

Factsheet

Tests – Social Media

Social Media

Social media

This test measures the round-trip latency and reachability of a selection of major social media services, taking into account different endpoints that the social media service may use for different content types.

A single social media site can use a variety of endpoints for different content types (e.g. audio, video) and different activities (downloading and uploading). For example, Facebook use a different set of servers when allowing users to download videos versus upload videos. This test captures round-trip latency to all of the supported combinations.

Social media tests supported by the platform
(Please see page 2)

Tests explained

Lack of support for a particular combination is due to the social media service itself not supporting certain content types. For example, the main Facebook app does not support downloading or uploading audio clips (but the Messenger app does).

Note that we have split Instagram into two separate apps, even though they are delivered to the user as a single smartphone app. This is due to the private messaging feature within the Instagram app supporting different functionality that the main part of the app does not. Moreover, the private messaging feature of the Instagram app uses different endpoints to the main part of the app.

For each social media service we determined the endpoints to test against by performing a traffic analysis of how their Android and iOS apps behaved. All apps, with the exception of Facebook and Instagram, use a static set of endpoints. For example, Twitter uses `api.twitter.com` for most operations. Of course, this does not prevent Twitter from geographically load balancing `api.twitter.com` via any cast or DNS based load balancing, but all clients use this single hostname. Facebook and Instagram make use of the Facebook "FNA" caches for retrieval of image and video content. Facebook FNA caches are the on-premises caches that Facebook provides to large ISPs, much like Google do with GGCs or Netflix does with OCAs. The Facebook FNA cache to be used is determined dynamically by the latency measurement client.

Additionally, the latency measurement mechanism can vary for some social media sites too. All services, with the exception of Snapchat, currently use ICMP to measure round trip latency. For Snapchat we instead use HTTP time-to-first-byte for Snapchat because they front all of their API servers (currently hosted in the US) by Amazon's CloudFront reverse proxy, which are distributed globally. To just measure round trip time to their CloudFront hostname would misrepresent the end-to-end latency that a user really experiences.

The social media test fully supports IPv4 and IPv6. It may optionally be run with DNS resolution performed over DNS-over-HTTPS or DNS-over-TLS, instead of using the default system resolver.

Social media tests supported by the platform

	Download - Text	Download - Image	Download - Video	Download - Audio	Upload - Text	Upload - Image	Upload - Video	Upload - Audio
Facebook App	Yes	Yes	Yes		Yes	Yes	Yes	
Facebook Messenger	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Instagram App		Yes	Yes			Yes	Yes	
Instagram Messenger	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
WhatsApp	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Snapchat	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Snapchat	Yes	Yes	Yes		Yes	Yes	Yes	