MOBILE ANALYTICS REPORT

byte mobile

Mobile Analytics Report
February 2012

This special Mobile Analytics Report for the first quarter of 2012 provides insight into the forces driving the explosion in smartphone and tablet usage, the resulting impact on mobile networks, and ways in which mobile operators can leverage network intelligence for profitable data revenue growth. The intent is to provide operators with real-world use cases for creating intelligent policies to generate unique service differentiation and monetization opportunities.

1Q 2012 Highlights

Mobile Video Subscriber Behavior

- The majority of total data traffic generated by iPhones and iPads – 83% – comes from three apps – Media Player, Safari and App Store/iTunes – at 47%, 21% and 15%, respectively.
- The average mobile data subscriber uses the Twitter app for under five minutes and spends nearly twice as long on Facebook. YouTube sessions are similar to Facebook sessions with an average time of 8.5 minutes.
- However, the average Facebook session generates only 120KB, while the average YouTube session produces over 40MB – nearly 350 times the data volume. This is a clear indication of the significant load that video places on mobile networks.

Mobile Advertising

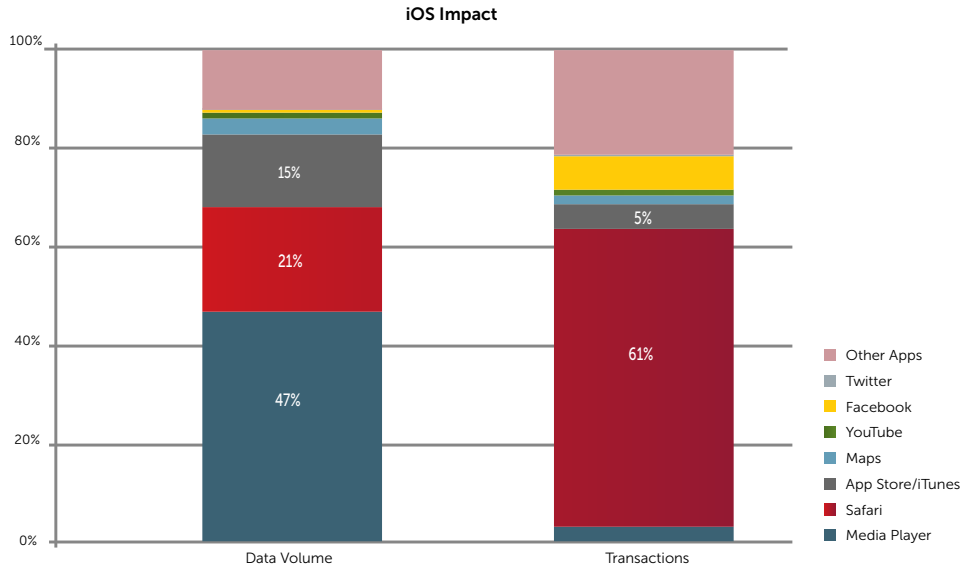
- Android devices generate more advertising transactions and corresponding data volume on mobile networks than iOS devices.
- Google is the dominant source of mobile data traffic generated by advertisements. DoubleClick, AdMob and AdSense are all owned by Google and generate an average of 75% of the total data produced by advertisements.
- As an indication of its richer media content, Apple iAd generates higher data volume per transaction than other advertising networks – more than double in most cases.

Network Impact

- Across geographies, video is now the leading driver of total data traffic on mobile networks at an average of 50%. In some networks, data volume due to video content is approaching 70%.
- Compared with 40% in 1Q 2011, this indicates an increase of 10 percentage points of video-driven data volume on mobile networks worldwide.
- The average Android tablet user generates twice the data volume produced by a comparable Android smartphone subscriber, while the typical iPad user generates three times the data volume produced by a comparable iPhone subscriber.
- A five-minute video at 360p resolution generates approximately 10-15MB of data traffic on the network.
- A five-minute video with high-definition quality on one of the latest LTE devices could generate as much as 75MB of traffic – five times that of a 360p video.

This report anonymously sources data traffic from a global cross-section of Bytemobile customers' mobile networks and provides insight into the current state of the mobile ecosystem.

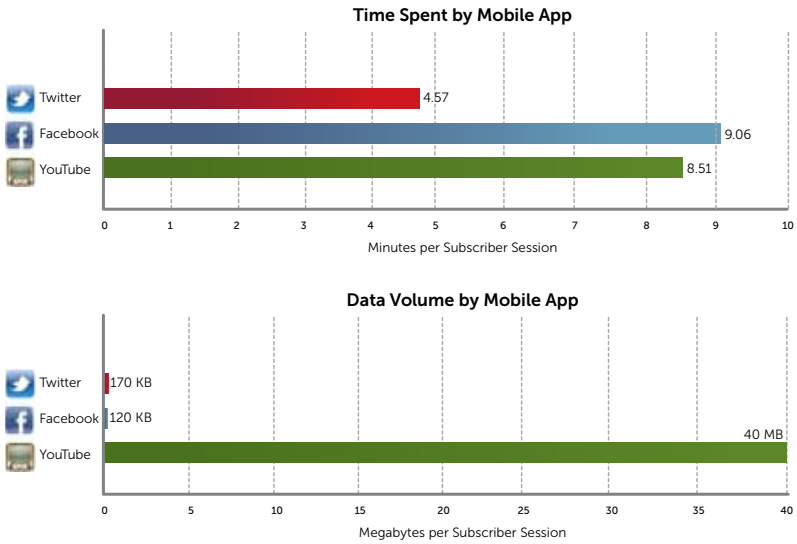
Top 3 Apps Make Up Majority of iOS Usage

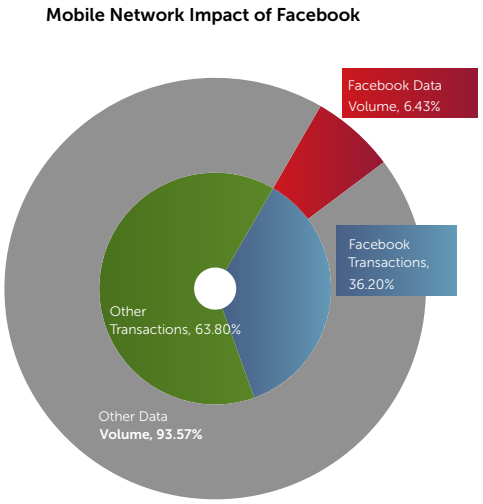


Findings:

- The majority of total data traffic generated by iPhones and iPads – 83% – comes from three apps – Media Player, Safari and App Store/iTunes – at 47%, 21% and 15%, respectively.
- The most used app is Safari, which accounts for over 60% of transactions between the device and the network.

Network Impact Varies by App





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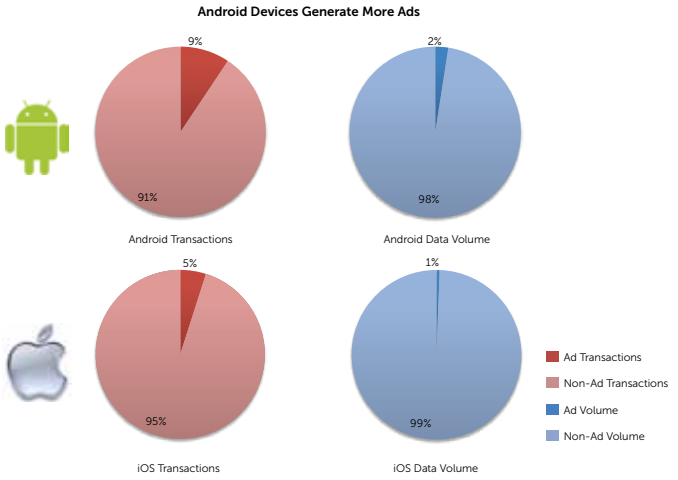
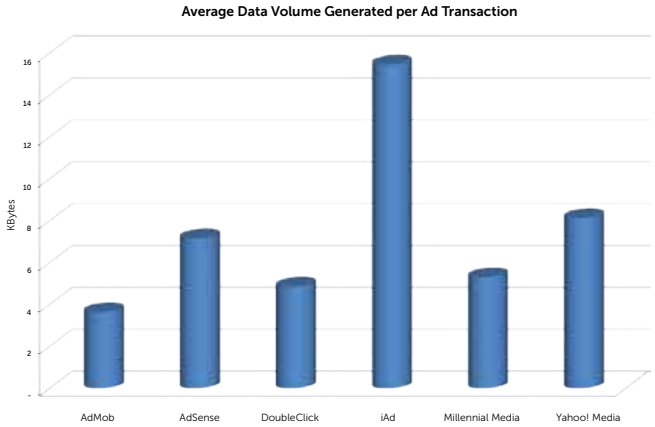
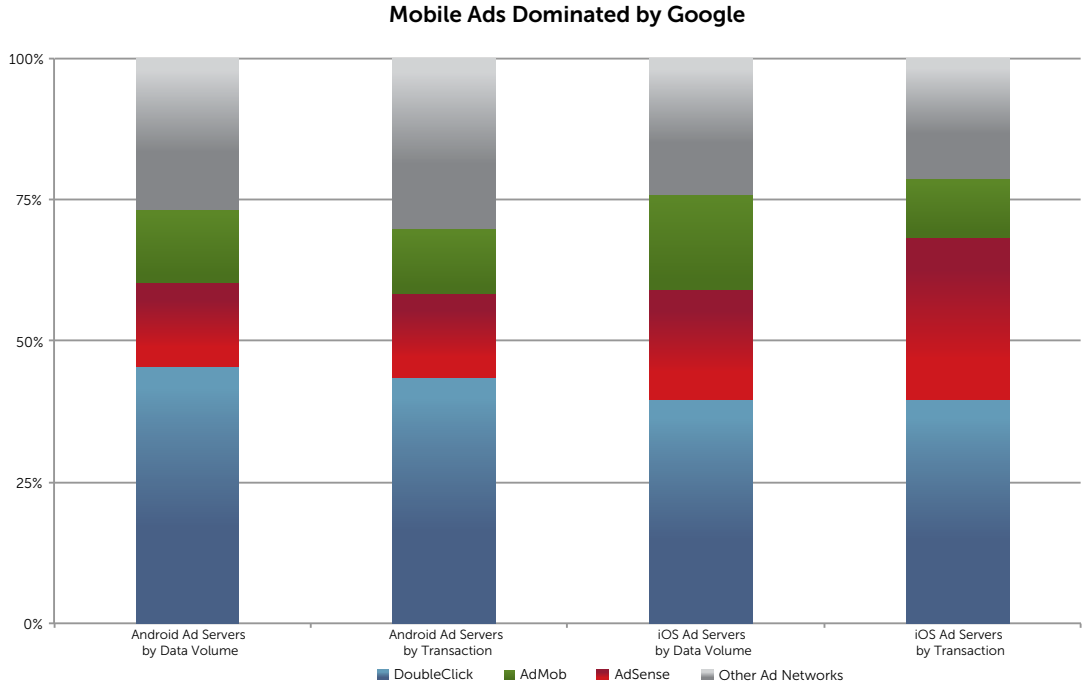
- However, the average Facebook session generates only 120KB, while the average YouTube session produces over 40MB – nearly 350 times the data volume. This is a clear indication of the significant load that video places on mobile networks.
- Facebook is one of the top destinations for mobile subscribers, generating more than 35% of total network transactions. However, Facebook accounts for a relatively low volume of data at approximately 5% of network traffic.

Dissecting the Mobile Advertising Ecosystem







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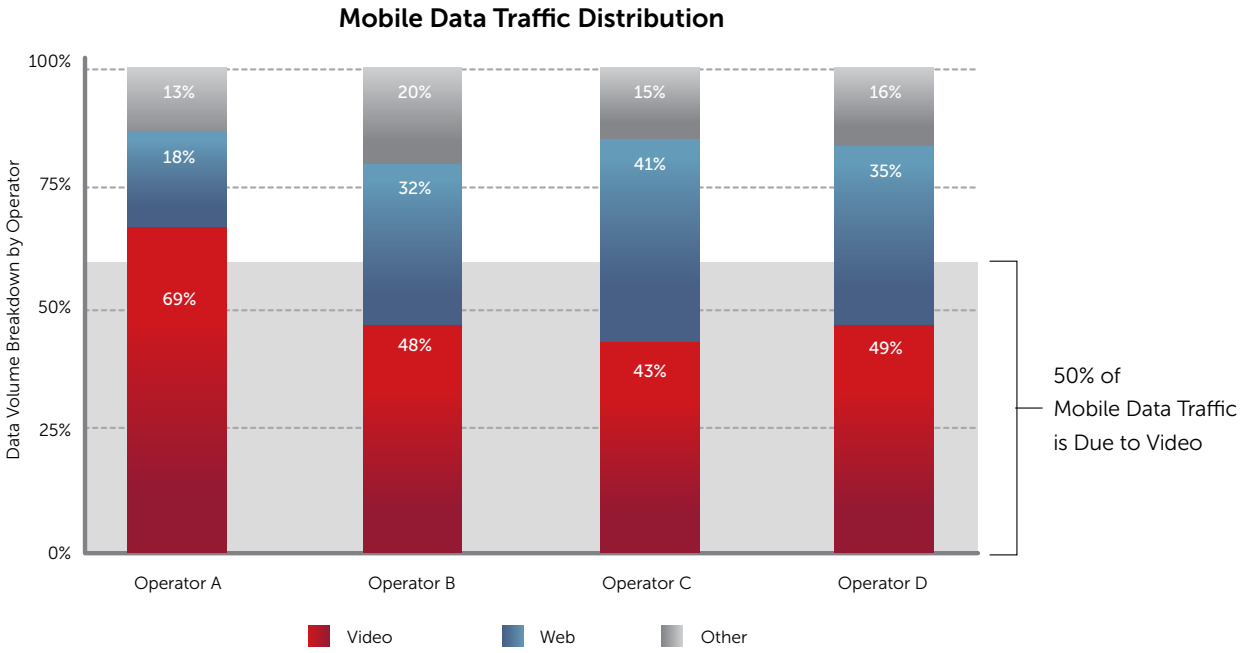
- Google is the dominant source of mobile data traffic generated by advertisements. DoubleClick, AdMob and AdSense are all owned by Google and generate an average of 75% of the total data produced by advertisements.
- Google advertisements on Android devices and on iOS devices have relatively equal impact on the network.
- As an indication of its richer media content, Apple iAd generates higher data volume per transaction than other advertising networks – more than double in most cases.

Mobile Video Continues to Drive Data Traffic



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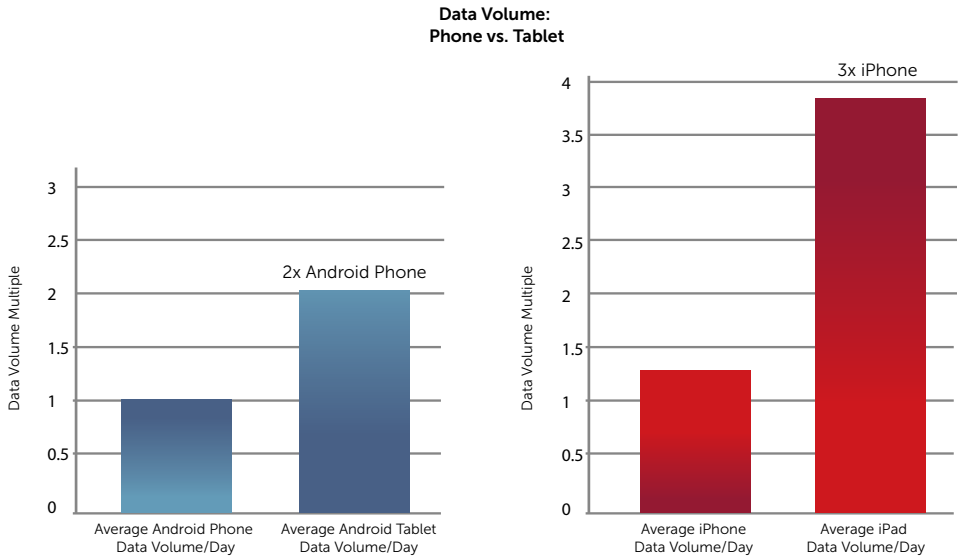
- Compared with 40% in 1Q 2011, this indicates an increase of 10 percentage points of video-driven data volume on mobile networks worldwide.

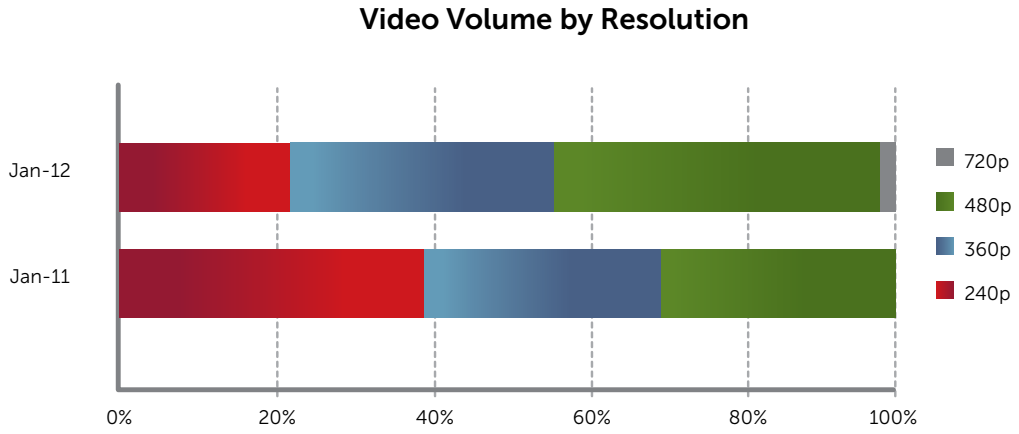
Mobile Data Volume: Smartphones vs. Tablets

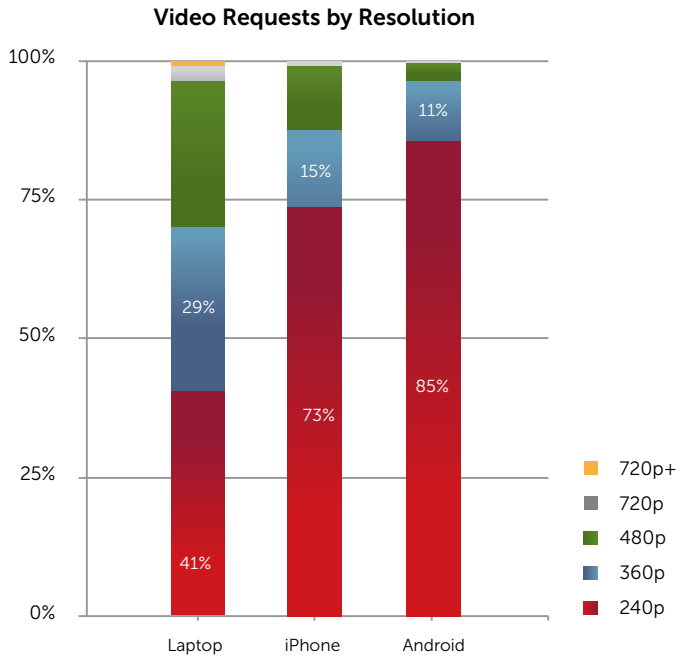


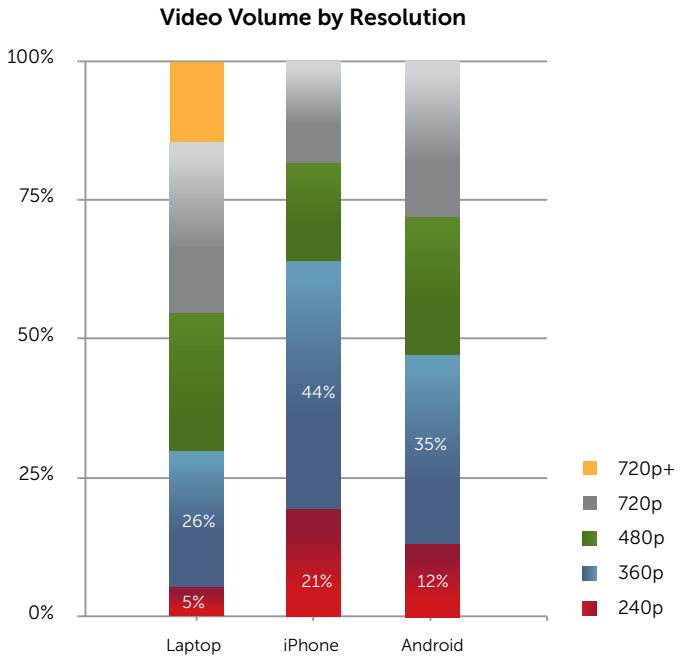
Findings:

- On average, tablets generate 2-3 times the data volume that smartphones do.
- The average Android tablet user generates twice the data volume produced by a comparable Android smartphone subscriber, while the typical iPad user generates three times the data volume produced by a comparable iPhone subscriber.

Resolution = Traffic



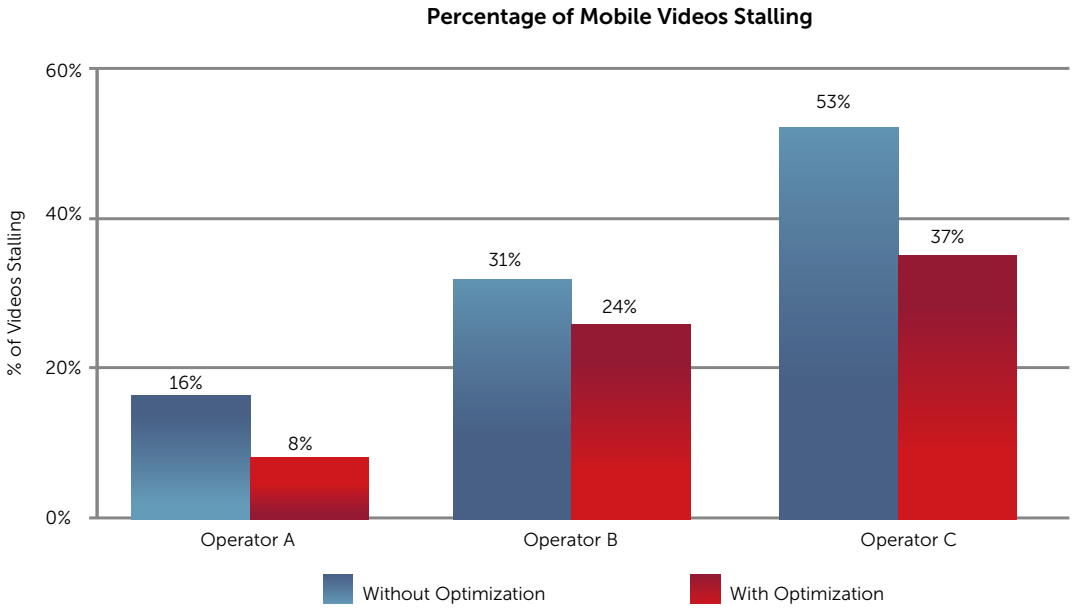




Findings

- Currently, the majority of video served over mobile networks is 360p resolution or less.
- At 360p resolution, a five-minute video generates approximately 10-15MB of data traffic on the network.
- Android subscribers tend to request lower-resolution videos – typically 240p – more often than those with iOS devices; laptop subscribers are least likely to request 240p and other lower-resolution videos.
- As expected, requests for lower-resolution video generate lower data volume than requests for higher-resolution video. Although the majority of iPhones and Android devices request low-resolution video most of the time, it is the few requests for higher-resolution video that have the greatest impact on network capacity.
- A five-minute video with high-definition quality on one of the latest LTE devices could generate as much as 75MB of traffic – five times that of a 360p video.

Less Video Stalling = Better QoE



Findings

- On average, optimization reduces video stalling by 50%, thus improving the user's quality of experience (QoE).

This special report is a collaborative effort between Bytemobile and its partner, Amethon, and leverages each company's analytics tools for understanding subscriber usage of mobile devices to interact with websites and content.

About Amethon Solutions

Amethon Solutions provides mobile web analytics and content tracking solutions to mobile operators, content publishers and mobile marketing agencies with a key focus on smartphone and mobile applications. Customers include tier-one operators in Europe, Asia Pacific and the Middle East, as well as some of the world's premier marketing agencies and content publishers. To learn more, visit: www.amethon.com.

Bytemobile – Smart Capacity at the Core™

Bytemobile's Smart Capacity™ platforms give mobile operators more control of existing network resources to manage escalating subscriber demand for capacity due to video and other bandwidth-intensive content and applications. By deploying these platforms in the mobile network, operators can defer costly network capital expenditures and control operating expenses, while improving revenue growth and profitability. The company's network intelligence solution, Smart Capacity Mobile Analytics, is used to deliver Bytemobile's quarterly Mobile Analytics Report. Bytemobile's technology has been deployed with over 130 operators in more than 60 countries, including 8 of the world's top 10 tier-one carriers. To learn more, visit www.bytemobile.com.

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