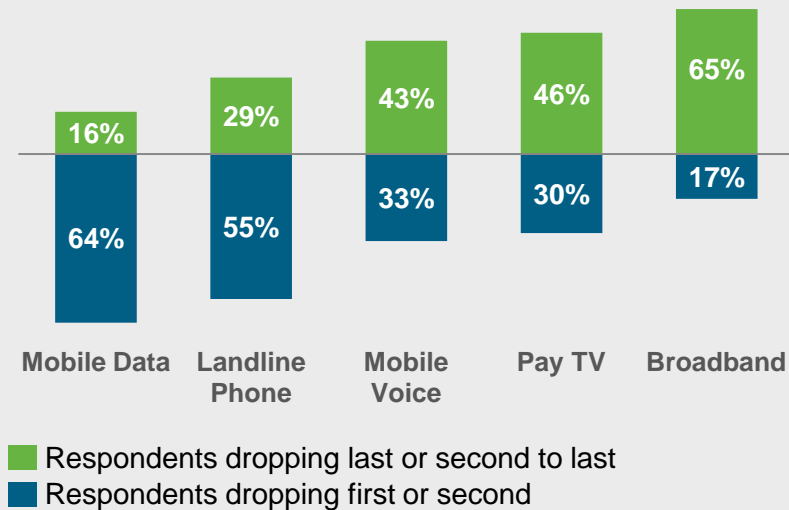
Source: Infonetics, Worldwide Service Provider Update, September 2010

# Usage-Based Pricing Can Be a Tool To Catalyze New Revenue

Consumers are using the Internet more and are protective of their broadband access

Usage-based pricing ties pricing to the value consumers receive—their use of the Internet

Which services would you cut first if you had to reduce expenses?



Source: Cisco IBSG, 2011 Base: U.S. broadband consumers

“Data revenue growth was 3.8% for our residential services business. . . driven through an increase in Internet ARPU of 3.3%—**almost all of that increase now coming from usage-based billing** as the demand for Internet use explodes.”



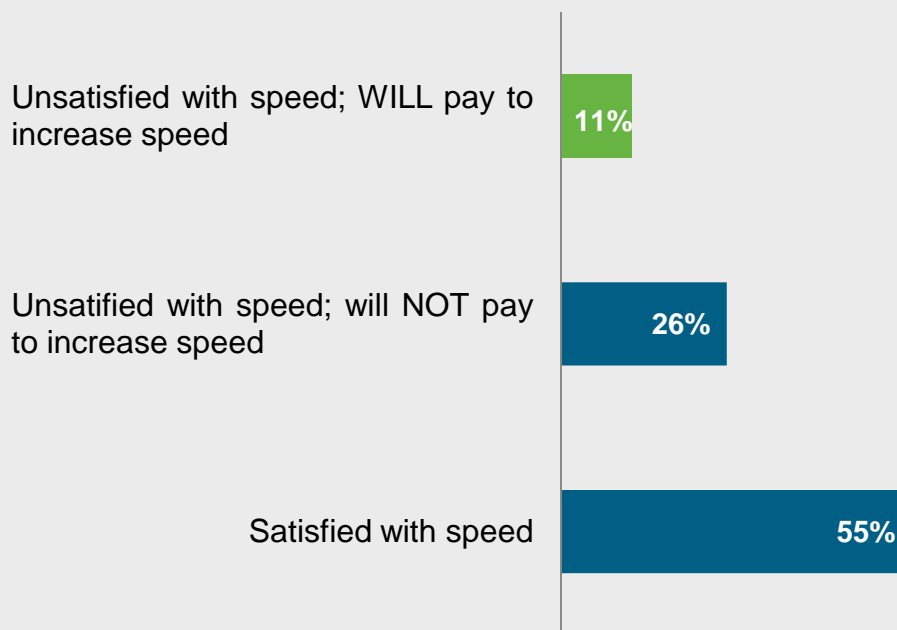
George Cope  
CEO, Bell Canada Enterprises  
August 2010

# Consumer Spending for Fixed Broadband Access Has Stagnated

- SPs' focus on bundling and speed has molded consumers' perception of broadband value
  - 92% of fixed broadband in U. S. is provided as part of a bundle
  - Speed is second in importance only to price as a purchase consideration when choosing a broadband provider
- However, speed is no longer a factor that can drive ARPU growth

## Attitude Toward Speed of Home Internet Connection

*Percent agreeing with each statement*



Consumers could select all that apply. Total does not equal 100%.

Sources: "The Future of TV and Consumer Expectations," Cisco/Forrester, 2010; Cisco IBSG, 2012

Base: U.K. online consumers

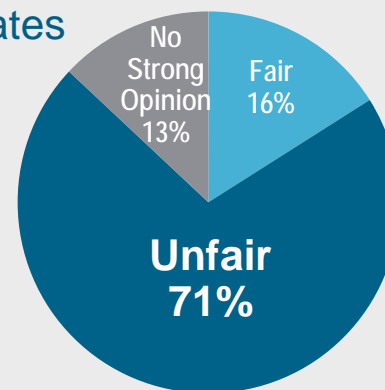
# Proceed Carefully: Consumers and Regulators Are Wary

- Public outcry has resulted in significant regulatory and market actions:
  - 2008:** U.S. FCC orders Comcast to halt throttling
  - 2009:** Time Warner Cable revokes its experimental usage caps
  - 2011:** Canadian Radio-television and Telecommunications Commission (CRTC) is re-examining all usage-based policies in response to consumer outrage sparked by January 2011 CRTC decision

Source: Cisco IBSG Connected Life Market Watch, 2011

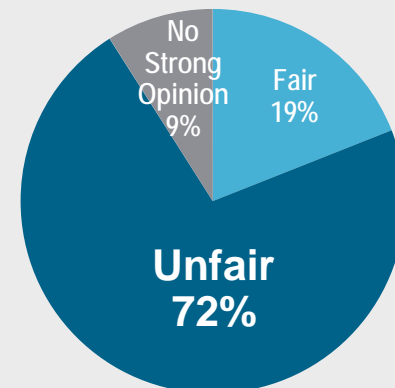
## Consumer Perception of Usage-Based Pricing

### United States



Base: Broadband consumers

### Canada

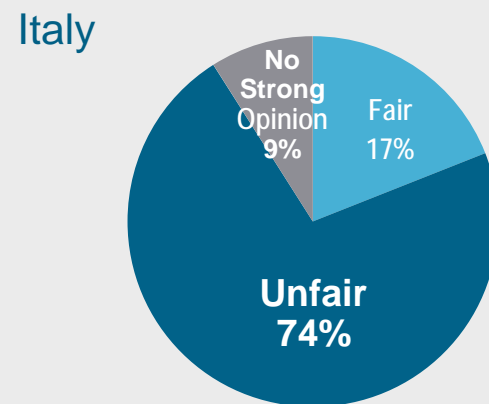
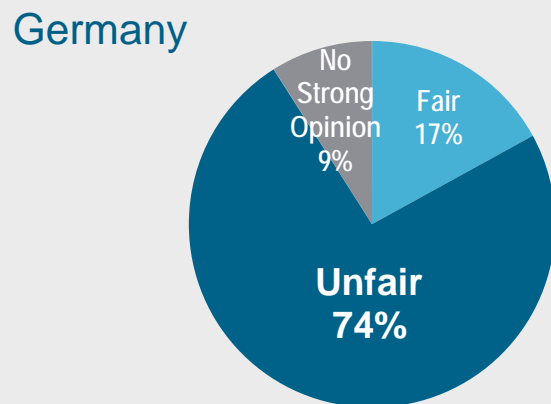
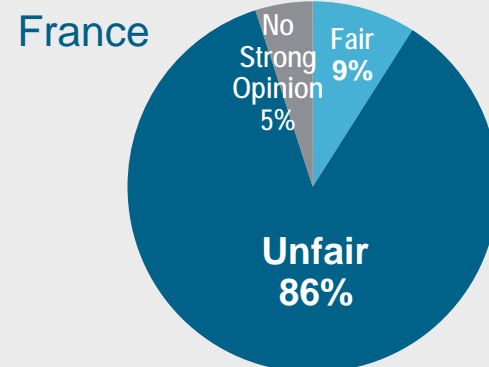
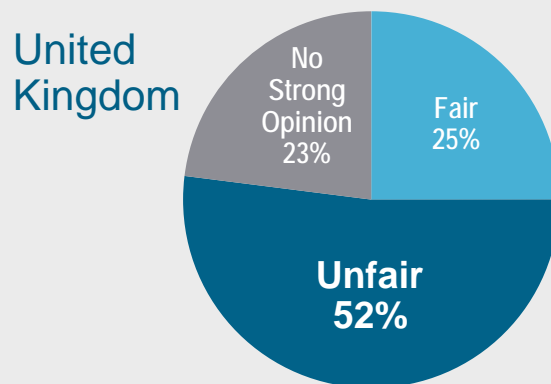


Base: Broadband consumers

# Proceed Carefully: Consumers in Western Europe Are Also Wary

While broadband consumers in the United Kingdom are more likely to accept usage-based pricing, the majority of Western Europeans still consider it unfair

## Consumer Perception of Usage-Based Pricing



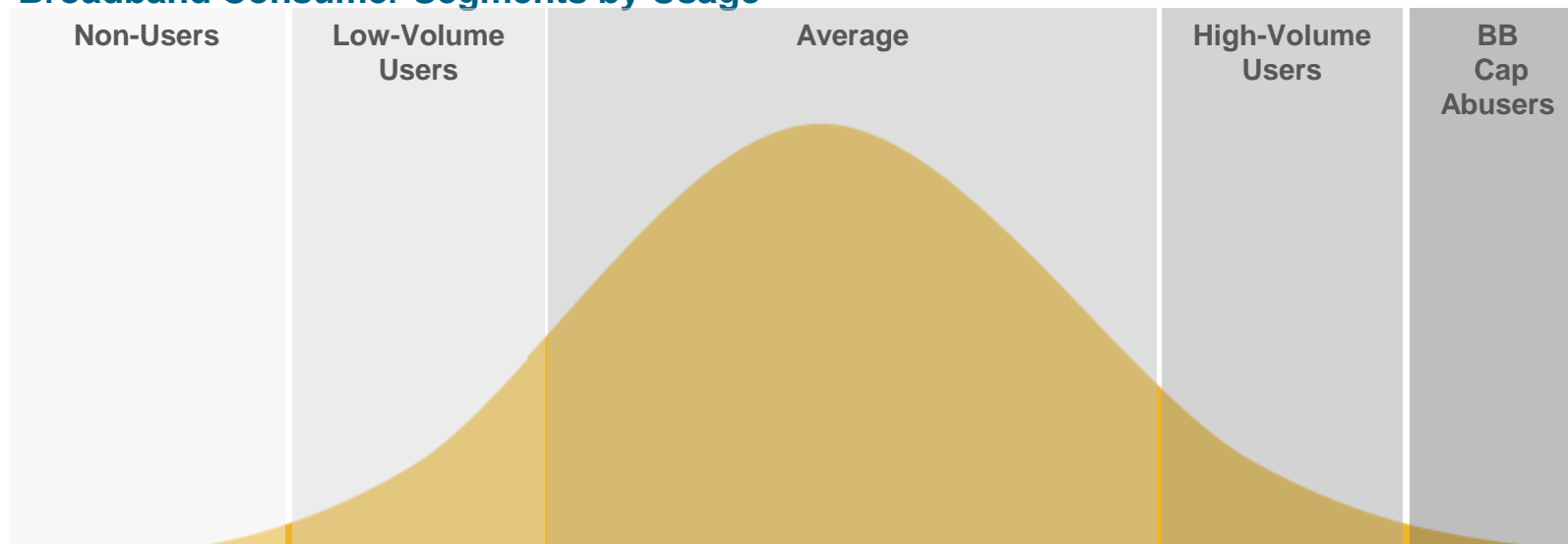
Source: Cisco IBSG Connected Life Market Watch, 2011

Base: Broadband consumers



# Usage-Based Pricing Can Support Both SP and Consumer Objectives

## Broadband Consumer Segments by Usage



## Consumer Concerns

Impact to Consumer	Lower barriers to adoption	Some consumers will save money	No disruption for most users	Some consumers will spend more	Preserve experience for whole and enable access for largest users
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## Service Provider Concerns

Impact to Revenue	Gain new adopters	<p>Initially some revenue increase due to highest tiers</p> <p>Greatest impact over time as consumers self-migrate to higher tiers</p>			
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Source: Cisco IBSG, 2012

# Usage-Based Pricing Strategies Support SPs' Overall Strategies

- SPs must tie consumer value to consumer broadband use or risk commoditization
- Usage-based pricing can be a flexible tool in every SP's toolkit, supporting varied SP strategies:
  - For SPs focused on **maximizing revenue** from existing assets, usage-based pricing optimizes ARPU as consumers move to higher-priced tiers
  - For SPs who see **OTTs as potential partners**, usage based-pricing creates a need for third parties to partner with SPs to eliminate usage concerns for their end users
  - For SPs who see **OTTs as direct competition**, usage-based pricing provides SPs with a lever they can use to curtail OTT activity
- Usage-based pricing enables SPs to align their customers' perception of value more closely with the underlying broadband service delivered

Source: Cisco IBSG, 2012



## 2

# Usage-Based Pricing in the United States & Canada

# U.S. Broadband Providers Move Toward Usage-Based Pricing

	Throttling	Usage Caps	Usage Tiers
<b>Timeline</b>	<b>2007 - 2008</b>	<b>2008 →</b>	<b>2011 →</b>
<b>Impact</b>	Consumers' experience degraded if they over-used the service	Customers' service terminated for using too much of the service; revenue opportunity lost	Matches price paid to most valued factor—volume of usage—providing reasonable options for heavy- to low-volume users
<b>Market Activity</b>	<ul style="list-style-type: none"> <li>Comcast began throttling heavy P2P users</li> <li>Following <b>public outcry</b>, FCC investigated and ordered Comcast to cease throttling</li> </ul>	<ul style="list-style-type: none"> <li>Majority of U.S. ISPs have usage caps. Comcast instituted 250-GB cap in 2008. Other ISPs followed suit, including AT&amp;T, with 150-GB cap for DSL and 250-GB cap for U-verse. 56% of consumers covered by a cap.</li> </ul>	<ul style="list-style-type: none"> <li>Time Warner Cable has invested in capability to enable usage-based price and is considering it</li> <li>FCC chairman supports usage-based pricing, but FCC is divided on the issue and there are questions about its legal authority here</li> </ul>
<b>Key Lessons Learned</b>	<ul style="list-style-type: none"> <li>Stay clear of practices that discriminate against users or Internet destinations; can violate net neutrality.</li> <li>Minimize consumer disruption and confusion. Avoid rollouts that differ by territory, or consumption caps that vary significantly from consumers' usage behavior.</li> <li>Consumers will need tools to accurately estimate consumption.</li> </ul>		

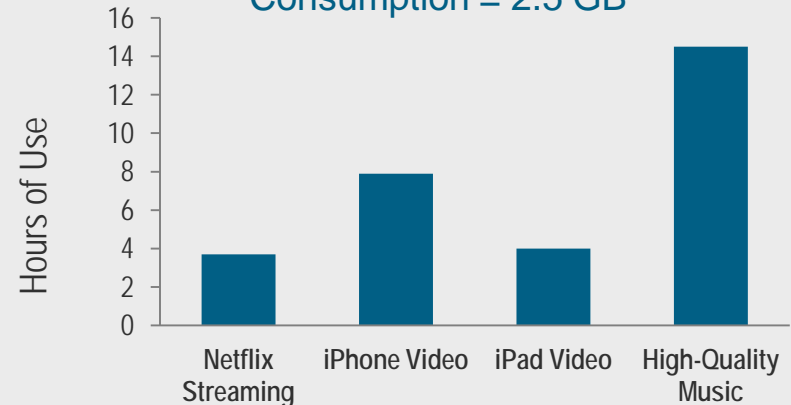
Source: Cisco IBSG, 2012

# Lack of Understanding Likely Fuels Poor Consumer Perception

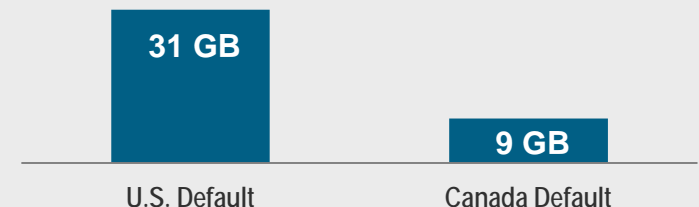
- Consumption is a sophisticated calculation; it will take time, education, and tools for consumers to feel comfortable estimating consumption
- Actual consumption will vary based on **many factors** (mostly technical), fueling consumer distrust and frustration:
  - File type (email vs. video)
  - File format (HD vs. SD)
  - Time x Network Throughput (time alone will not provide clear estimate)
  - Compression standards (such as Codec)

Source: Cisco IBSG, 2012; Public Knowledge, 2011

**Consumption Varies by Device & Service**  
Consumption = 2.5 GB



**Consumption Varies by Providers' Content-Management Policies**  
Consumption for 30 hours of Netflix viewing



# U.S. Broadband Providers Inch Toward Tiered Pricing

## Example



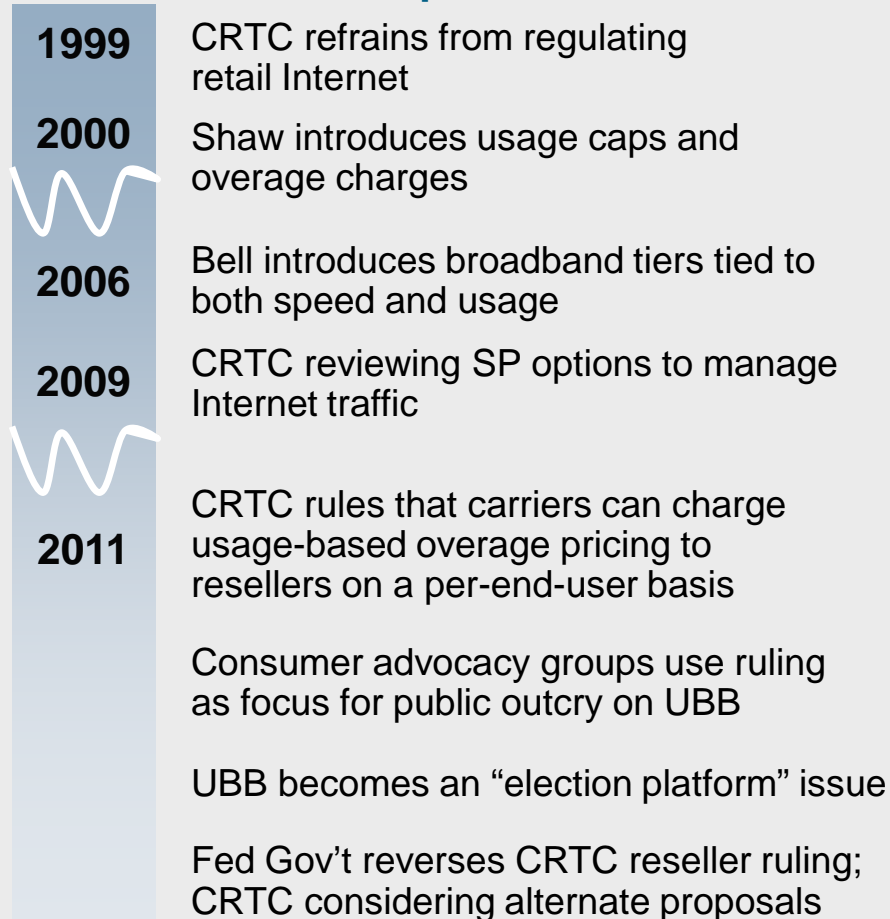
- Introducing consumption tiers with speed-tier pricing
  - Positioned to drive consumers toward bundle
  - Fair-use policy sets “excessive usage” limits on economy / standard packages
  - Users who exceed their plan’s data allocation will be charged \$0.50 per additional gigabyte
  - Provides tools to estimate data usage, as well as ability to monitor consumption each month
- Tier 2 integrated service provider (phone, TV, Internet)
  - Operating in 19 states
  - 720,000 customers

	Economy	Standard	Preferred
Price	\$20	\$50	<i>Bundle pricing</i>
Download Speed	1.5 Mbps	5 Mbps	50 Mbps
Consumption	1 GB	3 GB*	50 GB

Source: [www.cableone.net/FYH/Pages/packagebundles.aspx](http://www.cableone.net/FYH/Pages/packagebundles.aspx), December 2011

# Usage-Based Pricing in Canada

## Timeline of Usage-Based Pricing Developments



A vertical timeline with a light blue background and a white wavy line on the left side. The years 1999, 2000, 2006, 2009, and 2011 are listed on the left, with corresponding events on the right.

<b>1999</b>	CRTC refrains from regulating retail Internet
<b>2000</b>	Shaw introduces usage caps and overage charges
<b>2006</b>	Bell introduces broadband tiers tied to both speed and usage
<b>2009</b>	CRTC reviewing SP options to manage Internet traffic
<b>2011</b>	<p>CRTC rules that carriers can charge usage-based overage pricing to resellers on a per-end-user basis</p> <p>Consumer advocacy groups use ruling as focus for public outcry on UBB</p> <p>UBB becomes an “election platform” issue</p> <p>Fed Gov’t reverses CRTC reseller ruling; CRTC considering alternate proposals</p>

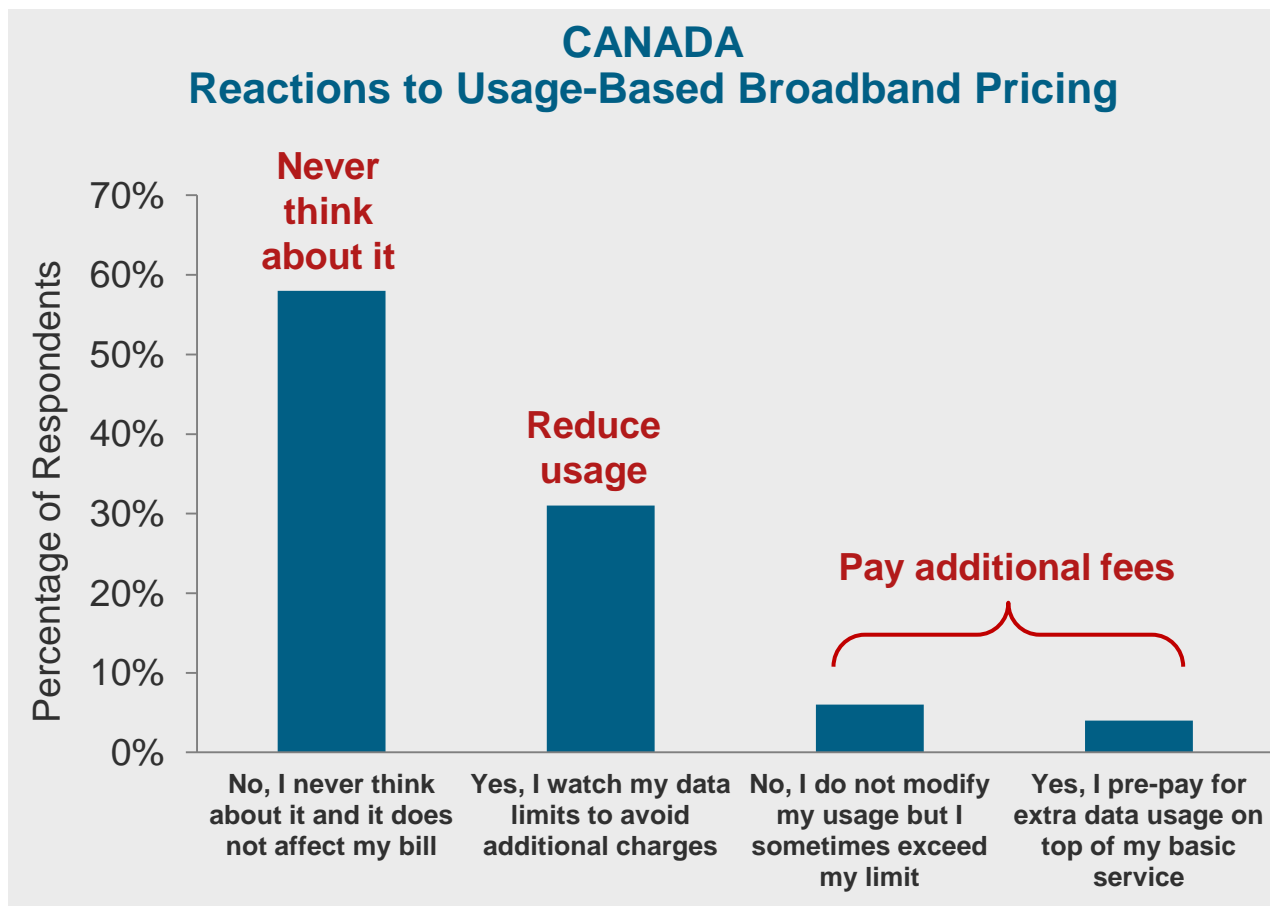
## Lessons Learned

- Despite consumer attitude, new revenue can be gained
- Usage can provide a better link to consumer value than speed
- Match consumers’ expectations and allow them to self-upgrade
- To minimize regulatory scrutiny, avoid cost-based arguments

Source: Cisco IBSG, 2012

# Canada: Response to Usage-Based Pricing Dominated by “Do Nothing”

72% of Canadians See Usage-Based Pricing as Unfair, Yet....



- 58% of consumers never think about usage, and they don't incur additional charges
- One-third reduce their use to avoid additional fees
- Only 10% pay additional fees

Source: Cisco IBSG Connected Life Market Watch, 2011

Base: Canada broadband consumers



# Example from Canadian Market: Rogers Tiered Pricing



Package	Download / Upload Speed	Email Addresses	Additional Usage Charge	Monthly Fee	Monthly Usage
Ultra-Lite	500 kbps / 254 kbps	3	\$5.00 / GB	\$27.99	2 GB
Lite	3 Mbps / 254 kbps	5	\$4.00 / GB	\$35.99	15 GB
Express	10 Mbps / 512 kbps	9	\$2.00 / GB	\$46.99	60 GB
Extreme	15 Mbps / 512 kbps	9	\$1.50 / GB	\$59.99	80 GB
Extreme Plus	25 Mbps / 1 Mbps	9	\$1.25 / GB	\$69.99	125 GB
Ultimate	50 Mbps / 2 Mbps	9	\$0.50 / GB	\$99.99	175 GB

- Consumption tiers tied to existing speed tier
- Matches consumers' expectation & existing behavior
- No unlimited plan currently available
- Consumers can self-migrate to higher-tier plans as their consumption increases

Source: Rogers company website, 2011

# Usage-Based Pricing Varies Widely Among Canadian SPs

## Summary of Fixed Broadband Packages at Major Canadian SPs

Carrier	Low	Medium	High
Bell (QC)	\$27.95 / month 1 GB / month 500 kbps / 500 kbps \$2.50 / GB over	\$47.95 / month 60 GB / month 7 Mbps / 1 Mbps \$2.50 / GB over	\$72.95 / month 100 GB / month 25 Mbps / 7 Mbps \$2.50 / GB over
Bell (ON)	\$36.95 / month 2 GB / month 2 Mbps / 800 kbps \$2.50 / GB over	\$46.95 / month 25 GB / month 6 Mbps / 1 Mbps \$2 / GB over	\$76.95 / month 75 GB / month 25 Mbps / 7 Mbps \$1 / GB over
Rogers (ON)	\$27.99 / month 2 GB / month 500 kbps / 256 kbps \$5 / GB over	\$46.99 / month 60 GB / month 12 Mbps / 512 kbps \$2 / GB over	\$99.99 / month 250 GB / month 50 Mbps / 2 Mbps \$0.50 / GB over
Telus (West)	\$30 / month 30 GB / month 1 Mbps / 256 kbps \$2 / GB over	\$49 / month 250 GB / month 15 Mbps / 1 Mbps \$2 / GB over	\$54 / month 500 GB / month 25 Mbps / 2.5 Mbps \$2 / GB over
Shaw (West)	\$37 / month 30 GB / month 1 Mbps / 256 kbps	\$49 / month 125 GB / month 7.5 Mbps / 512 kbps	\$74.90 / month Unlimited 7.5 Mbps / 512 Mbps

- Consumers and regulators are re-examining SP approach to usage-based pricing
- SPs introduced usage tiers for each speed tier
- **Wide variance** in pricing per GB has driven CRTC and public skepticism
- CRTC is questioning the relationship between the cost to carry traffic and usage-based pricing

Source: Company websites, 2011

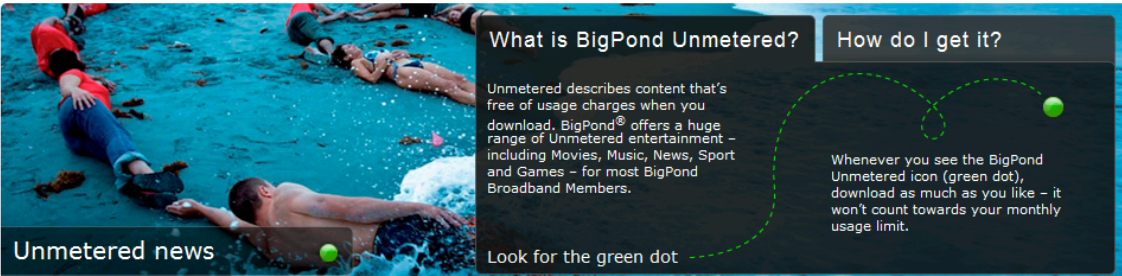
Note: All prices are quoted as unbundled, without any promotion pricing

# Usage-Based Pricing Around the World: Sample Pricing, Telstra (Australia)

## Telstra Home Broadband Plans, November 2011

Plan	Usage Allowance	Cost per Month
ADSL / Cable Elite: Up to 20 / 1 Mbps ADSL, 30 Mbps / 1 Mbps Cable		
BigPond Elite® 5 GB Liberty	5 GB (then slowed to 64 kbps)	From \$29.95
BigPond Elite® 50 GB Liberty	50 GB (then slowed to 64 kbps)	From \$49.95
BigPond Elite® 200 GB Liberty	200 GB (then slowed to 256 kbps)	From \$69.95
BigPond Elite® 500 GB Liberty	500 GB (then slowed to 256 kbps)	From \$89.95

### BIGPOND UNMETERED



**What is BigPond Unmetered?**

Unmetered describes content that's free of usage charges when you download. BigPond® offers a huge range of Unmetered entertainment – including Movies, Music, News, Sport and Games – for most BigPond Broadband Members.

**How do I get it?**

Whenever you see the BigPond Unmetered icon (green dot), download as much as you like – it won't count towards your monthly usage limit.

Look for the green dot

Unmetered news

- Tiered pricing
  - From 5 GB to 500 GB
  - When users exceed consumption limit, Telstra throttles the speed
- App-based differentiation
  - Selected content, including games, movies, news, music and sports, is **exempt from bandwidth limit**

Source: Telstra website, 2011 (<http://go.bigpond.com/broadband/>)

# Usage-Based Pricing Around the World: Sample Pricing, BT, O<sub>2</sub> (United Kingdom)

BT	Speed	Usage	Included Calling	Price
Broadband & Evening / Weekend	20 MB	10 GB	Weekend & Evening	£13
More Broadband	20 MB	40 GB	Weekend	£18
Unlimited Broadband	20 MB	Unlimited	Anytime	£28



## Exceeding the limit?

- Consumers receive email notice when they reach 80 percent of usage allowance
- After second month of excess consumption, additional usage is charged at £5 per 5 GB
- BT provides a monitoring tool, online support, and ability to self-upgrade to higher tiers

O <sub>2</sub>	Download Speed	Upload Speed	Usage	Web Texts	Price
Basics	20 MB	1.3 MB	20 GB	200	£13.50
All Rounder	20 MB	1.3 MB	Unlimited	200	£17.50
The Works	20 MB	2.5 MB	Unlimited	500	£26

O<sub>2</sub>

## Exceeding the limit?

- Emphasize that fair-use policy exists, even for unlimited
- Consumers will be notified if they approach or exceed limit
- O<sub>2</sub> may terminate service

Source: Company websites, 2011



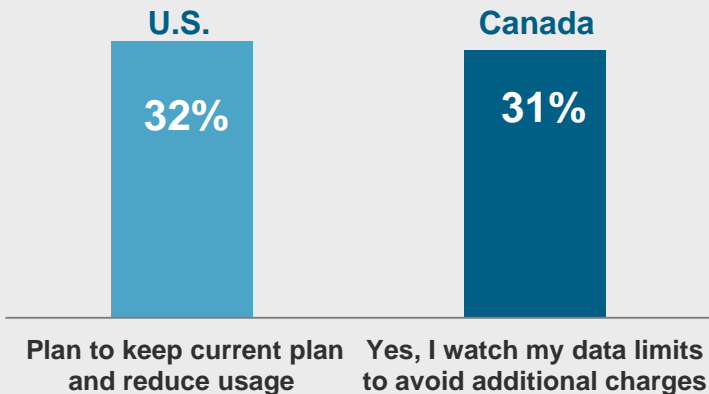
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## **Potential Benefits of Usage-Based Pricing**

# Usage-Based Pricing Can Curtail Traffic Explosion for Some Customers

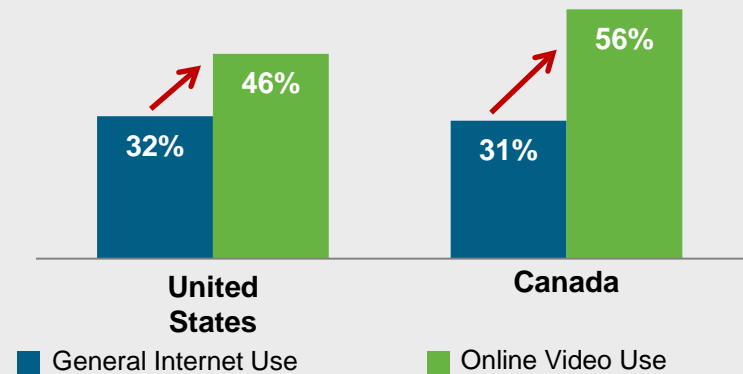
## Consumers Curbing Internet Use

Percentage of respondents



## Consumers Curbing Internet Video Use

Percentage of respondents



- When usage-based pricing is introduced, **one-third** of customers will reduce their Internet usage
  - Actual behavior maps closely to anticipated reaction
- **About half of consumers** will reduce their online video watching in response to usage-based pricing
  - In Canada, where online video is well-established and where usage-based pricing is already implemented, consumers are likely to cut use

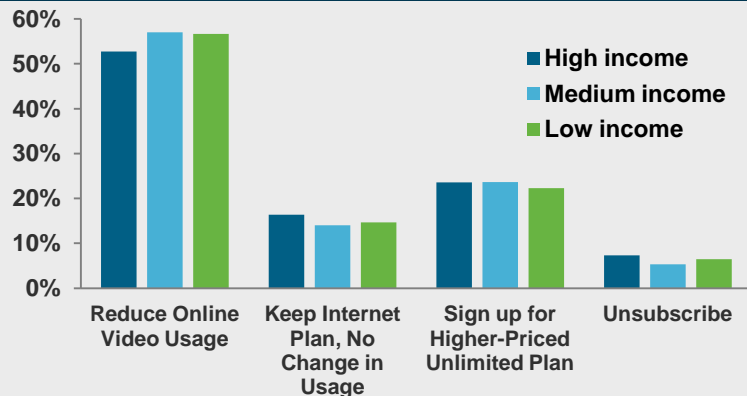
Source: Cisco IBSG Connected Life Market Watch, 2011

Base: U.S. and Canada broadband consumers

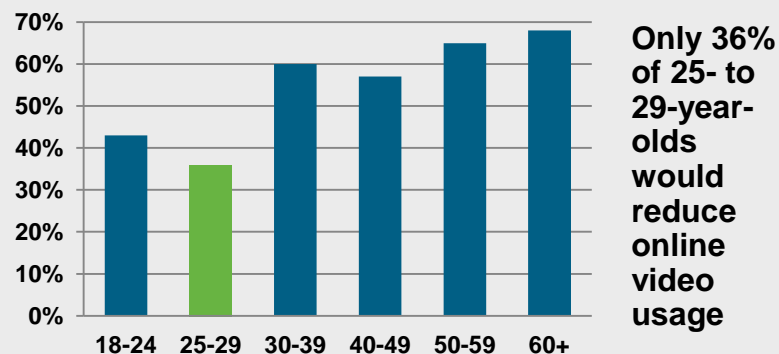
# Usage-Based Pricing Can Guide Core Segments Away from Online Video

**In Canada,** impact of usage-based pricing on online video reduction is...

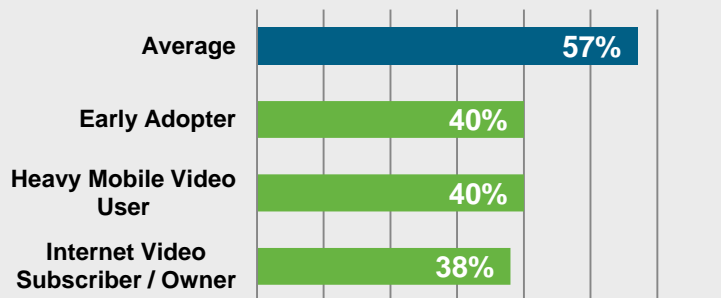
## Not correlated with income



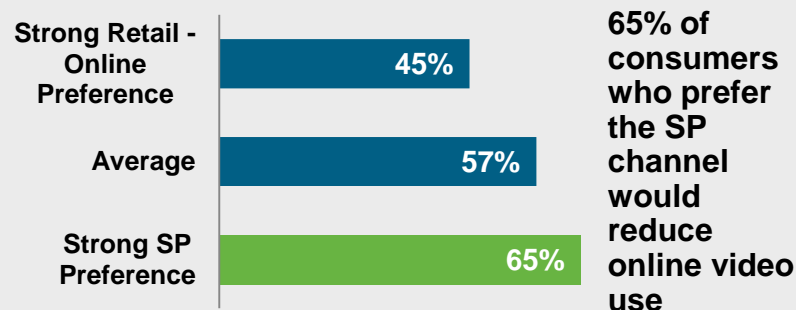
## Correlated with age



## Correlated with technology-related behavior



## Correlated with strong SP preference



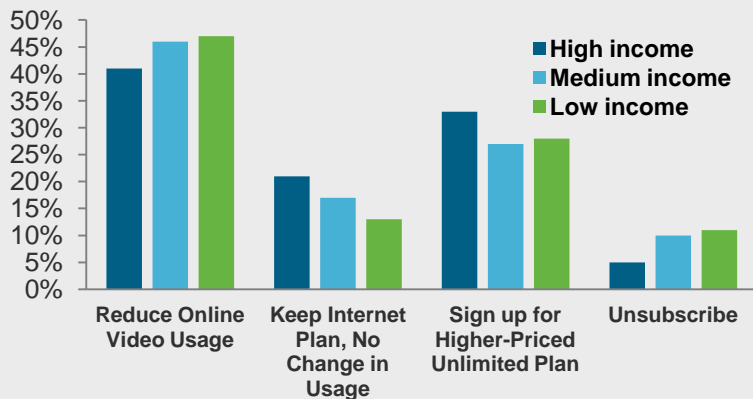
**To maximize broadband revenue, SPs should target young, tech-savvy users**

Source: Cisco IBSG Connected Life Market Watch, 2011

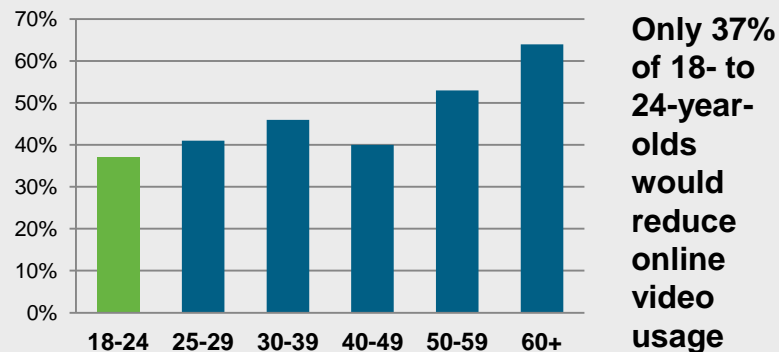
# Usage-Based Pricing Can Guide Core Segments Away from Online Video

**In the United States**, impact of usage-based pricing on online video reduction is...

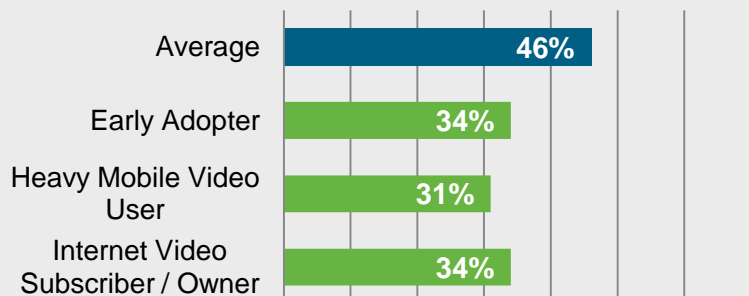
## Only slightly correlated with income



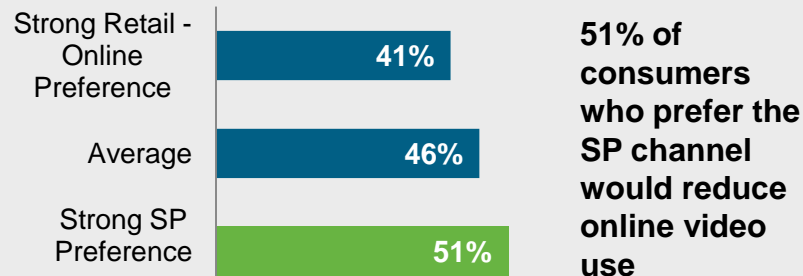
## Correlated with age



## Correlated with technology-related behavior



## Correlated with strong SP preference



Source: Cisco IBSG Connected Life Market Watch, 2011



# Usage-Based Pricing Could Unlock Additional Spending

- 41% say they would pay more for unlimited broadband access if usage-based pricing is introduced in the United States
- However, only 10% are actually spending more since the introduction of usage-based pricing in Canada
- Similar percentages of consumers in the United States (26%) and Canada (22%) would pay more for broadband in order to support their online video use

## Revenue Uplift Potential for Usage-Based Pricing

Percentage of respondents

Would Pay More

41%

United States

Actually Pay More

10%

Canada

## Would Subscribe to Unlimited Online Video for a Higher Monthly Fee

Percentage of respondents

26%

United States

22%

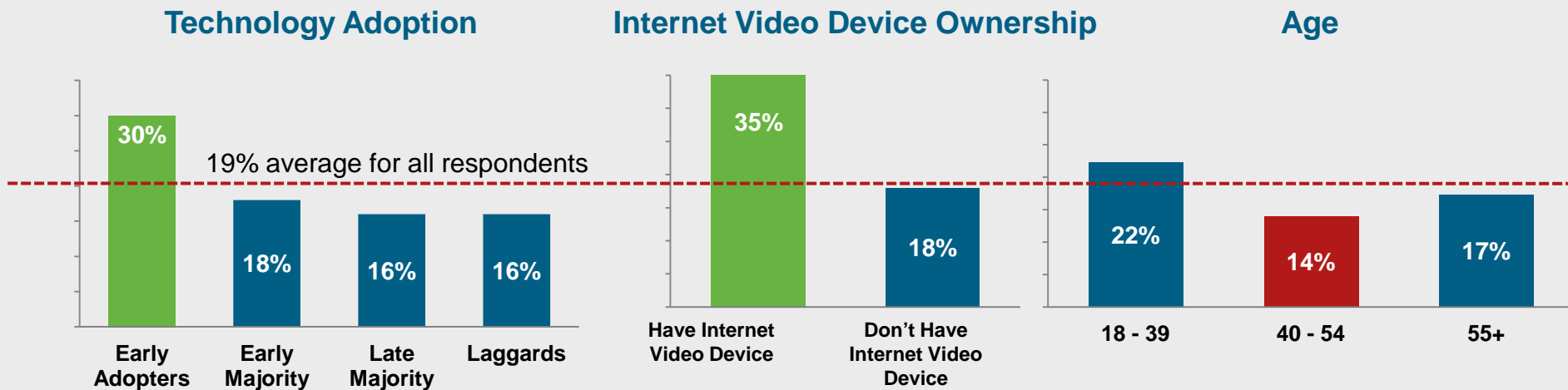
Canada

Source: Cisco IBSG Connected Life Market Watch, 2011

# Heavy User Segments Are More Likely To Consider Usage-Based Billing Fair

## Potential to Monetize Increased Traffic—Canada

Percentage of Consumers that Perceive Usage-Based Billing as Fair  
By customer segment



- Early adopters and Internet video device owners are **more likely** to consider usage-based billing fair

- Consumers aged 40-54 are **less likely** to consider usage-based billing fair

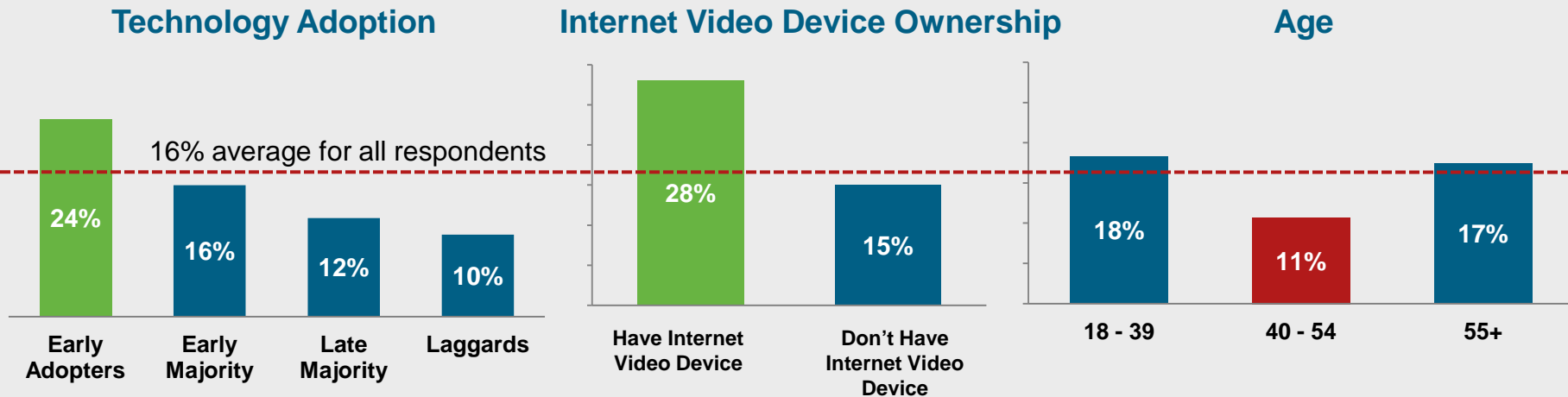
Source: Cisco IBSG Connected Life Market Watch, 2011

Base: Respondents who view usage-based billing as fair

# Heavy User Segments Are More Likely To Consider Usage-Based Billing Fair

## Potential to Monetize Increased Traffic—United States

Percentage of Consumers that Perceive Usage-Based Billing as Fair  
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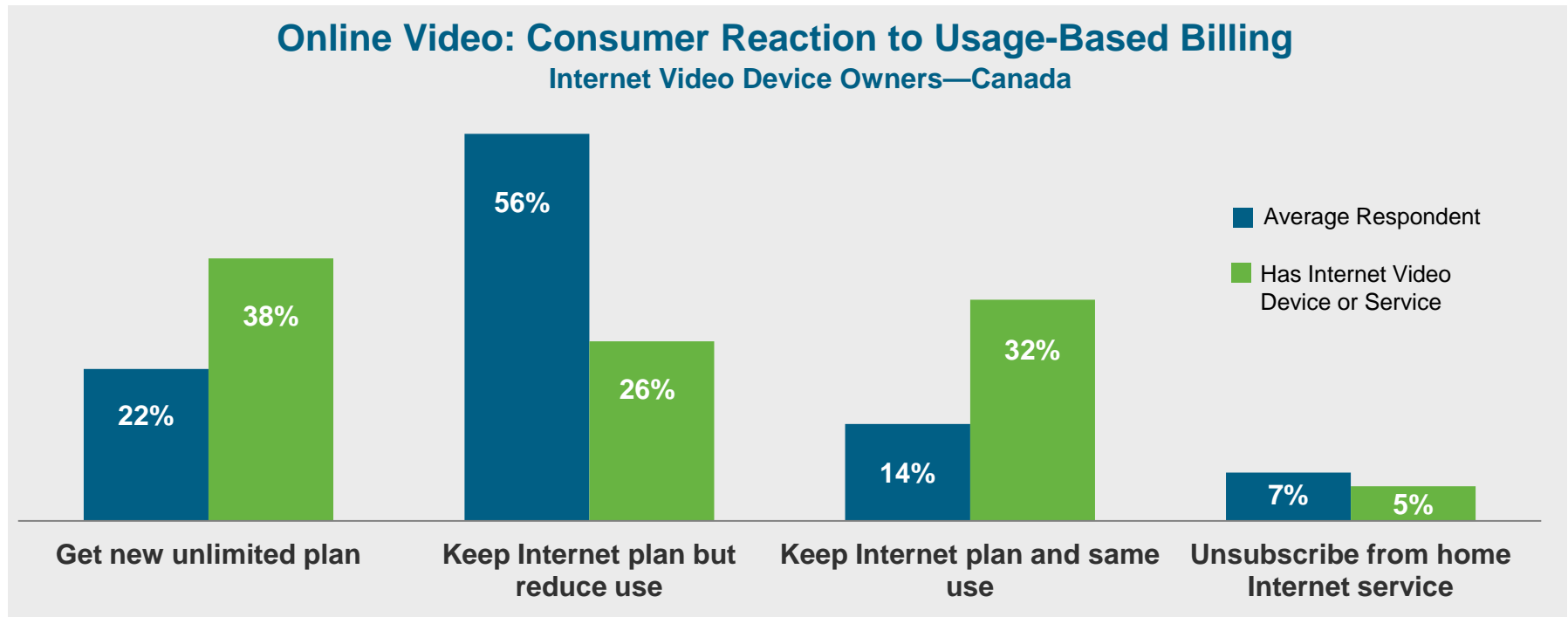
- Consumers aged 40-54 are **less likely** to consider usage-based billing fair

Source: Cisco IBSG Connected Life Market Watch, 2011

Base: Respondents who view usage-based billing as fair

# Canadian Internet Video Device Owners Are Willing To Pay for Unlimited Plans. . .

## ... And Are Less Likely To Reduce Use



- Internet video device owners are evenly split across getting unlimited plans, keeping plans and reducing usage, and keeping plans and same usage
- Internet video device owners are more likely than average to adopt unlimited plans and are less likely than average to reduce usage

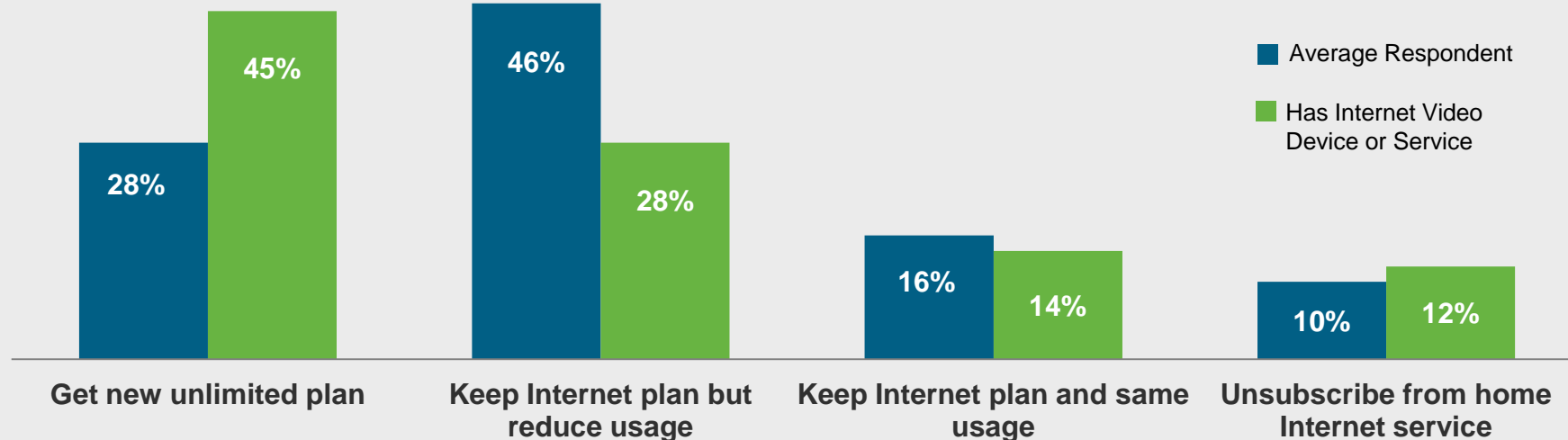
Source: Cisco IBSG Connected Life Market Watch, 2011

Base: Canada broadband consumers

# U.S. Internet Video Device Owners Are Willing To Pay for Unlimited Plans. . .

. . . And Are Less Likely To Reduce Use

**Online Video: Consumer Reaction to Usage-Based Billing**  
Internet Video Device Owners—United States



- Internet video device owners are evenly split across getting unlimited plans, keeping plans and reducing usage, and keeping plans and same usage
- Internet video device owners are more likely than average to adopt unlimited plans and are less likely than average to reduce usage

Source: Cisco IBSG Connected Life Market Watch, 2011

Base: U.S. broadband consumers



# 4

## Examining Usage-Based Offers

# Package Ideation: Nine Potential Options for Usage-Based Plans

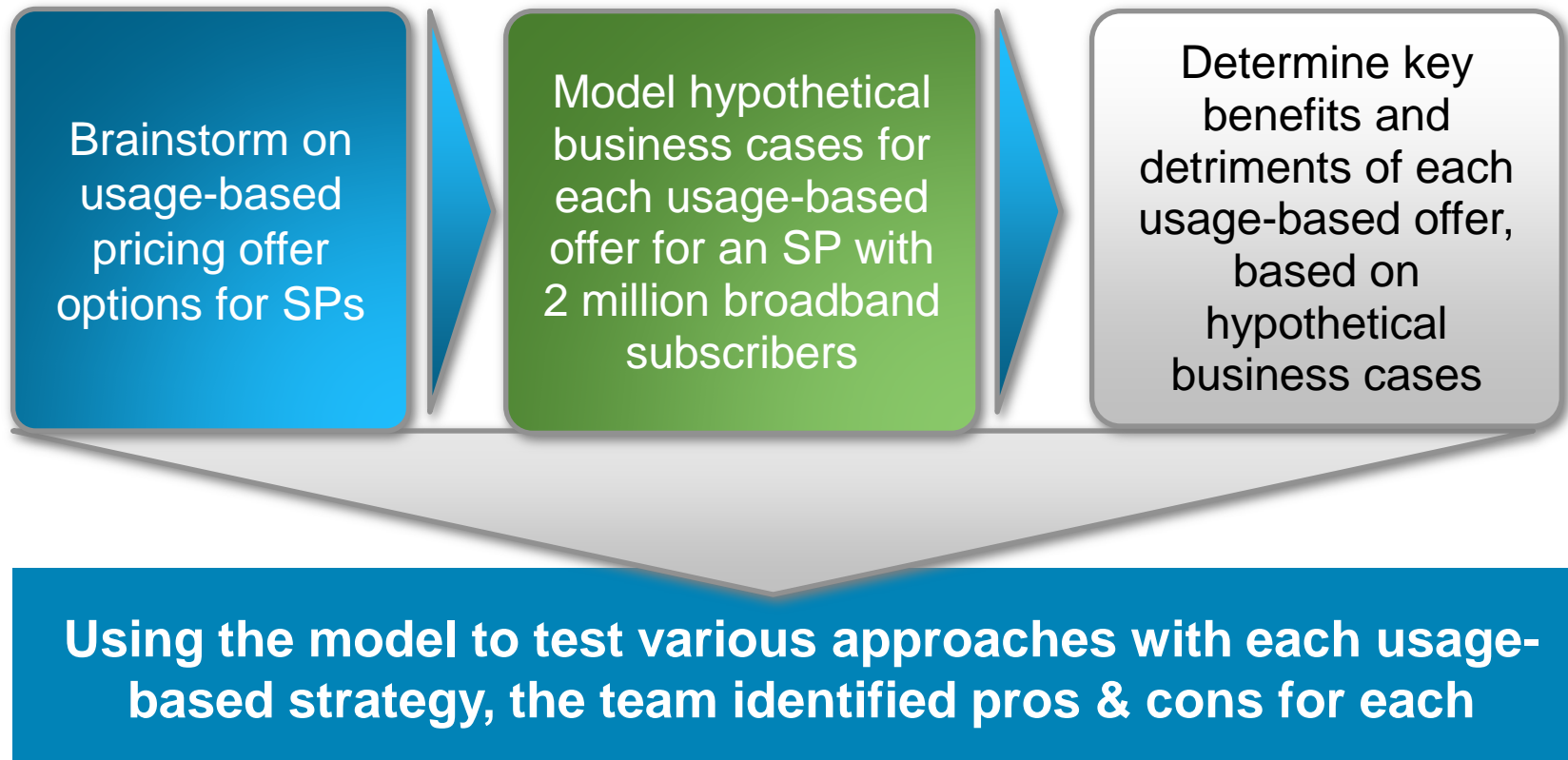
	Service Option	Description	Impact
1	<b>Usage-Based Tiers</b>	Provide several levels of increasing GB usage for increasing prices, with overage fees	Capture increasing ARPU as users graduate to next tier and usage increases
2	<b>Unlimited-Bandwidth Tier</b>	Create top-tier expensive unlimited plan	Monetize top users of data rather than cutting them off
3	<b>SP OTT Video Offer</b>	Offer OTT VoD managed service along with pay-TV offering for video service	Avoid cost of OTT delivery by providing SP OTT service, allowing revenue capture
4	<b>Per-Bit Metered Plan</b>	Users pay on a flat per-bit plan	High users churn away due to higher costs; low users pay less, eliminating subsidization
5	<b>Cross-Device Data Plan</b>	Consumers buy one bucket of data and can use for home, mobile, any device	Lost ARPU difficult to replace with churn improvements, market share gains, and fees
6	<b>Time-Based Usage</b>	Consumer pay flat per-minute fee for usage of Internet	High users churn away due to higher costs; low users pay less, eliminating subsidization
7	<b>Time-of-Day Usage Fees</b>	Consumers pay more per bit at peak use times, and less off-peak	Reduce peak traffic, attract users with time-of-day unlimited offers
8	<b>SP / OTT Partnerships</b>	Partner with OTT to offer unlimited bandwidth for certain sites; must be made available to all OTTs	Defend against OTT threat, replace some lost revenues
9	<b>Activity-Specific Usage Plans</b>	Consumers purchase unlimited usage for specific applications, gaming, backup, music, etc. Offerings must cover all types.	Strong partnering ability with third parties, improved customer loyalty and market share

Source: Cisco IBSG, 2012

List is illustrative. Not intended to be comprehensive.

# Evaluation Methodology: Assessing SP Options for Usage-Based Pricing

This process tested individual pricing strategies in isolation. In reality, most strategies will be implemented simultaneously in combination with other strategies.



Source: Cisco IBSG, 2012

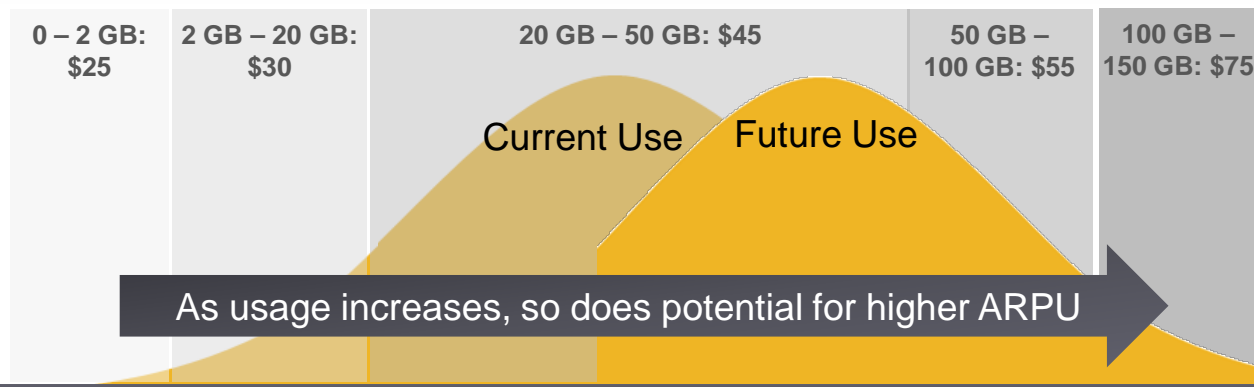


# 1

## Usage-Based Broadband Tiers

- Pricing increases by tier, as do gigabyte allowance and speed
- Overage fees charged per GB until user has paid enough to graduate to next usage tier
- ARPU increases as users consume more data and graduate to higher tiers

### Example: Broadband Consumer Tiers by Usage



### Pros

- Opportunity to grow ARPU from broadband as use increases, driving users to next tier
- Ability to manage costs of increased capacity and network investments

### Cons

- Potential consumer backlash from usage-based pricing
- Potential for competitors to steal share by offering unlimited plans

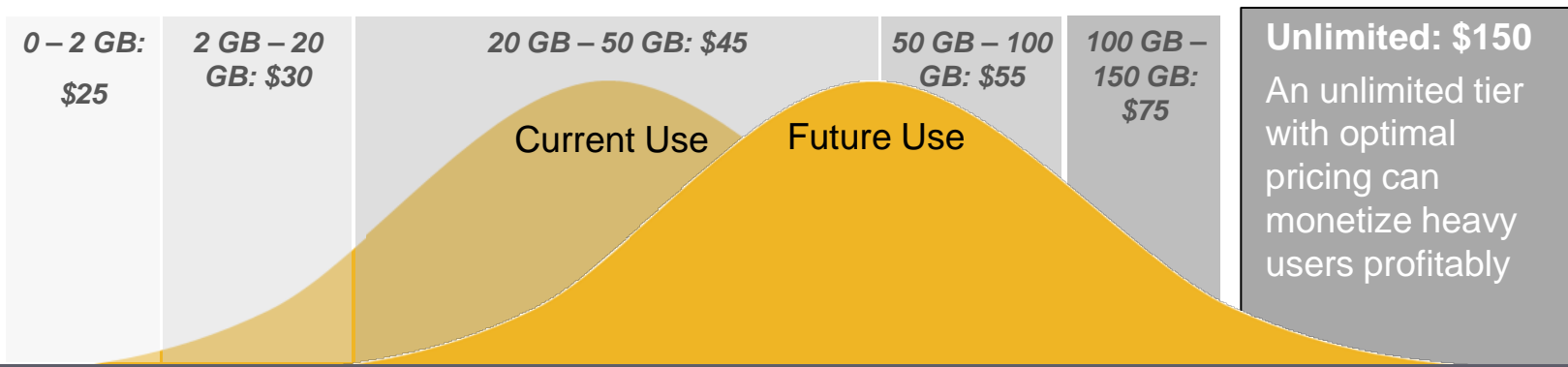
Source: Cisco IBSG, 2012

# 2

## Unlimited Broadband Tier

- Provide unlimited tier above last usage tier to capture revenue from heavy users at a price that results in positive economics for entire group of heavy users

### Example: Broadband Consumer Tiers by Usage



### Pros

- Capture revenue from small group of customers who have highest traffic
- Focus niche offering at high price to capture revenue or drive costly users to other carriers
- Customers understand value and have better experience; heavy users are no longer penalized

Source: Cisco IBSG, 2012

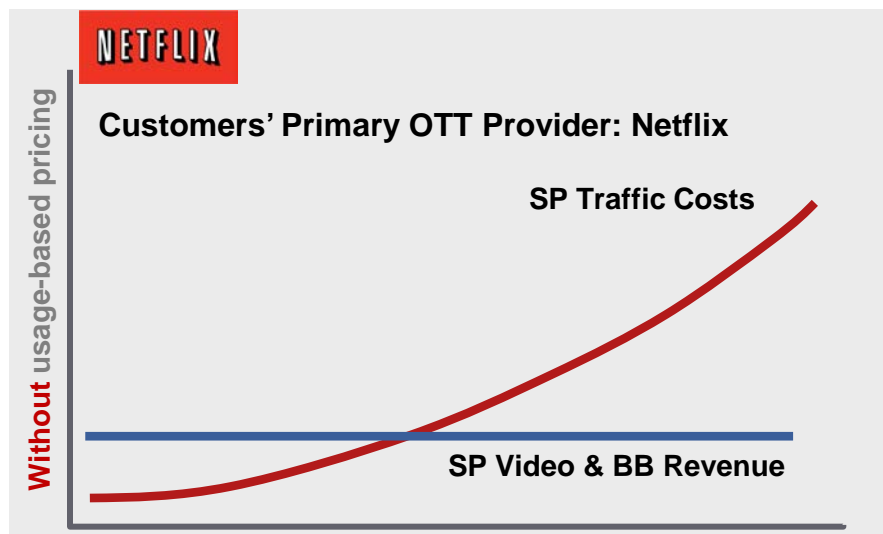
### Cons

- Potential for abuse; need to consistently monitor for price effectiveness
- Potential to catalyze online video usage, resulting in increased churn from pay-TV and VoD services

# 3

## Service Provider OTT Video Offer

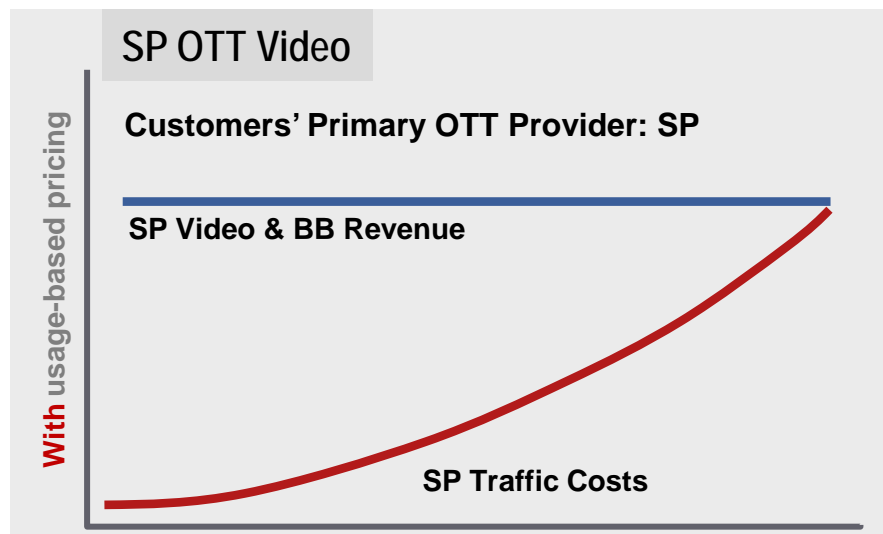
- SP offers OTT video package, discrete and separate from broadband packages
- Includes access to online video that is competitive with market offers such as Netflix
- OTT video-related broadband usage will not count against customer's broadband cap



### Pros

- Cross-product benefit for SPs with TV services
- Keeps customers, who might have churned to Netflix, loyal to the SP video offering
- Monetization based on content and value, not just broadband use

Source: Cisco IBSG, 2012



### Cons

- Potential for abuse among customers with free broadband usage for video content; may allow users to take lowest tier and drive costs higher through video usage; pricing should cover this scenario
- May cannibalize traditional SP video services

# 4

## Per-Bit Metered Plan

- SP charges flat connection fee to each subscriber
- SP charges flat per-gigabyte fee

### Example: Price paid on a flat-price, per-bit metering method—\$3 / GB

0 – 2 GB: \$0 – \$6	2 GB – 20 GB: \$6 – \$60	20 GB – 50 GB: \$60 – \$150	50 GB – 100 GB: \$150 – \$300	100 GB +: \$300+
------------------------	-----------------------------	-----------------------------	----------------------------------	---------------------

**Paying less. No longer subsidizing other users: \$0 - \$50**

Lower volume users will not churn, but overall they will spend less

**Paying more. Churn to competitor: \$50 - \$300+**

Paying per GB drives costs too high, resulting in churn of medium-to-heavy users

### Pros

- Simplifies management of revenues-to-costs
- Simplifies usage billing
- Ties revenue directly to increase in usage, eliminating concern regarding cost impacts of data traffic forecasts
- Will curtail usage among high-GB users

Source: Cisco IBSG, 2012

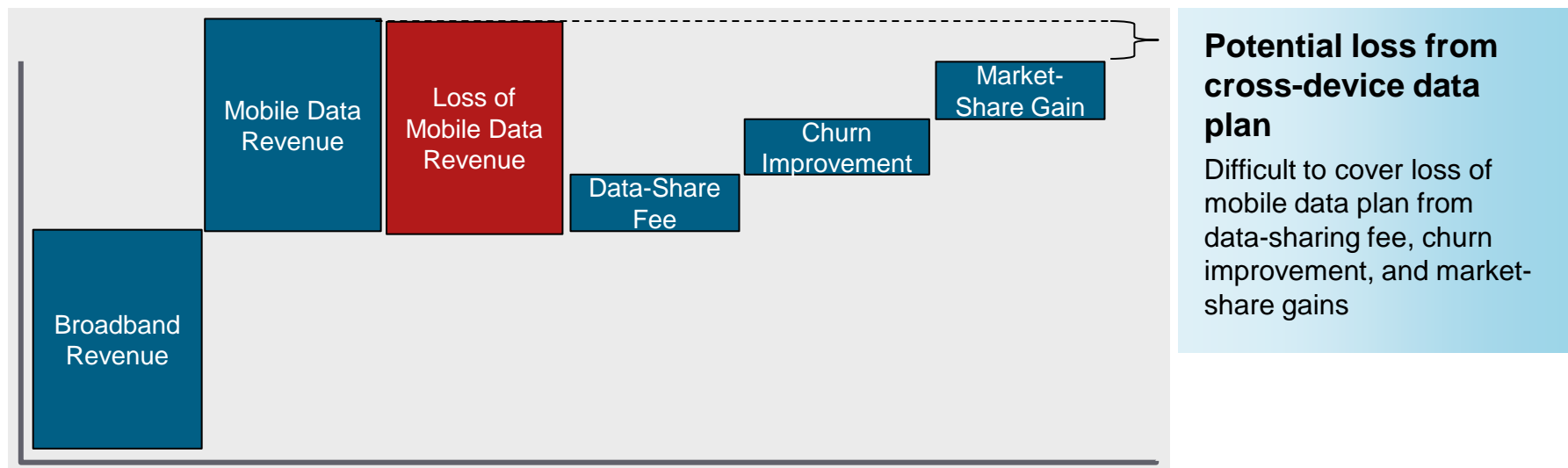
### Cons

- Average users will churn to competitor due to high costs
- Low users will pay less, no longer subsidizing other users
- If competitors don't follow with per-bit metered plan, they will be able to steal share

# 5

## Cross-Device Data Plan

- Data bucket is shared across consumer's broadband and mobile services
- SP charges flat data-sharing fee to compensate for lost ARPU from mobile data plan



### Pros

- Simplifies customer experience and allows users to buy one plan for all their data use
- Prevents churn and ties separate offerings together, particularly for SPs with both broadband and mobile assets
- Increases market share

Source: Cisco IBSG, 2012

### Cons

- May reduce total revenue as lucrative mobile broadband and home broadband ARPU decrease for each adopter of shared plan
- Benefits of churn improvement and added market-share gains may not offset losses from reducing combined data ARPU

# 6

## Time-Metered Plan

- SP charges flat connection fee and flat per-minute usage fee
- By combining per-minute pricing with time-of-day and/or unlimited pricing options, SPs could potentially improve monetization

Price paid on a flat-price-per-minute metering method: \$0.01 / minute

0 – 900  
min:  
\$0 – \$9

900 min –  
2,700 min:  
\$9 – \$27

2,700 min – 5,400 min: \$27 – \$54

5,400 min –  
9,000 min:  
\$54 – \$90

9,000 min+  
\$90+

**Paying too little and not subsidizing other users—  
\$0 - \$27**

Revenues from lighter users declines

**Paying too much; more likely  
to churn to competitor—\$60+**

Paying per minute drives costs too high, resulting in churn of medium-to-heavy users

### Pros

- Simplifies management of revenues-to-costs
- Simplifies usage billing
- As use of Internet increases, so will revenue
- Will cause high time users to reduce use

### Cons

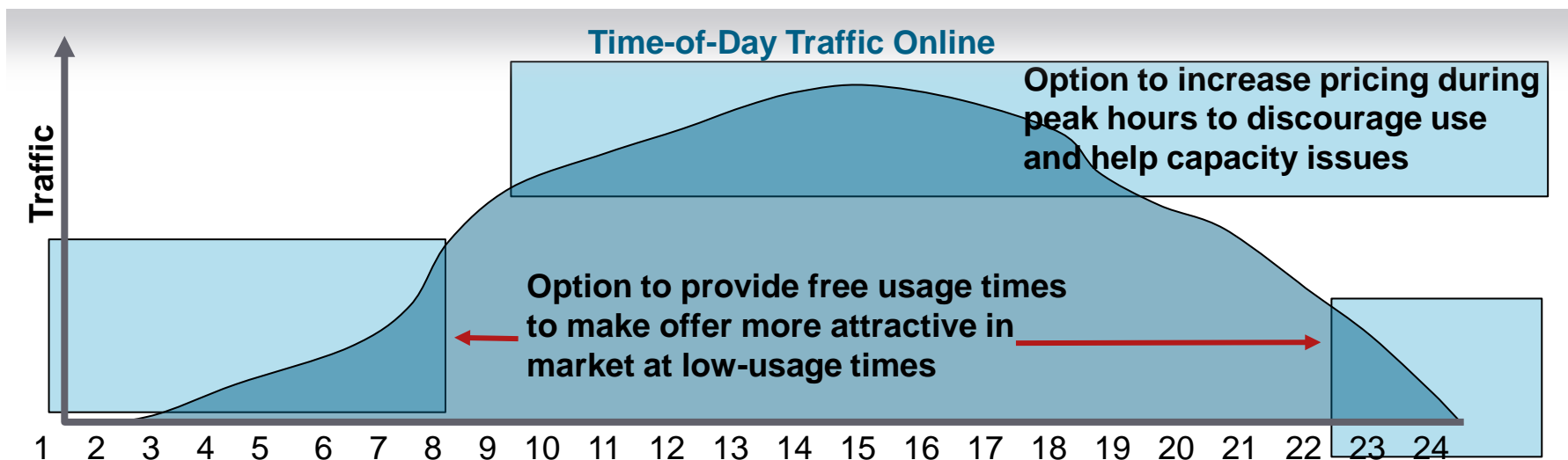
- Heavy users will churn to competitor due to high costs
- Low users will pay less, no longer subsidizing other users
- If competitors don't follow with a time-metered plan, they will be able to steal share

Source: Cisco IBSG, 2012

# 7

## Time-of-Day Usage Plan

- SP charges flat connection fee to each subscriber
- SP charges per-gigabyte usage fee, with pricing varying by time of day (peak times more expensive)



### Pros

- Reduces impact on network by reducing peak usage and maximizing non-peak times
- As consumers use more Internet, SP revenue will increase
- Will cause high-bandwidth users to reduce use, lessening demand on network

Source: Cisco IBSG, 2012

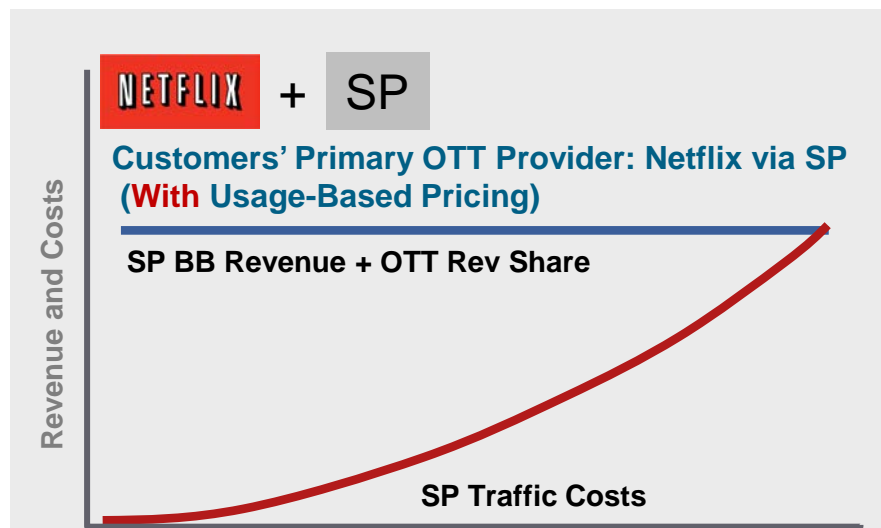
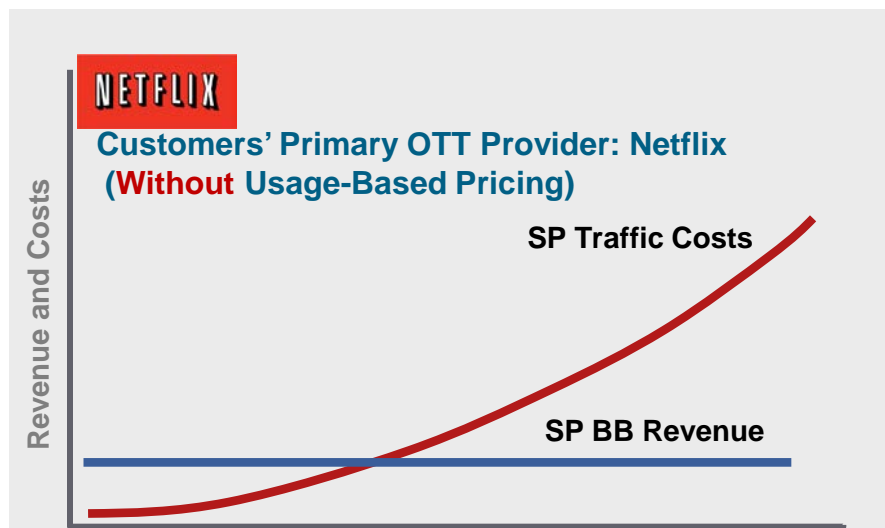
### Cons

- Many heavy users will see massive increase to bill, driving churn to other providers
- If competitors don't switch to a similar plan, they could steal share, increasing competitive threat

# 8

## Service Provider / OTT Partner Offer

- SP partners with OTT provider to enable video service usage without counting toward cap
- Partner subsidizes SP for access to customer base



### Pros

- Allows monetization of additional usage on broadband network by partnering with Netflix
- Makes SP offer more relevant to consumers
- Increases functionality of SP offer
- Creates new revenue stream by selling access to base

Source: Cisco IBSG, 2012

### Cons

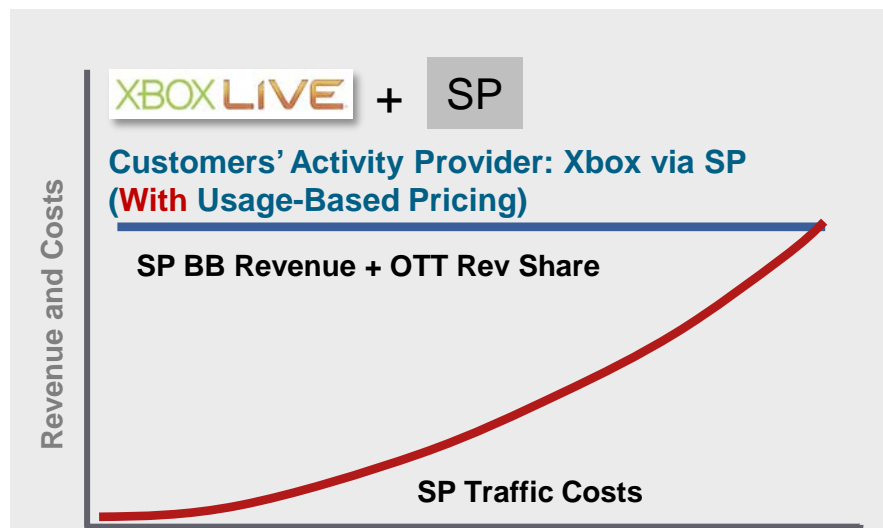
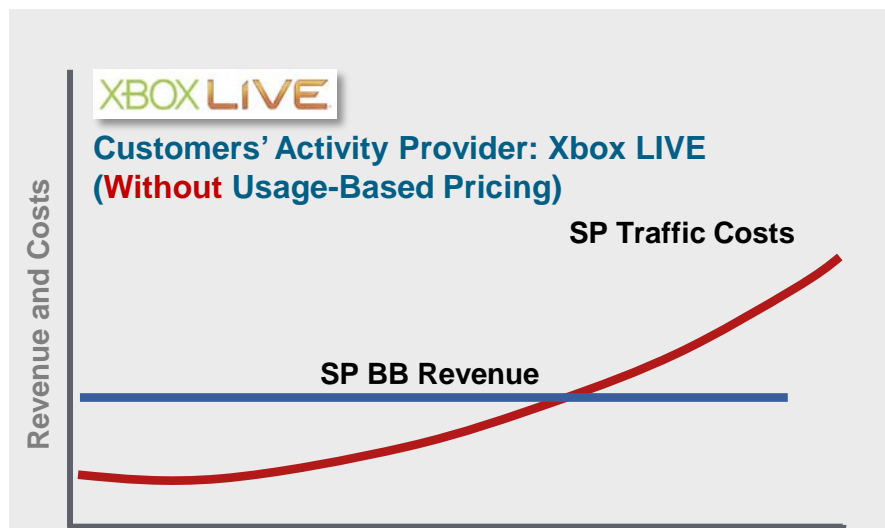
- Potential for abuse
- May cannibalize traditional SP video services
- May allow users to take lowest tier and drive costs higher through video usage; pricing should cover this scenario
- Regulatory concern



# 9

## Activity-Specific Usage Plan

- SP partners with third-party provider to enable social, backup, gaming, or music service without counting toward cap
- Partner subsidizes SP for access to customer base



### Pros

- Allows monetization of additional network use by partnering with third parties
- Makes SP offer more relevant to consumers in danger of churning
- Increases functionality of SP offer
- Creates new revenue stream by selling access to base

Source: Cisco IBSG, 2012

### Cons

- Potential for abuse
- May cannibalize competitive SP services
- May allow users to take lowest tier and drive costs higher through video usage; pricing should cover this scenario
- Regulatory concern



**5**

## **Usage-Based Pricing & Video**

# SP OTT Video Offer: A Deeper Look

- With OTT video, SP captures video revenues from OTT video use vs. capturing only usage-based broadband revenues
- Offers that bundle unlimited broadband with video usage will appeal to particular user segments



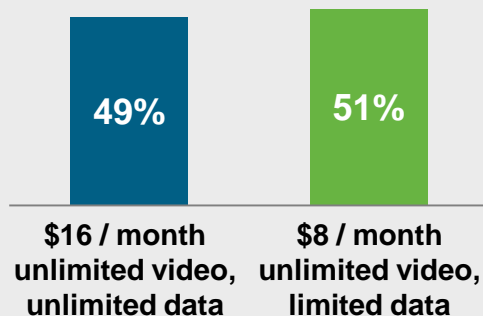
Source: Cisco IBSG, 2012

# Linking Tiered / Unlimited Broadband Options to OTT Video Offering

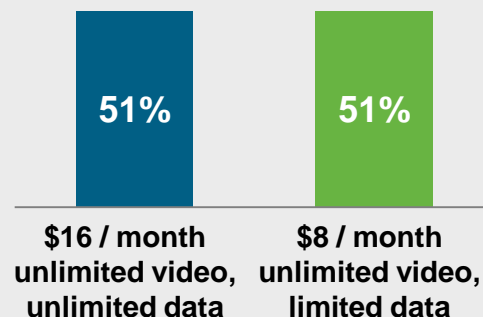
## Online Video / Data Plan Preference

Percentage of respondents

United States



Canada



## Question:

Imagine you wanted to subscribe to an online video service, such as Netflix, to watch movies on your computer and on your TV. Which option would you select:

- **\$16** per month, with **unlimited access** to video library, unlimited video streaming or downloading; **would not count against data limits** set by Internet service provider. OR . . .
- **\$8** per month for **unlimited access** to video library, unlimited video streaming or downloading; **would count against data limits** set by Internet service provider, and could be subject to **additional data fees**.

Source: Cisco IBSG Connected Life Market Watch, 2011

Base: Broadband consumers

# In Both U.S. and Canada, Younger Users Prefer Unlimited Data Option

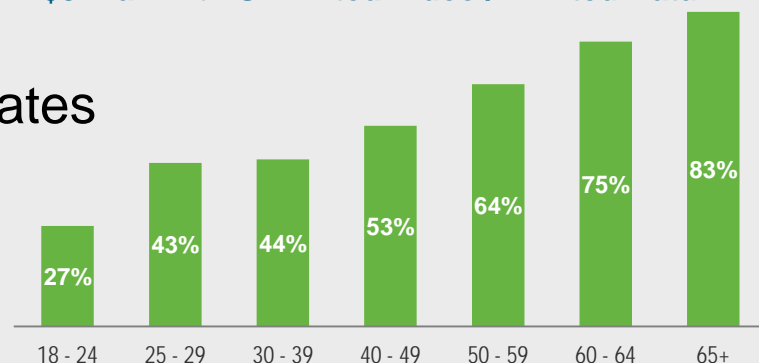
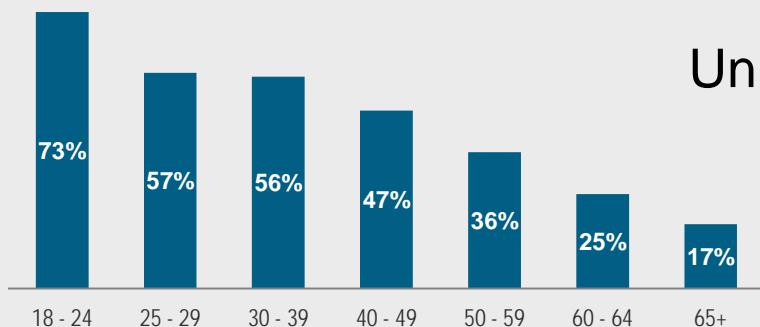
## Online Video / Data Plan Preference

Percentage of Respondents

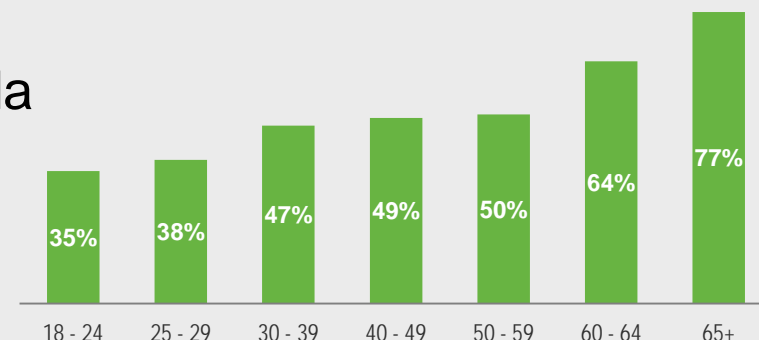
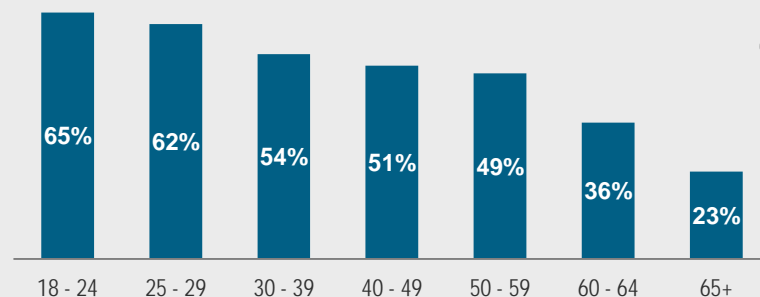
**\$16 Plan with Unlimited Video / Unlimited Data**

**\$8 Plan with Unlimited Video / Limited Data**

United States



Canada

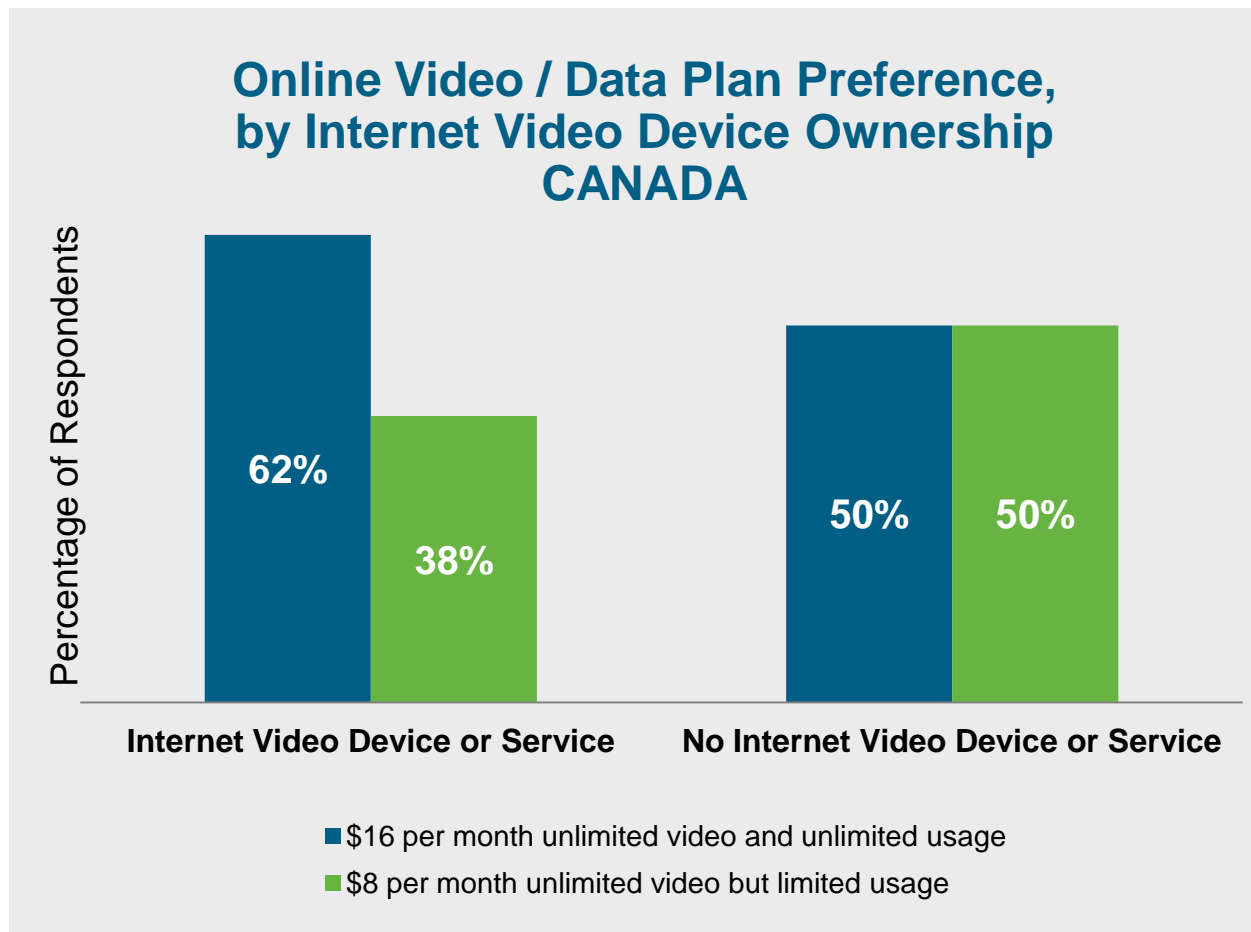


Younger consumers skew heavily toward unlimited video / data plan, while older consumers skew heavily toward unlimited video with limited data

Source: Cisco IBSG Connected Life Market Watch, 2011

Base: Broadband consumers

# Most Internet Video Device and Service Owners Prefer Unlimited Data Option

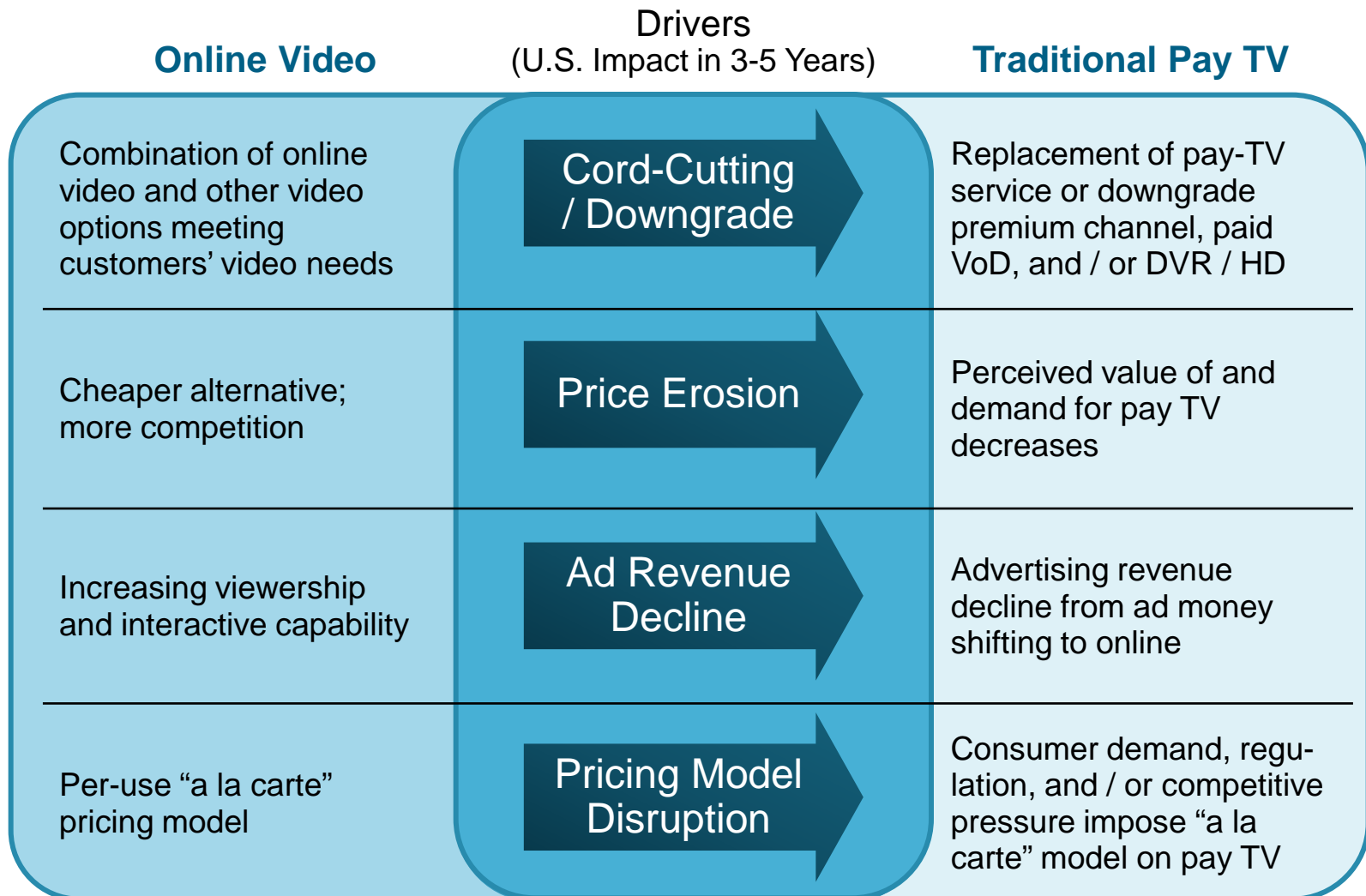


- Internet video device owners show increased preference for \$16 / month unlimited video and data plan
- Internet video device ownership is likely correlated with higher online video use, indicating that those with significant online video use are more likely to pay to continue that behavior

Source: Cisco IBSG Connected Life Market Watch, 2011

Base: Canadian broadband consumers

# Integrated SPs Face Many Threats to Traditional Video Revenue



Source: Cisco IBSG, 2010-2011

# Usage-Based Billing Strategies Can Minimize ARPU Loss Due to OTT Video

	Scenario 1		Scenario 2		Scenario 3		Scenario 4	
	Cut pay TV and VoD, replace with OTT Video		Cut VoD, replace with OTT video		Cut pay TV, replace with OTA; cut VoD, replace with OTT video		Cut pay TV and VoD, replace with SP OTT	
Service	Revenue	Margin	Revenue	Margin	Revenue	Margin	Revenue	Margin
<b>Original Pay-TV Usage</b>	\$54.80	\$13.70			\$54.80	\$13.70	\$54.80	\$13.70
<b>Switch to Hulu</b>	(\$54.80)	(\$13.70)						
<b>Switch to HD Antenna</b>					(\$54.80)	(\$13.70)		
<b>VoD Usage</b>	\$20	\$5	\$ 20	\$5	\$20	\$5	\$20	\$5
<b>Switch to Netflix</b>	(\$20)	(\$5)	(\$20)	(\$5)	(\$20)	(\$5)		
<b>Total Video Revenue Loss</b>	<b>(\$74.80)</b>	<b>(\$18.70)</b>	<b>(\$20)</b>	<b>(\$5)</b>	<b>(\$74.80)</b>	<b>(\$18.70)</b>	<b>(\$74.80)</b>	<b>(\$18.70)</b>
<b>Switch to SP OTT</b>							\$16	\$2.24
<b>Upgrade to Higher-Tier BB</b>	\$23	\$12.65	\$13	\$7.15	\$13	\$7.15	\$23	\$12.65
<b>SP Net Impact</b>	<b>(\$51.80)</b>	<b>(\$6.05)</b>	<b>(\$7)</b>	<b>+\$2.15</b>	<b>(\$61.80)</b>	<b>(\$11.55)</b>	<b>(\$35.80)</b>	<b>(\$3.81)</b>

As online video takes users away from pay-TV services, usage-based pricing may replace lost revenues and margin

Source: Cisco IBSG, 2012; Strategy Analytics, 2010





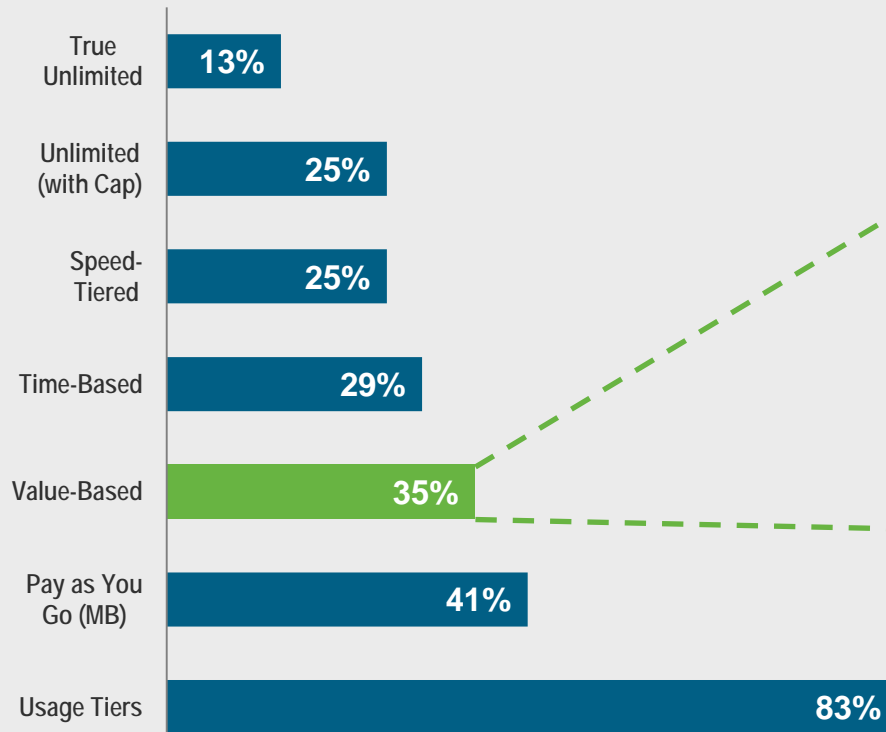
# 6

## Lessons Learned from Mobile

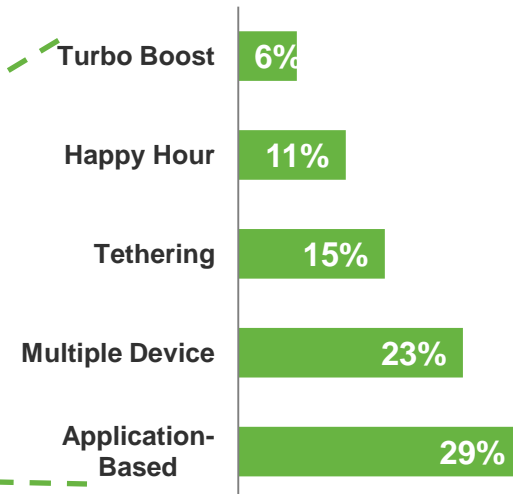
# More Than a Third of Mobile Operators Have Moved to Value-Based Pricing

## Usage-Based Pricing Plans Are Commonplace for Mobile

**Survey of Mobile Data Pricing Plans  
Across 100 Global Mobile Operators**  
Percentage of operators offering plan



**Value-Based Mobile Broadband  
Pricing, by Plan Type**  
Percentage of operators offering plan



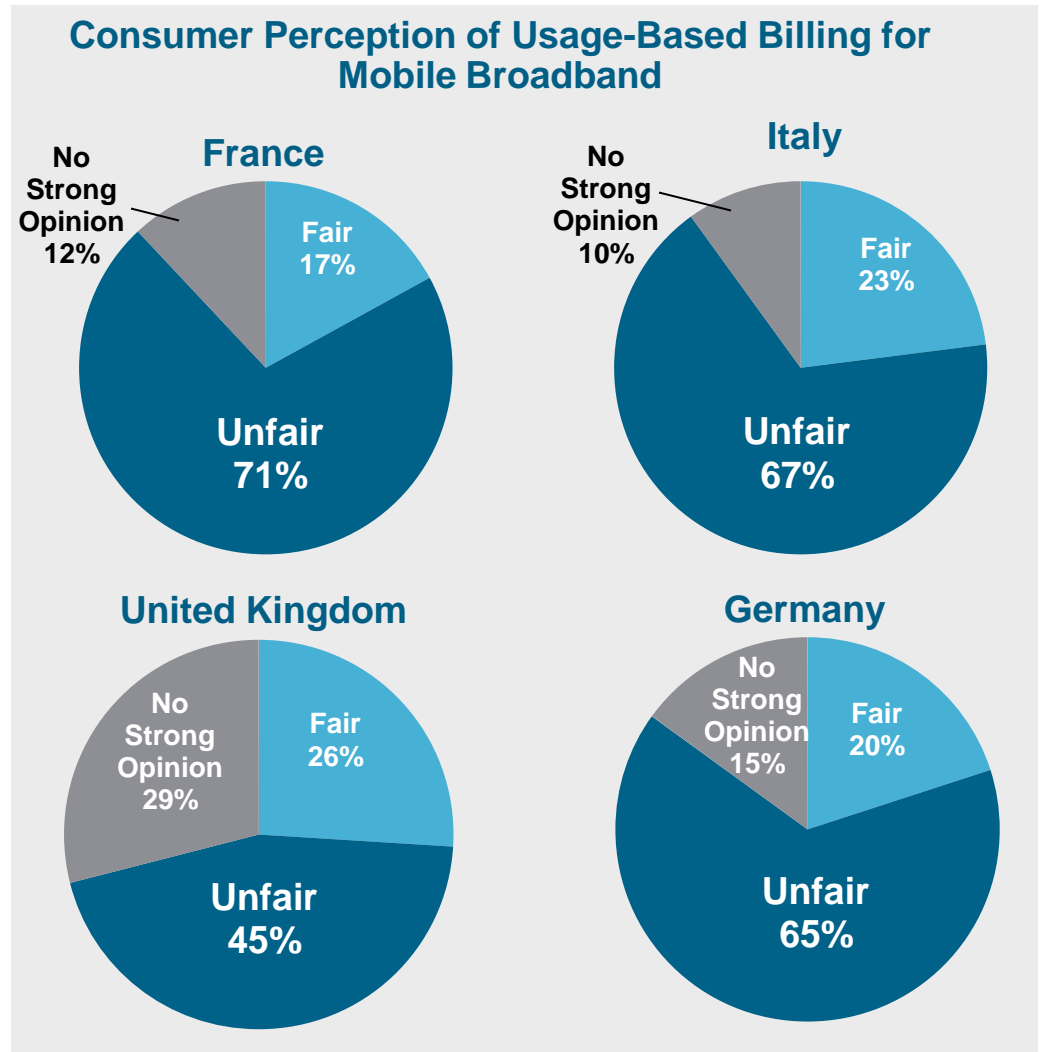
Also, 26% of mobile operators have revenue-sharing models in place

Source: Allot Mobile Data Pricing Study, 2011

Base: 100 mobile operators worldwide

# Consumers View Usage-Based Billing for Mobile Broadband as Unfair

- Most consumers consider usage-based billing for mobile data to be unfair
- Consumers in the United Kingdom are more likely than their Western European counterparts to consider mobile usage-based billing fair

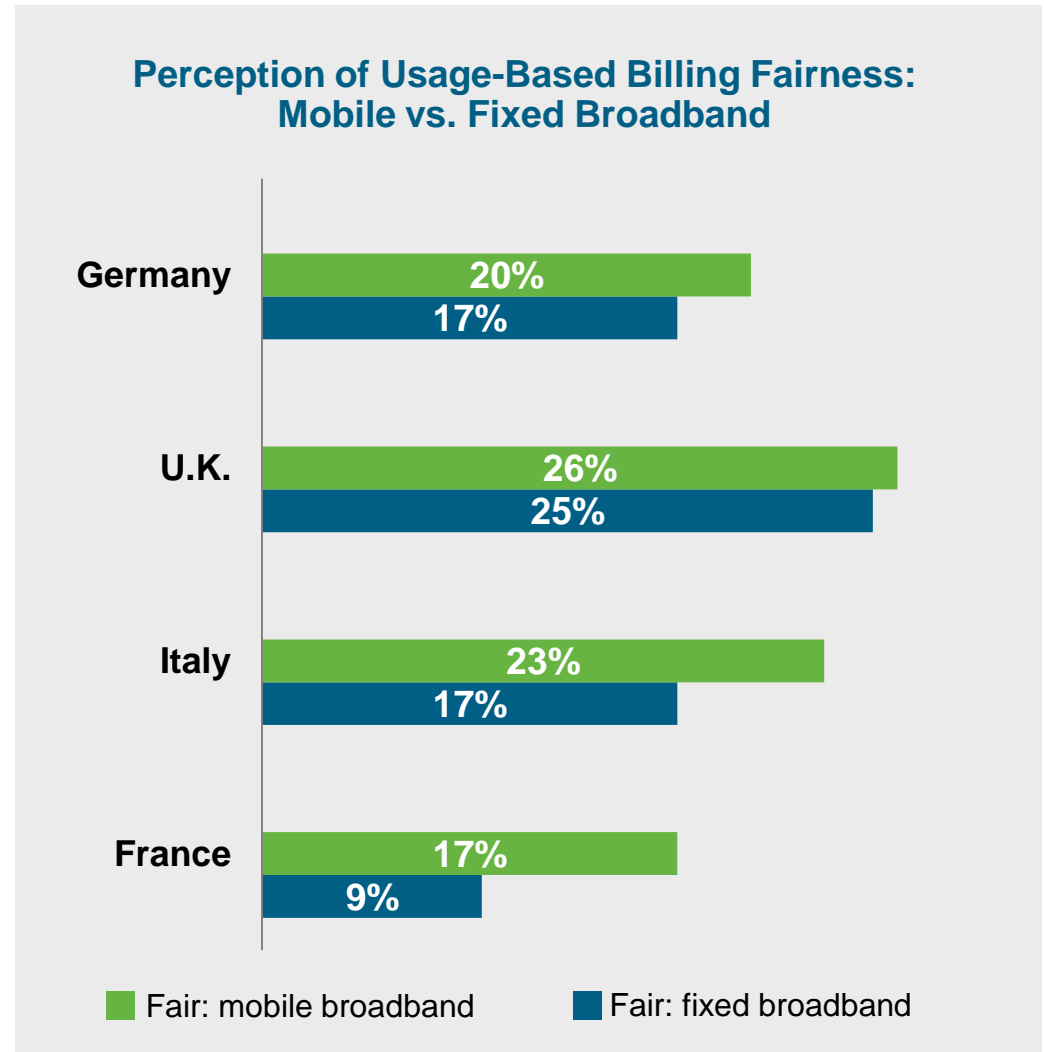


Source: Cisco IBSG Connected Life Market Watch, 2011

Base: Broadband consumers

# W. Europe: Usage-Based Billing Viewed More Positively for Mobile than for Fixed

- French consumers show the greatest disparity in their view of mobile vs. fixed usage-based billing
- British consumers are most consistent in their views of usage-based billing for mobile and fixed broadband

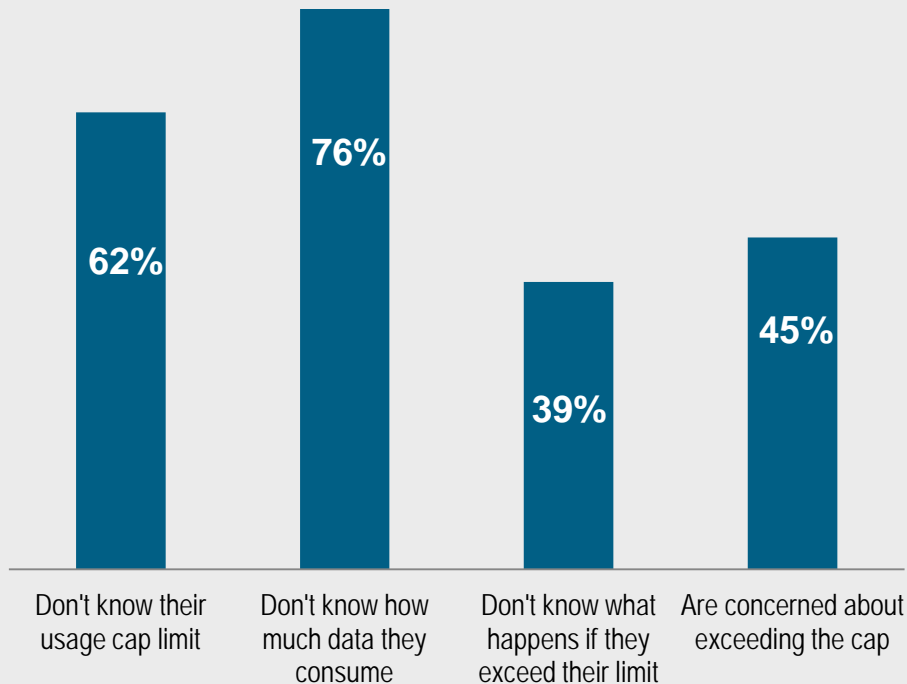


Source: Cisco IBSG Connected Life Market Watch, 2011

Base: Broadband consumers

# Mobile Data Users Are Unprepared To Make Buying Decisions Based on Use

Consumption Awareness Among Mobile Data Card Users



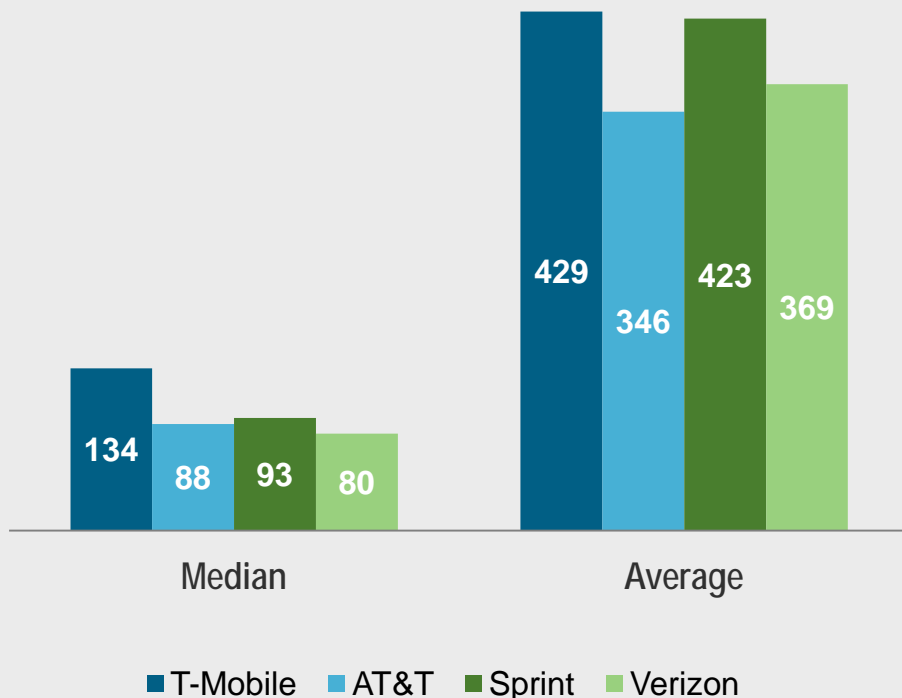
- 3 out of 4 mobile data card users do not know how much data they consume
- Most don't know their usage cap limit; nearly half are concerned about exceeding it

Source: Cisco IBSG, Heavy Reading, 2009

Base: 263 European mobile broadband dongle users

# Reports of Average Usage Will Lead Consumers to Overpay for Data Plans

Monthly Mobile Data Consumption (in MB),  
February 2010 - February 2011



- A small percentage of data hogs skew average consumption statistics
- Most consumers are well covered by providers' minimum plans, but many will pay for predictability
  - Minimum plan for most companies is 200 MB per month
  - 60% of users use less than 200 MB per month

Source: Validas, 2011

Base: 23,000 U.S. wireless subscribers

# Consumers Need Better Understanding of Data Consumption

## FCC Has Asked SPs To Provide Better Information

**FCC Wireless Code of Conduct**  
Updated To include *Bill Shock* Prevention Measures,  
October 2011

1. Send alerts to notify consumers when they approach and reach monthly plan limits that would result in overage charges
2. Send alerts when consumers are about to incur international roaming charges
3. Clearly disclose tools to let consumers set their own usage limits and monitor their usage balances

### Top 3 U.S. Operators Offer Usage Calculators Example: Verizon Data-Usage Calculator

#### Data Usage Calculator

Calculate your device usage to figure out which plan will best meet your needs.

#### Select Your Device


3G and 4G Smartphones    3G Mobile Broadband    4G Mobile Broadband

3G and 4G Mobile Broadband values are for computers only

#### The Essentials


 **E-Mail** 14.65 MB/mo.  
How many text-only emails do you send?


0   5   25   **50**   100   250   Per Day ▼

 **Web Access (Internet and Intranet)** 292.97 MB/mo.  
How many web pages do you visit?

0   5   25   50   100   250   Per Day ▼

#### Other Data Tasks

 **Stream and Download Music** 150 MB/mo.  
How much time do you stream and download music files?

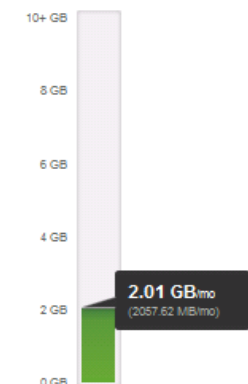
 **Stream Video** 625 MB/mo.  
How much time do you spend streaming videos?

#### 3G Video Streaming

0 mins   2 mins   10 mins   30 mins   1 hr   Per Day ▼

#### Total Monthly Data Usage

Reset



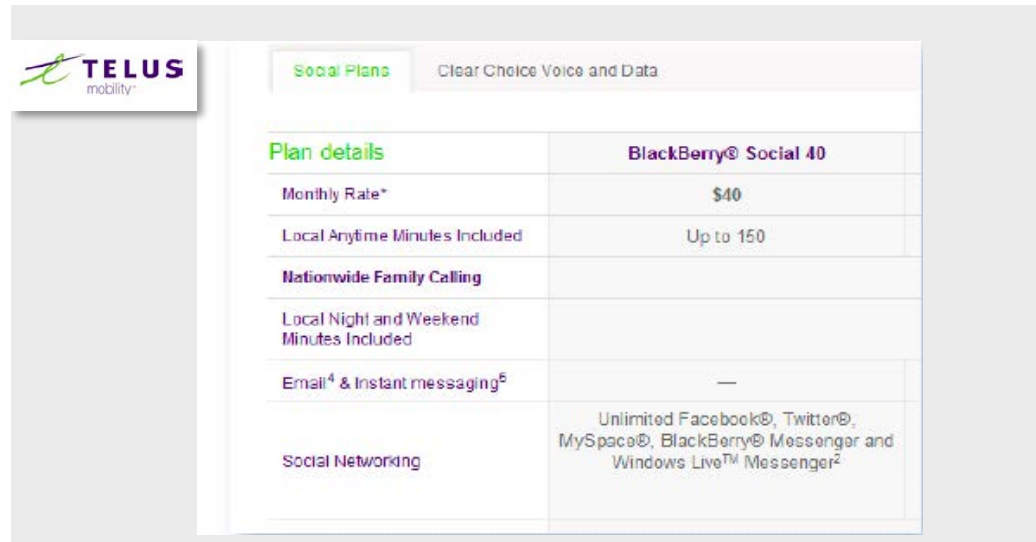
**1 out of 5 U.S. wireless subscribers received unexpected charges on their wireless bill in 2010**


Source: FCC, 2011; Consumers Union Survey, 2010; Verizon website, 2011

# Value-Based Pricing: Sample Plans

## Application-Based

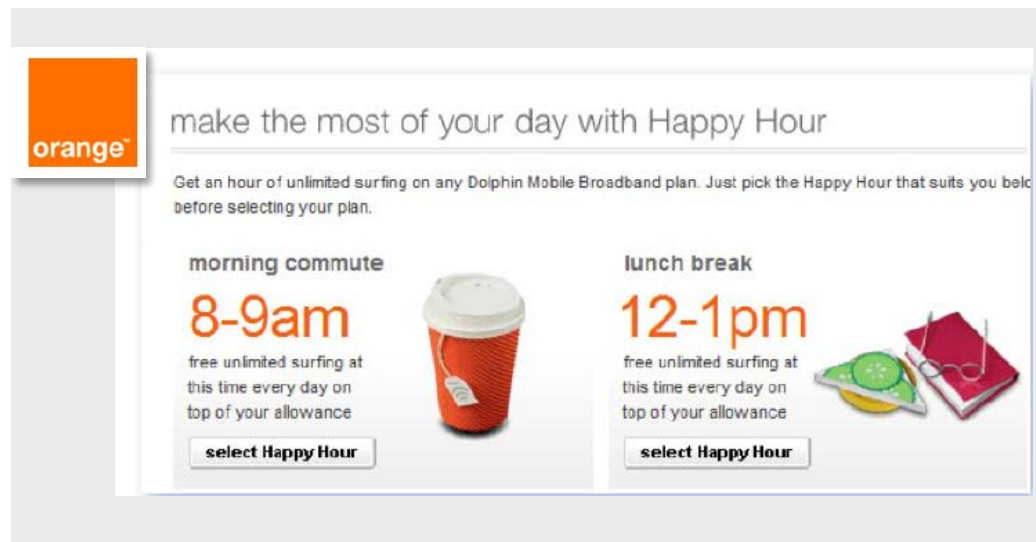
Telus Mobility in Canada offers social pages for BlackBerry handsets that allow unlimited access to Facebook, Twitter, MySpace, BBM, and Windows Live




	
Social Plans <a href="#">Clear Choice Voice and Data</a>	
Plan details	BlackBerry® Social 40
Monthly Rate*	\$40
Local Anytime Minutes Included	Up to 150
Nationwide Family Calling	
Local Night and Weekend Minutes Included	
Email <sup>4</sup> & Instant messaging <sup>5</sup>	—
Social Networking	Unlimited Facebook®, Twitter®, MySpace®, BlackBerry® Messenger and Windows Live™ Messenger <sup>2</sup>

## Time-Based Usage Pattern over Day

As part of Orange U.K.'s Dolphin plan, customers select one of two “Happy Hour” options for an hour of unlimited data per day



 make the most of your day with Happy Hour

Get an hour of unlimited surfing on any Dolphin Mobile Broadband plan. Just pick the Happy Hour that suits you best before selecting your plan.

morning commute

**8-9am**

free unlimited surfing at this time every day on top of your allowance

[select Happy Hour](#)

lunch break

**12-1pm**

free unlimited surfing at this time every day on top of your allowance

[select Happy Hour](#)





7

## Considerations for Service Providers

# SP Considerations: Moving Toward Usage-Based Pricing

## Questions to ask:

- Will **consumption** be a more viable value lever for pricing than **speed**?
- What can SPs do to steer clear of regulator concerns?
- What can SPs do to make usage-based pricing consumer-friendly?
- What can SPs do to make the migration from unlimited to usage-based pricing as pain-free for their customers as possible?
- How can usage-based pricing be implemented to drive the greatest revenue impact?
- How can usage-based pricing be implemented to provide the strongest control over Internet traffic patterns?

Source: Cisco IBSG, 2012



**CISCO**