Running the Numbers

"Datapoints" is researched and written by Karen Brown

There's No Denying the DDoS Threat

14% CAGR 2018-2023
Number of DDoS attacks: Attacks will almost double to 15.4 million by 2023 globally. **(In millions)**

Bar chart values:
- 2018: 7.9
- 2019: 9.5
- 2020: 10.8
- 2021: 12.1
- 2022: 13.9
- 2023: 15.4

WHAT'S INTERESTING: As businesses flock to the Internet, so do the cyber-wolves. Distributed denial of service attacks — deliberate data request floods aimed at overloading a company or network's servers, with the goal of shutting down its operations — are on the rise, up 20.3% YoY in 2019, totaling 9.5 million incidents. Not surprisingly, Internet-dependent companies are investing in DDoS mitigation services, which is good news for B2B networking providers. But DDoS attacks also represent a huge threat for these network providers' own operations, forcing them to beef up their network security to keep the wolves at bay.

SOURCE: CISCO ANNUAL INTERNET REPORT, 2018-2023

What Streamers Want

Importance of video streaming attributes
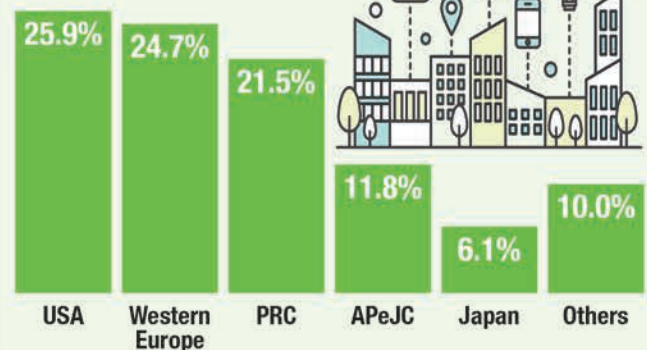Top 2 Box (out of 5 — extremely/very important)

Attribute	%	Attribute	%
Cost	84%	Availability across devices	58%
Ease of use	81%	Resolution available (4k Ultra HD, HD)	56%
Variety/availability of content	79%	Skipping ads features	52%
Streaming/playback quality	77%	Ad-free	48%
Speed (menu selection, loading content)	74%	Content available for downloading/offline	40%
Accessibility/search of desired content	71%	Menu recommendations	38%
		Content available live	37%

WHAT'S INTERESTING: About 93% of U.S. consumers say they will either keep or increase their streaming services, so what's driving their decisions? Cost, ease-of-use and a big selection of titles, apparently. That sounds less like a domain for daring early adopters and more like a mainstream, commoditizing service category. Also of note is that 58% of streaming users want availability across devices, an indication they are even more willing to watch on a mobile screen rather than a living room TV. And they also are impatient, with 74% saying that speed of content loading is important. So OTT video is becoming like fast food: cheap, quick and easily digestible on the go.

SOURCE: FEBRUARY 2020 NIELSEN TOTAL AUDIENCE REPORT

Smart Cities Grow Smartly

Top region based on 2020 market share
Value (constant annual)

Bar chart values:
- USA: 25.9%
- Western Europe: 24.7%
- PRC: 21.5%
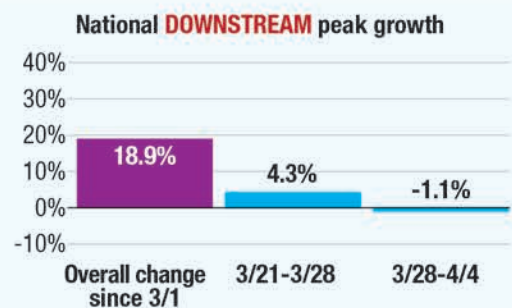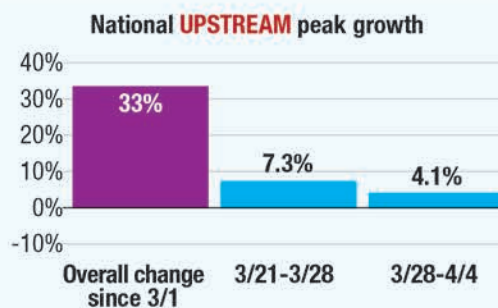- APeJC: 11.8%
- Japan: 6.1%
- Others: 10.0%

WHAT'S INTERESTING: Spending on smart city initiatives continues, projected to rise 18.9% and top $124 billion worldwide by the end of this year — and about 25.9% of the opportunity will be in the U.S. It's big growth, but you might be better off thinking small, as about 70% of the opportunity lies with cities spending less than $1 million annually on smart city technology. And even there, cities will be focusing on the basics such as utility monitoring, which represent about 33% of the opportunity compared to more flashy, video-centric applications such as public safety (18%) and intelligent traffic monitoring (14%).

SOURCE: IDC WORLDWIDE SMART CITIES SPENDING GUIDE — USE CASE FORECAST 2019H1

Broadband Survives COVID-19

Observed increase in peak consumer usage. Overall change in pre-COVID Internet usage since 3/1/20 compared to the weekly usage change.

National UPSTREAM peak growth
- Overall change since 3/1: 33%
- 3/21-3/28: 7.3%
- 3/28-4/4: 4.1%

National DOWNSTREAM peak growth
- Overall change since 3/1: 18.9%
- 3/21-3/28: 4.3%
- 3/28-4/4: -1.1%

WHAT'S INTERESTING: In many ways, our broadband networks appear to be more resilient than we are. Since March 1, U.S. cable broadband network usage has surged, up 18.9% downstream and 33% upstream as a majority of Americans found themselves under stay-at-home orders. Peak upstream hours appear to have shifted from late evening to late afternoon, as more Americans work from home. Nevertheless, cable provider backbone networks have shown few, if any signs of congestion. That's a good story for cable operators, reinforcing the value and sturdiness of their broadband networks. Looking ahead, cable operators may face financial exposure as some customers struggle to pay their service bills, but compared to other sectors, they are better inoculated against damage from the COVID-19 pandemic.

SOURCE: NCTA COVID DASHBOARD