

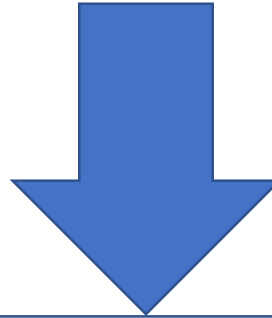
# Data Usage Billing Industry Overview

*Cory McAboy*

# High level view of Data Usage Billing landscape

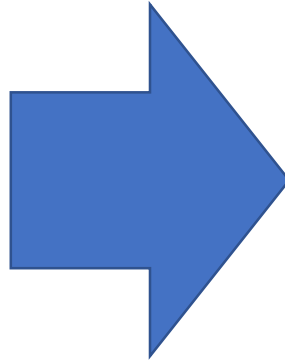
## **Threat of New Entry**

- Capital requirements
- Existing players may “enter” other regions
- Complex Regulation
- Most new entrants are small



## **Supplier Power**

- Backbone providers
- Telcos
- Equipment
- Existing Networks

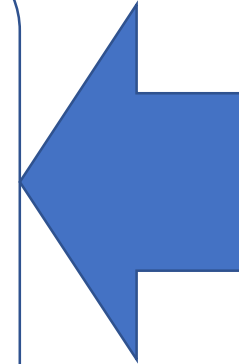


## **Internal Competition**

- Data Cap / No Data Cap
- Data Usage policies
- Price by Data Usage vs Flat Rate
- Marketing Strategies
- Quality of Service

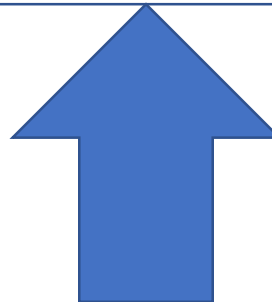
## **Buyer Power**

- Price Sensitive Consumers
- “Bill Shock”
- Low switching costs
- “Mono-home” industry



## **Threat of Substitution**

- Project Loon
- Facebook Connectivity Aircraft



# Data Usage Billing is a growing trend among ISPs

- Flat fee for internet access
- Several Companies are introducing Data Caps
- Data caps typically only affect less than 5% of the consumer base
- Consumer 'Bill Shock' leads to dissatisfaction and churn.
- Although small, Google Fiber is expanding and is aggressively marketing "No Data Caps"

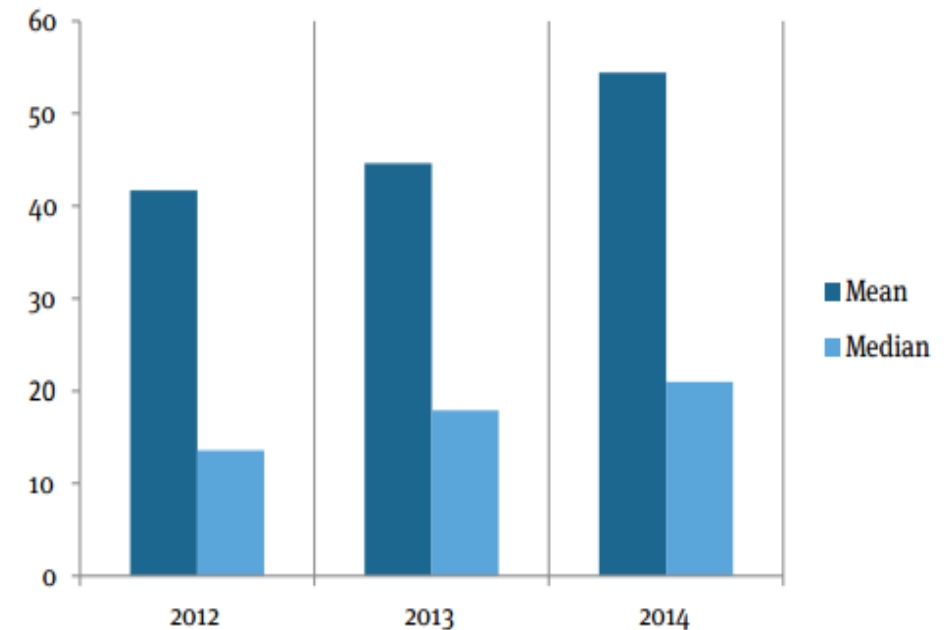
Company	Speed (Mbps)	Data Cap (Y/N)	Limit (GB)	Overage Penalty
ATT	1000	Y	1000	\$10 / 50GB
Comcast	1000	Y	1000	\$10 / 50GB
Google Fiber	1000	N	-	-
Cox	200	Y	1000	Moral Penalty
Charter	100	N*	-	-
TWC	50	N*	-	-
SuddenLink	40	Y	250	Shutdown or Upgrade

*\*Charter and TWC will not induce a data cap for 7 years due to agreement with FCC*

# Data Usage is trending upward as streaming video adoption increases

- Average Consumer Data Usage is increasing YoY
- A small percentage of users skew the average data consumption up dramatically
- 70% of bandwidth in 2015 came from streaming video
- 4K video streaming adoption will increase usage even more.

**FIGURE 2: AVERAGE MONTHLY BANDWIDTH USAGE FOR NORTH AMERICAN HOUSEHOLDS**



Source: Sandvine Global Internet Phenomena Reports

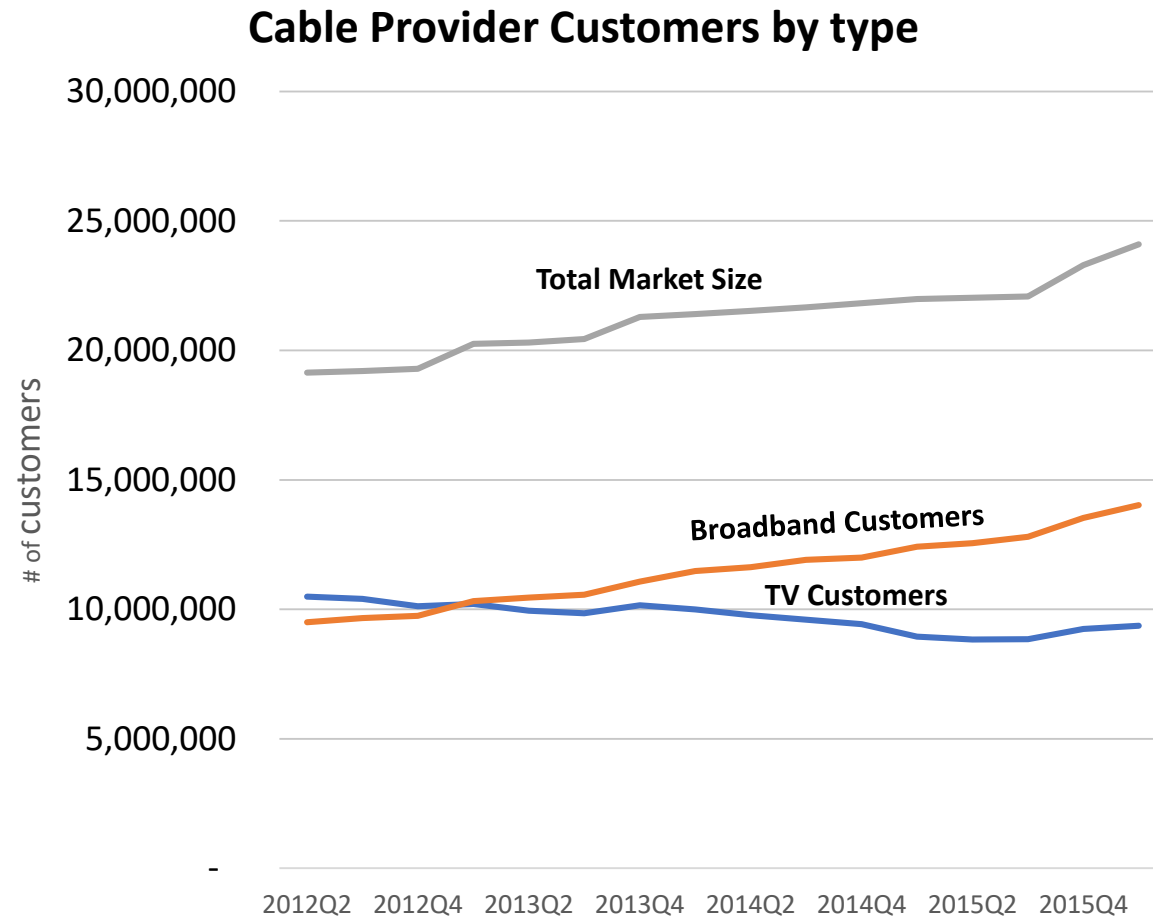
# The FCC has a very negative view on Data Caps and Data Usage Billing

- FCC requires transparency
  - ISPs must inform customers of Data Caps
- TWC and Charter merger
  - FCC requires 7 years of no data caps
- Net Neutrality Regulation
  - No Blocking
  - No Throttling (slowing)
  - No Paid Prioritization



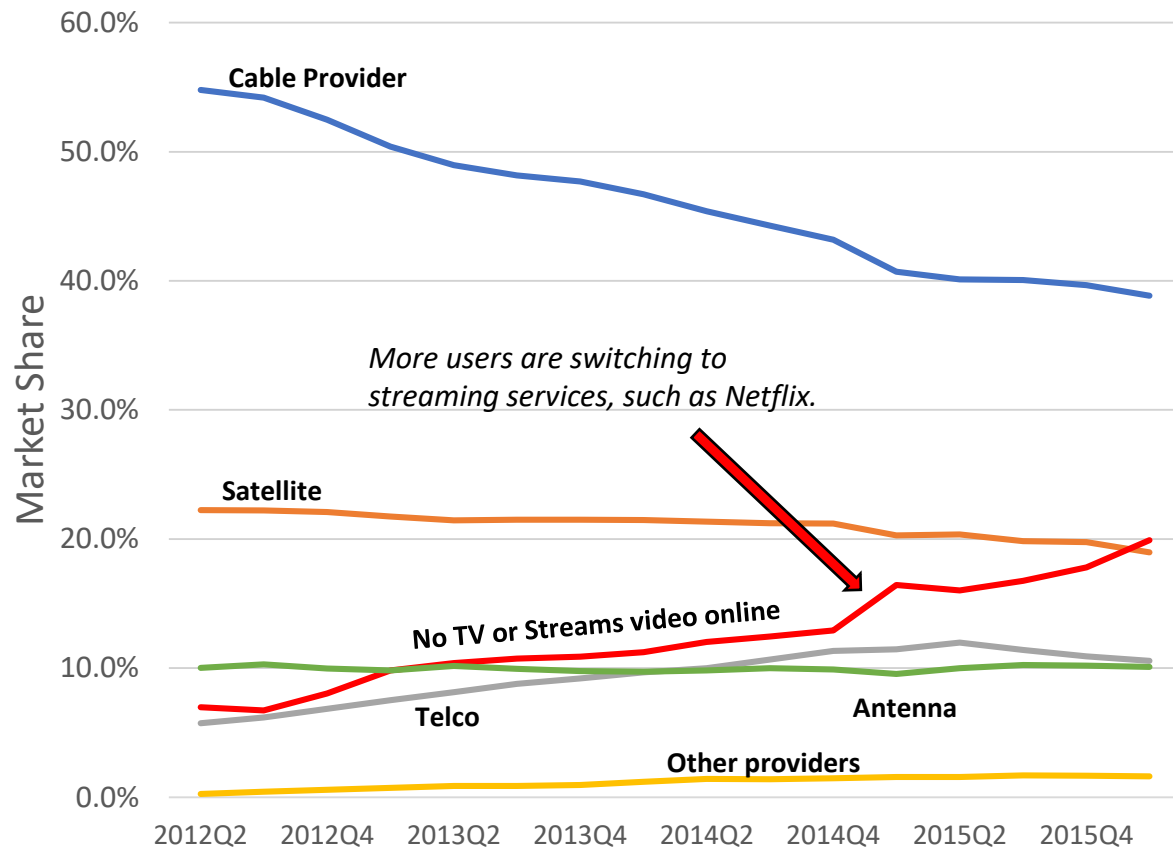
**FCC Chairman Tom Wheeler**

Cable Providers have increased Broadband customers, but lost ground on TV customers despite an increase in total market size



# The Decline in TV Market Share can be contributed to the Rise of Online Streaming

## Video/TV Market Share since 2012



## Broadband Market Share since 2012

