

LIVE STREAMING JOINS SOCIAL MEDIA

EXTRACT FROM THE
ERICSSON MOBILITY REPORT

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Consumers are increasingly using live video streaming apps to interact with friends, family and followers. Although live streaming has existed for some time in South Korea, there has been a recent surge in popularity for live video apps in markets like the US

Streaming apps focusing on user generated content (UGC), including Periscope and Bambuser, are being used by millennial power users and video-centric smartphone users in the US (see the box on the right for descriptions of user groups). In addition, smartphone users who are largely browser-centric or social-centric do find live streaming interesting and intend to use it going forwards. This is likely to drive overall video data traffic growth — both cellular and Wi-Fi— as consumers move beyond on-demand video to live streaming viewing behavior.

The inclusion of live streaming capabilities in social apps, such as Facebook and Twitter, is likely to make it easier for consumers to watch both user-generated and professionally made live video content. Based on consumer interest, the proportion of smartphone users in the US using live streaming apps is likely to triple in the coming year, while in South Korea it is likely to double.

Subsequently, this growth is likely to set new demands on network performance in order to offer consumers an optimal live video experience over mobile broadband networks.

Moving beyond on demand

YouTube still dominates video traffic in most mobile networks, accounting for between 40–70 percent of total video traffic for almost all measured networks — regardless of terminal type. For smartphones, social networking is the second largest traffic volume contributor, with an average share of 15 percent in measured networks. Video traffic is likely to further increase as new apps with embedded live streaming emerge.

South Korea is arguably a leader in live streaming. For example, AfreecaTV is a popular app in the country, which allows anyone to freely broadcast live video.

While live streaming has been a success in South Korea, the global market is fragmented due to different content

User groups based on applications and services consumed via smartphones

Smartphone users can be segmented into six different groups based on the types of apps and services they use on their phones and how often they use them. Power users consume twice as much data on average per month than other smartphone users.



POWER USERS

Daily users of at least nine services



VIDEO-CENTRIC USERS

Users streaming videos on a daily basis



SOCIAL MEDIA-CENTRIC USERS

Users who access social networks on a weekly basis or more and instant messaging on a daily basis



BROWSER-CENTRIC USERS

Users who browse the internet at least weekly



UTILITY USERS

Weekly users of utility applications such as email, voice calls and internet calls



LIGHT DATA USERS

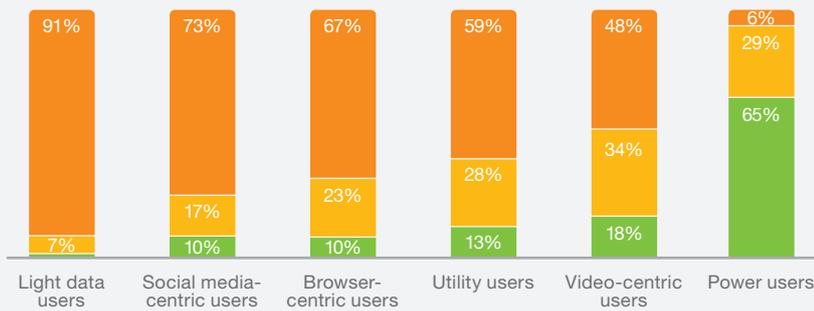
Users who don't access nine or more services on a daily basis

Source: Ericsson ConsumerLab

preferences and emerging trends. According to Ericsson ConsumerLab analysis of App Annie data, South Koreans watched more than 13 hours of live video broadcast over AfreecaTV in August 2016 — averaging 115 app sessions a month. In comparison, US smartphone users spent an average of around 1.5 hours using Periscope via Android smartphones over the same period. The differences in live video viewing behavior are also visible by age groups. In the US, 1 in 5 millennial smartphone users (age 20–34) has watched live UGC using apps, while only 1 in 10 teens (age 15–19) has done so. This is not to say that teens aren't interested in live streaming; in the US they spend, on average, around one hour a week watching live eSports content on apps like Twitch.¹

¹ Ericsson ConsumerLab, TV and Media Study (2016)

Usage of live streaming apps by user groups in the US (percent)



Source: Ericsson ConsumerLab, Experience Shapes Mobile Consumer Loyalty study (2016)
Base: Smartphone mobile broadband users



In the US, power users are the predominant users of live streaming apps

- Don't do this and not interested in starting to use soon
- Don't do this but interested in starting to use soon
- Already do this

Conversely, in South Korea, UGC live video streaming is well established with both teens and older generations of smartphones users. This is evidenced by the fact that 33 percent of teens and 28 percent of those aged over 45 have used UGC live video streaming apps.

Live streaming is set to go mainstream

In the US, 7 percent of all smartphone users are power users, while browser-centric and social media-centric users constitute 22 and 25 percent respectively. Today, 65 percent of all power users in the US have used live streaming apps such as Periscope, while only 10 percent of social media-centric and browser-centric users claim they use such apps. This can be compared with South Korea, where live streaming has existed for some time and the usage of live streaming apps has moved beyond power users, with 26 percent of social media-centric and an equal share of browser-centric users engaged in live streaming.

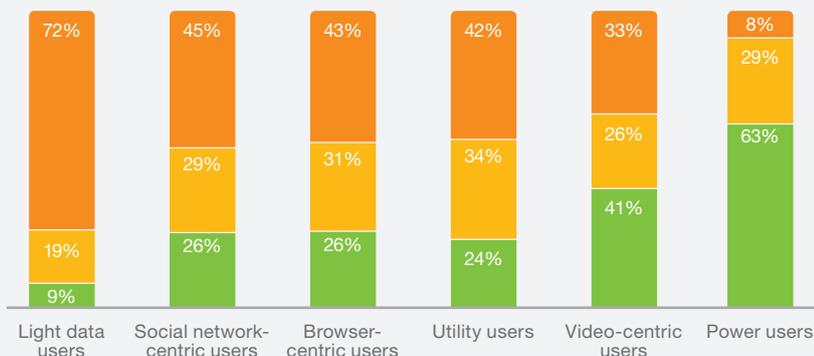
One of the reasons for the slow uptake of live streaming in markets beyond South Korea is that the number of people and brands creating live videos is still a small fraction of those who are watching.

Facebook Live is now available to the social network's 1.6 billion plus users and, as a result, a lot more consumers are likely to start streaming their activities live. One third of Facebook users on smartphones across 14 markets claim that they have watched a live video of a celebrity, politician or other influencer over the Facebook app before Facebook Live was launched to all users globally in April 2016.

Based on inclusion of live video streaming capabilities in social apps, the proportion of social media-centric and browser-centric users using live streaming apps is likely to double. Overall, the proportion of smartphone users accessing live video apps is likely to triple in the US, driving growth in wireless data traffic that is both cellular and Wi-Fi.

Around one in five smartphone users in the US expresses an interest in live video broadcast,² but there are twice as many smartphone users in high growth markets like India, Indonesia, Brazil and Oman who are interested in such apps. This indicates that, over the next 12 months, there will be a bigger appetite for live video streaming beyond the US.

Usage of live streaming apps by user groups in South Korea (percent)



Source: Ericsson ConsumerLab, Experience Shapes Mobile Consumer Loyalty study (2016)
Base: Smartphone mobile broadband users

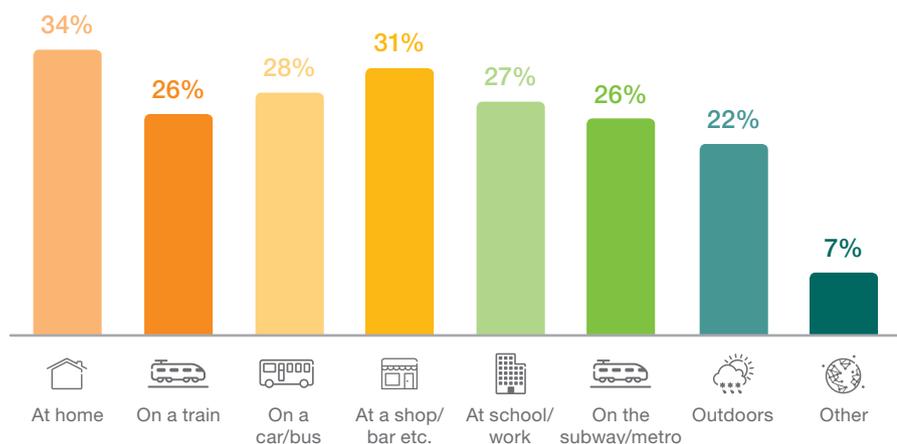


In South Korea usage of live streaming apps is more widespread

- Don't do this and not interested in starting to use soon
- Don't do this but interested in starting to use soon
- Already do this

² Ericsson ConsumerLab, Experience Shapes Mobile Consumer Loyalty study (2016)

Users who experience streaming issues while using video apps on a mobile broadband network in different locations (percent)



Users are experiencing streaming issues with videos on apps in a range of locations

Source: Ericsson ConsumerLab, Experience Shapes Mobile Customer Loyalty (2016)
Base: Smartphone mobile broadband users accessing video apps across 14 markets

Creating a high-definition video experience

Consumers expect consistent high-quality network performance to stream videos. Research across 14 markets revealed that video streaming issues are common, including delays in loading and re-buffering.³ Roughly one in every 5 smartphone users surveyed across the 14 markets globally faces video streaming issues on a daily basis.

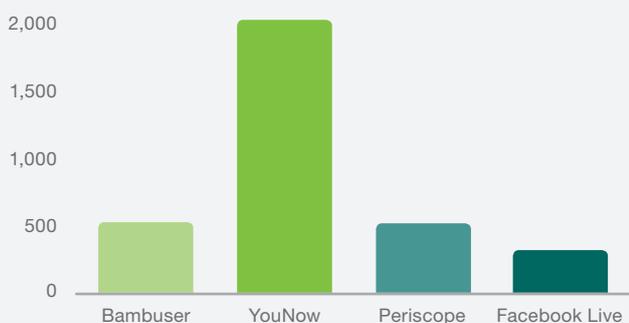
Live video streaming has changed the way people interact with one another and experience live events, such as football games and concerts. A survey of 800 smartphone users attending the 2016 summer games in Rio de Janeiro found that one third engaged in broadcasting live video at least once, before, during, or right after an event.⁴ Live streaming apps are also transforming citizen journalism by making it accessible to anyone with a smartphone, ushering in the potential future of real-time journalism.

Developments in live video streaming have raised consumer expectations of network performance when out and about. The figure above suggests that 22 percent of smartphone

users across the 14 markets face video streaming issues while outdoors – irrespective of whether these are on-demand video streaming apps or live streaming apps like Periscope, Bambuser or AfreecaTV. It also shows that 34 percent face the same issues using these apps over mobile broadband while at home. Given the highly mobile video viewing behavior spread throughout the day, this indicates that improving the video streaming experience is crucial, and should result in wider adoption of live streaming apps and an increased demand for cellular data connectivity.

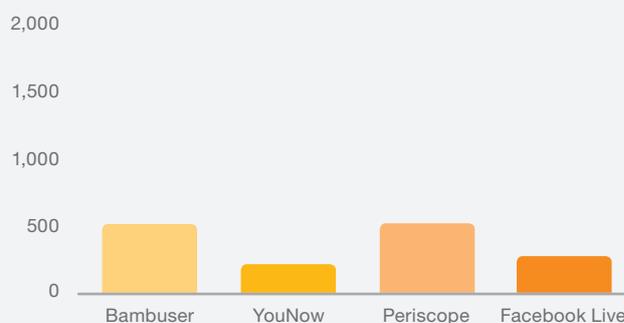
The figures below indicate the minimum data throughput necessary – both uplink and downlink – for an acceptable live streaming experience using various popular apps. YouNow Live stands out because it needs 2 Mbps in the uplink, which is perhaps related to its affiliation with professional content broadcasters, such as The Huffington Post, MTV and the Shorty Awards. While live streaming is currently a very small proportion of total traffic, as it grows it will set more stringent requirements on network performance.

Minimum bit-rate required to broadcast video in uplink (kbps)



Source: Ericsson Smartphone Lab

Minimum bit-rate required to watch video in downlink (kbps)



Source: Ericsson Smartphone Lab

³ Ericsson ConsumerLab, Experience Shapes Mobile Customer Loyalty (2016)
⁴ Ericsson ConsumerLab, Aiming Higher, summer games (2016)

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