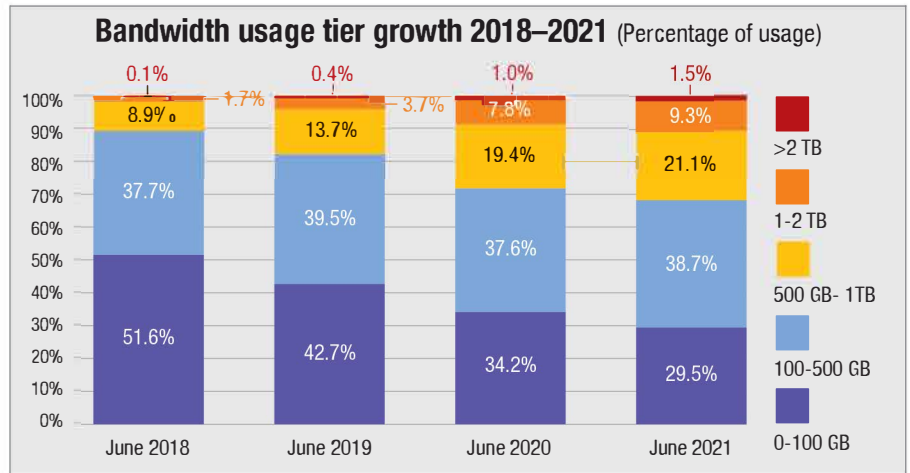


Running the Numbers

"Datapoints" is supplied by MS Consulting LLC.

1 TB Users Now 10.8% of Population

WHAT'S INTERESTING: Some 10.8% of the U.S. population uses more than 1 TB of data each month, according to OpenVault, up from just 1.8% three years ago. As of June 2021, basically one-third (32.9%) of broadband users were using over 500 GB. While the trends aren't surprising, forward projections suggest there will be pressure on ISPs who have a certain level of data caps. The usage patterns also suggest the bandwidth pressure T-Mobile and Verizon may face with customers with their respective fixed wireless broadband buildouts.



Source: OpenVault, OVR Broadband Insights Report 2021

The Issues with the FCC's Fiber Internet Provider List



% of provider's footprint with access to fiber-optic home Internet plans

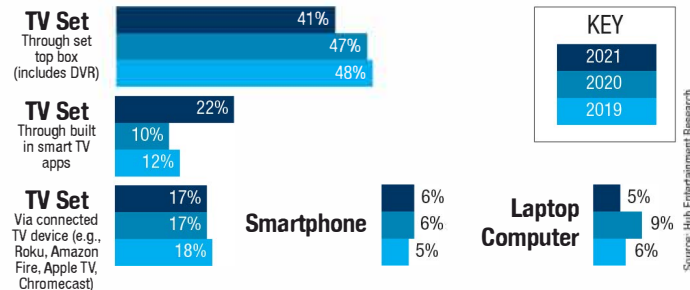
Zipty Fiber	50.19%	Alice	6.39%
CenturyLink	38.34%	Cox	5.14%
WOW	6.44%	Frontier	38.18%
Google Fiber	92.74%	AT&T	30.26%
Verizon	64.35%	Windstream	26.26%
		Xfinity	0.2%
		Sparklight	0.7%
		Spectrum	0.39%

WHAT'S INTERESTING: The FCC's list of the fiber reach of major broadband ISPs exemplifies the precarious issues surrounding Internet policy definitions. First, it's not clear all these numbers are accurate, considering Google Fiber, by definition, is seemingly at 100%, but only listed at 92.7%, while CenturyLink's self reported figure is about 10% (2.5M HP across 21M locations), versus the FCC's 38.3%. And "fiber," of course, doesn't necessarily equate to speed. Xfinity offers 1 Gbps service, like WOW, Verizon and Zipty, and remains more than competitive in the eyes of Wall Street even though its fiber reported number is 0.2%.

Smart TVs Rise as "Default" TV Device

What's your default 'device' for TV viewing?

(The first one you turn on when you want to watch)

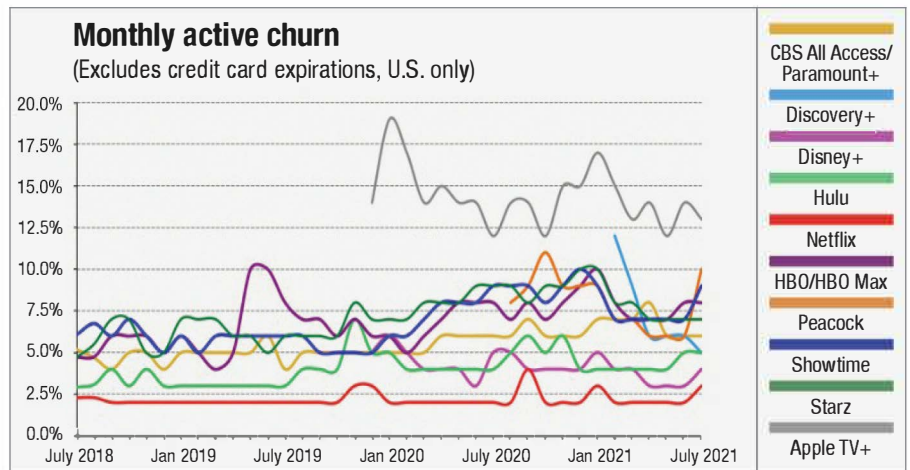


Source: Hub Entertainment Research

WHAT'S INTERESTING: Much has been made about programming viewing shifts over the past 18 months with the pandemic, as streaming subscriptions rise even as there has been some moderation in pay TV loss trends. But there are greater shifts on the device side, as Hub Entertainment Research reports consumers use smart TVs as their default TV device in 22% of cases. That's nearly double the rate of two years ago. Internet-connected devices (Roku, etc.) have held largely steady, while STB default usage rates have fallen from 48% to 41%.

Major DTC Providers See Summer Churn Uptick

WHAT'S INTERESTING: Netflix, Disney+, Showtime and Peacock all saw upticks in churn this summer, according to Antenna Data, while Apple TV continues to plug away at its high churn as more content comes to the service. COVID production delays and pandemic openings impacted results, as perhaps more competition from Discovery+. New patterns of volatility will likely emerge as the DTC battle now becomes fully joined with all the major players working through the early maturation stages of their businesses.



Source: Antenna Data