

Methodology: Measure entire 1st half of 2019

Total Volume

(not peak)

Fixed + Mobile + WiFi + Satellite (hundreds of operators worldwide)



2 WEB
13.1%(-3.8) **↓** 10.3%(-10.6) **↑**

SOCIAL 6.1%(+1.1) ↓ 7.6%(+3.8) **1**

8 1.6%(-0.1) **♣** 8.3%(-0.1) **↑**

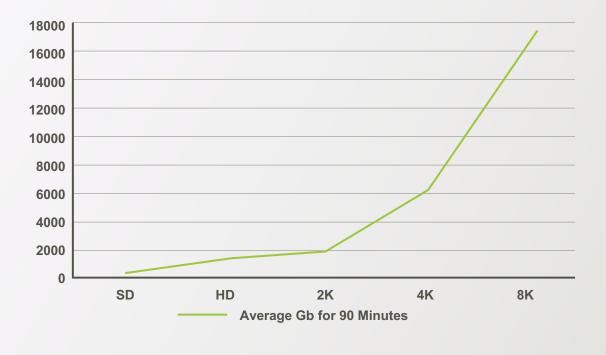
60% InterNet **TRAFFIC** isvideo



Global Traffic Share: How much video can you watch? Phenomena Report

2 WEB
13.1%(-3.8) **↓** 10.3%(-10.6) **↑**

8 1.6%(-0.1) **♣** 8.3%(-0.1) **↑**



Global Traffic Share: What if...?



GLOBAL APPLICATION CATEGORY TRAFFIC SHARE

1 VIDEO STREAMING

2 WEB
13.1%(-3.8)

■ 10.3%(-10.6)

■

3 GAMING 8.0%(0.2) ♣ 4.9%(+2.2) **↑**

5 FILE SHARING 4.2%(±1.4) ■ 30.2%(±8.1) ♠

MARKETPLACE 2.6%(-1.9) **↓** 1.6%(-0.2) **↑**

7 SECURITY AND VPN
1.6%(+0.2) ▼ 5.3%(-2.1) ★

8 MESSAGING 1.6%(-0.1) ♣ 8.3%(-0.1) **1**

9 CLOUD 1.4%(+0.01) **↓** 9.0%(-0.3) **1**

10 AUDIO STREAMING 0.4%(-0.5) ₩ 0.3%(-0.1) 1 What if 10% more video was added to the internet?

Video would be 62% of downstream traffic

What if 10% of video went from SD to HD?

Video would be 66% of downstream traffic

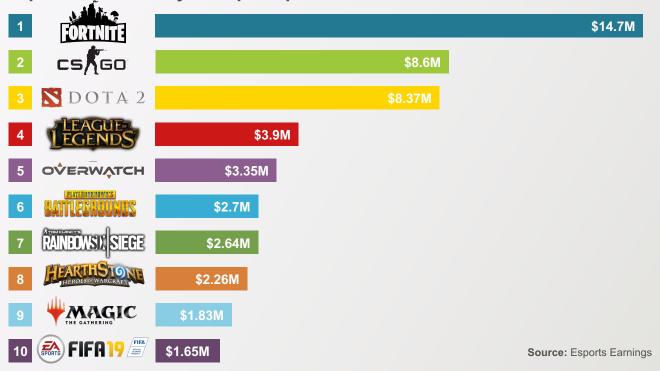
What if 10% of video went from SD to 4K?

Video would be 77% of downstream traffic



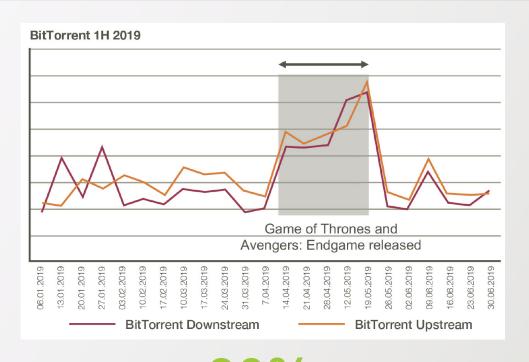


Top 10 ESPORTS by total prize pool so far 2019:







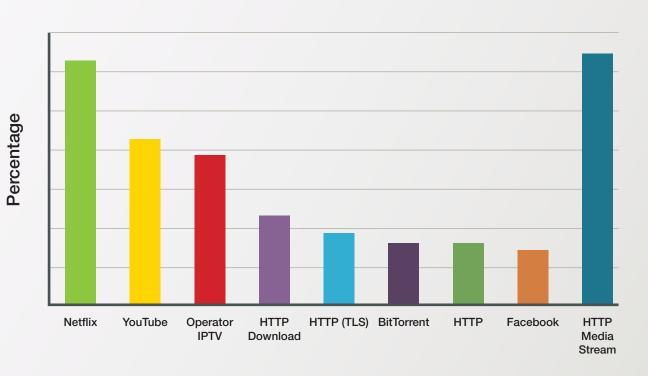


File Sharing is over 30% of Upstream Traffic



- 2 NETFLIX 12.6%(-2.3) ♣ 2.1%(-0.8) **1**

- 6 HTTP (TLS) 4.4%(+0.4) ♣ 2.2%(+0.1) ★
- **7** HTTP 3.0%(-0.1) **♣** 3.5%(-1.2) **↑**
- 8 FACEBOOK 3.0%(+1.2) ♣ 2.2%(+0.7) ♠



GLOBAL APPLICATION TRAFFIC SHARE

- 1 HTTP MEDIA STREAM
- 2 NETFLIX 12.6%(-2.3) **↓** 2.1%(-0.8) **↑**
- 3 YOUTUBE 8.7%(-2.9) ♣ 2.4%(-0.6) ♠
- 4 OPERATOR IPTV
 7 2%(±2 8) 3.5%(-0.6) ★
- 5 HTTP DOWNLOAD
- HTTP (TLS)
- **7 HTTP**3.0%(-0.1) **♣** 3.5%(-1.2) **↑**
- **8** FACEBOOK 3.0%(+1.2) ♣ 2.2%(+0.7) ★
- 3.0%(+1.2) ₹ 2.2%(+0.7) ₹
- **10** BITTORRENT 2.4%(+0.2) ↓ 27.5%(+6.4) ★

12.6% of worldwide downstream traffic

Source: Sandvine 1H2019 Global Internet Phenomena Report

- 2 NETFLIX 12.6%(-2.3) **↓** 2.1%(-0.8) **↑**

- 6 HTTP (TLS) 4.4%(+0.4) ♣ 2.2%(+0.1) ♠
- **7** HTTP 3.0%(-0.1) **↓** 3.5%(-1.2) **↑**
- FACEBOOK 3.0%(+1.2)↓ 2.2%(+0.7) **↑**



BitTorrent®

is over

over

27%

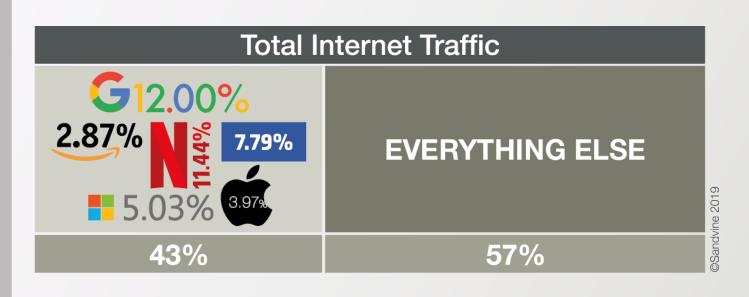
of Downstream Traffic

of Upstream Traffic

Application Traffic Share: Six Brands Drive Traffic

- 2 NETFLIX 12.6%(-2.3) **↓** 2.1%(-0.8) **↑**

- 6 HTTP (TLS) 4.4%(+0.4) ♣ 2.2%(+0.1) ♠
- **7** HTTP 3.0%(-0.1) **↓** 3.5%(-1.2) **↑**
- 8 FACEBOOK 3.0%(+1.2) ♣ 2.2%(+0.7) ♠



Global Application Traffic Share: Brands

2 NETFLIX 12.6%(-2.3) **↓** 2.1%(-0.8) **↑**

OPERATOR IPTV 7.2%(+2.8) ♥ 3.5%(-0.6) **↑**

5 HTTP DOWNLOAD
4.5%(+0.8) ♣ 1.0%(-0.3) ♠

6 HTTP (TLS) 4.4%(+0.4) ♣ 2.2%(+0.1) ♠

7 HTTP 3.0%(-0.1) **♣** 3.5%(-1.2) **↑**

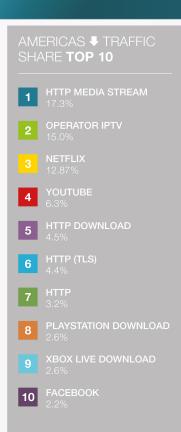
8 FACEBOOK 3.0%(+1.2)**↓** 2.2%(+0.7) **↑**

Internet Brand	Connections	Downstream	Upstream	Overall
Google	30.35%	12.33%	9.82%	12.00%
NETFLIX	0.99%	12.60%	2.19%	11.44%
facebook.	7.52%	8.14%	5.48%	7.79%
Microsoft	2.70%	5.42%	2.45%	5.03%
	3.80%	3.65%	6.11%	3.97%
amazon	0.47%	3.15%	1.02%	2.87%



Americas Downstream: Operator IPTV and OTT

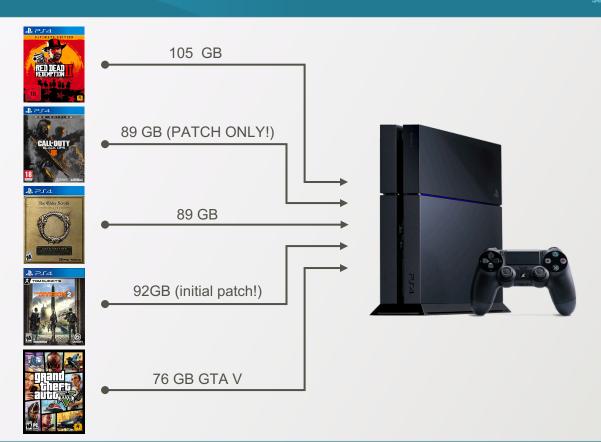






AMERICAS → TRAFFIC SHARE **TOP 10**

- 1 HTTP MEDIA STREAM
- OPERATOR IPTV
- 3 NETFLIX
- 4 YOUTUBE
- 5 HTTP DOWNLOAD
- 6 HTTP (TLS)
- 7 HTTP
- 8 PLAYSTATION DOWNLOAD 2.6%
- 9 XBOX LIVE DOWNLOAD
- 10 FACEBOOK



Americas Upstream: OTT Exclusives Drive File Sharing Phenomena Report

AMERICAS ★ TRAFFIC SHARE **TOP 10**

- OPERATOR IPTV
- 2 BITTORRENT UPLOAD
- 3 IPSEC VPN
- 4 NETFLIX
- 5 HTTF 4.4%
- 6 RTP
- 7 HTTP MEDIA STREAM
- 8 ICLOUE 3.7%
- 9 HTTP (TLS 3.6%
- 10 DROPBOX 2.5%

Popular Exclusives by OTT Service

NETFLIX

YouTube

















hulu

Coming soon!















Today, reliable broadband connections and simplified technology lets users easily access content (including live TV) in a manner that violates content licensing agreements. This trend is expected to grow due to the ease and relative low cost of accessing unlicensed content

Video on Demand

An extensive content library of select television shows and movies available for playback at any time.

Example: All Game of Thrones episodes



Catch-Up

A sliding window of on-demand content, acting like a DVR in the cloud.

Example: All programs that aired on a channel in the last seven days



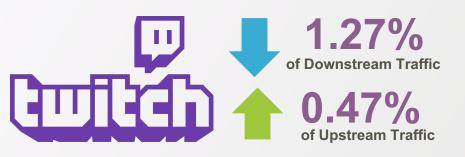
Live Video

Video streams that are available as something is aired/broadcast/transmitted. **Example:** Sunday night's new episode of Game of Thrones; professional sports



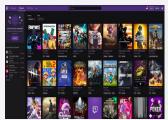
EMEA **♣** APPLICATION TRAFFIC SHARE **TOP 10**

- 1 HTTP MEDIA STREAM
- 2 NETFLI
- 3 YOUTUBE
- 4 BITTORRENT
- 5 AMAZON PRIMI
- FACEBOOK 3.2%
- 7 PLAYSTATION DOWNLOAD
 3.1%
- 8 QUIC 3.1%
- 9 HTTP (TLS) 3.0%
- 10 TWITCH 3.0%



7th
Most popular Video
Streaming Application













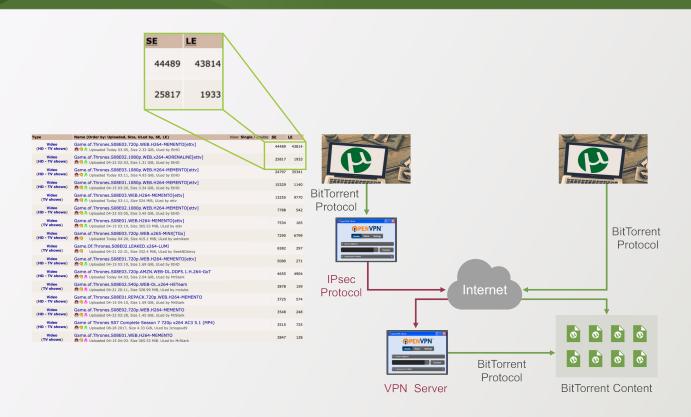




EMEA Upstream: File Sharing Spikes

EMEA APPLICATION TRAFFIC SHARE TOP 10

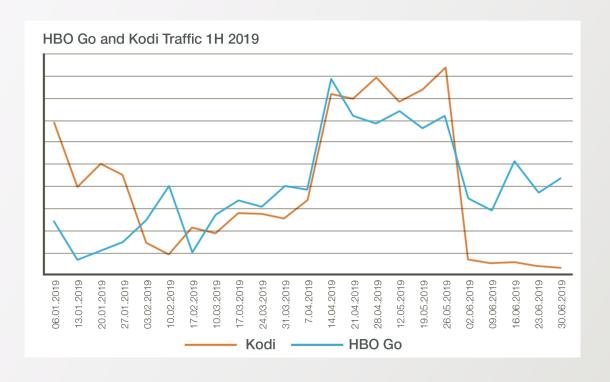
- BITTORRENT TRANSFER
- 2 HTTP MEDIA STREAM 10.6%
- 3 WEB RTC
- 4 GOOGLE
- 5 YOUTUBE
- 6 RTP 2.1%
- 7 IPSEC VPN
- 8 FACEBOOK 1.8%
- 9 WHATSAPF
- 10 HTTF



Spotlight: GoT HBO Go & Kodi Traffic Spike



- BITTORRENT TRANSFER
- 2 HTTP MEDIA STREAM
- 3 WEB RTC
- 4 GOOGLE
- 5 YOUTUBE
- 6 RTP
- 7 IPSEC VPN
- 8 FACEBOOK 1.8%
- 9 WHATSAPP 1.7%
- 10 HTTP



APAC Downstream: Facebook Rules the Roost



APAC ♣ APPLICATION TRAFFIC SHARE **TOP 10**

- 1 HTTP MEDIA STREAM
- 2 HTTP DOWNLOAD
- 3 HTTP (TLS) 6.8%
- 4 NETFLIX
- 5 FACEBOOK VIDEO
- 6 FACEBOOK
- 7 INSTAGRAM
- 8 WINDOWS UPDATE 4.6%
- 9 YOUTUBE 4.6%
- 10 BITTORREN 4.5%

Internet Brand	Connections	Downstream	Upstream	Overall
facebook.	7.10%	5.53%	4.44%	5.34%
D f LIVE	0.17%	6.00%	1.07%	5.26%
facebook Messenger	1.10%	0.0001%	0.002%	0.12%
O Instagram	1.58%	5.31%	2.61%	4.90%
WhatsApp	3.80%	0.0001%	6.11%	0.21%
oculus	0.005%	0.0002%	0.005%	0.02%

APAC Upstream: Feeling Cloudy

APAC ★ APPLICATION



of all APAC upstream traffic











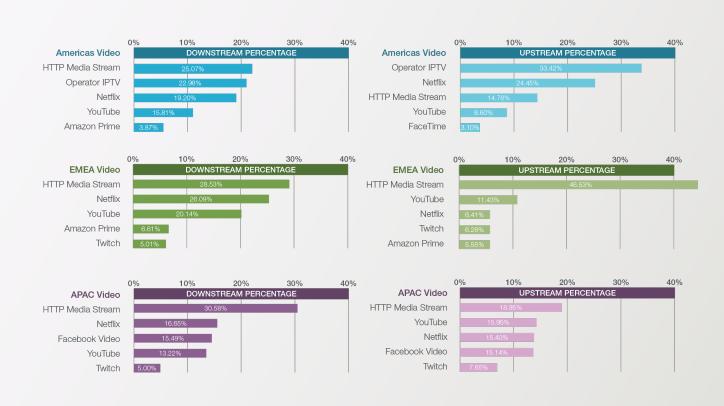






September 201

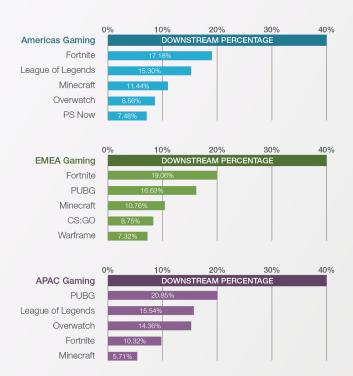


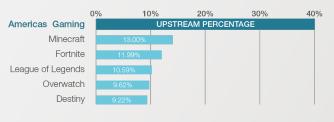


Gaming Spotlight: Franchises Prosper

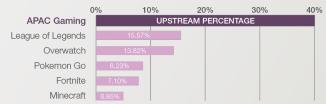


- LEAGUE OF LEGENDS
- 3 FORTNITE 9.5% ■ 5.6% ■
- **4** OVERWATCH 7.8% 8.9% ■
- 5 DESTINY
- 6 MINECRAFT
- 7 RESPAWNABLES
 6.3% ♣ 4.9%♠
- 8 WARFRAME 2.9% ♣ 0.8%**↑**
- **10** WORLD OF WARCRAFT 2.6% 2.2% ↑





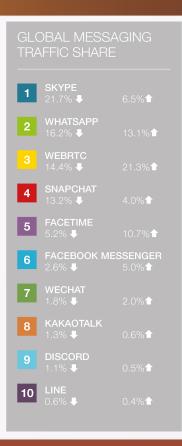


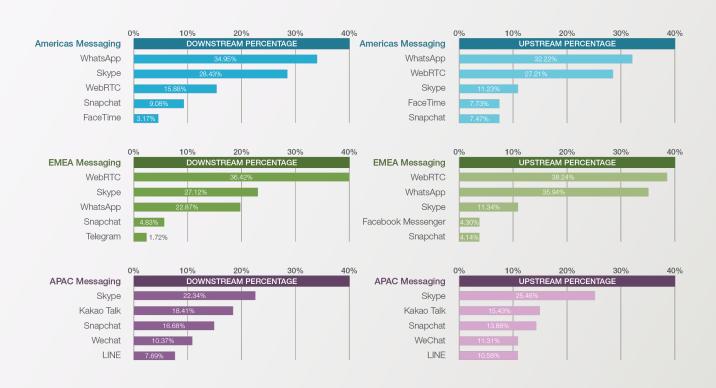


Social Networking Spotlight: Facebook dominates



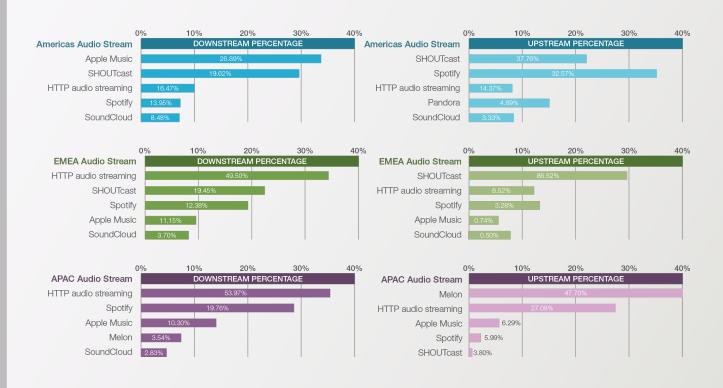






September 2019







Contact us at phenomena@sandvine.com

