

About this report

This report provides an outlook on the mobile communication services market in emerging Asia-Pacific (EMAP). It provides forecasts for voice and messaging services provided by both mobile network operators and over-the-top (OTT) providers. A complete set of forecast results is provided in the accompanying Excel data annex. The forecast is based on several sources:

- Analysys Mason's internal research, including our regional forecasts, Connected Consumer surveys and various trackers in the Future Comms research programme
- interviews with stakeholders in the communications market around the world.

WHO SHOULD READ THIS REPORT

- Strategy and planning executives that are responsible for mobile operators' communication services strategies and partnerships with OTT players.
- Executives in mobile operators' technology and innovations teams that are responsible for developing communication services.
- Marketing executives at vendors of communication services equipment and software, as it will help them to understand the needs of their operator customers and to size the addressable market for their products.

GEOGRAPHICAL COVERAGE KEY METRICS Regions covered in this report: Non-operator/OTT services Voice and messaging Worldwide Emerging Asia - Pacific (EMAP) Active users by device type China Outgoing traffic by device type Indonesia Operator traditional services Malaysia Handsets Philippines Circuit-switched (CS) voice and SMS Forecast results provided in the Outgoing traffic data annex: Operator IP-based services Worldwide Philippines Active users by service type EMAP region Thailand VoLTE, Wi-Fi calling, IP Bangladesh Vietnam messaging China Rest of Outgoing traffic by service **EMAP** India type Indonesia VoLTE, Wi-Fi calling, IP messaging Malaysia Retail revenue Myanmar Voice and messaging Pakistan Average spend per user



¹ The term 'over-the-top' is used throughout this report to refer to services that are made available to the general public via the public Internet. The term is defined from the perspective of network operators and is somewhat controversial for this reason, but is nevertheless widely understood.

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Worldwide: 72 trillion OTT IP messages were sent in 2018; this is 12 times the number of messages that were sent using SMS

OTT communication apps are the default platforms for personto-person communication.

The user bases of OTT communication services continue to grow; we estimate that the top-15 OTT communication services have 7 billion monthly active users (MAUs) combined. Facebook Messenger, WeChat and WhatsApp are the top three services, and had an estimated 1.5 billion, 1.3 billion and 1.1 billion MAUs, respectively, at the end of 2018.¹ There are also several apps that have between 50 million and 700 million MAUs; these apps were able to attain a dominant position in geographical areas (such as Zalo in Vietnam or KakaoTalk in South Korea) or communication niches (such as SnapChat with short video communication).

Fragmentation is steadily decreasing but there is still a significant overlap between app user bases. We estimate that there were around 4 billion users of OTT services at the end of 2018. The average number of communication services per active user was 2.1 in 2016, 2 in 2017 and 1.9 in 2018 and we expect that it will fall further.

OTT communication apps are associated with very high levels of engagement. Facebook disclosed that 100 billion messages were sent each day on Facebook Messenger and WhatsApp combined in 2017; the equivalent figure for WeChat was 38 billion in 2Q 2017. We estimate that, on average, 45 IP messages were sent per smartphone per day in 2018, while this metric for messages over SMS was 2.6 (or 2 per mobile connection).

Figure 3: Messages sent, by message type, worldwide, 2012 -2018 User base in 2018 4 billion individual app users 7.5 billion handsets **─**SMS OTT/Non-operator IP 80 72 trillion Messages sent (trillion) 70 60 50 40 30 20 6 trillion 10 2012 2013 2015 2016 2018 2014



Source: Analysys Mason

¹ The figures for Facebook Messenger and WhatsApp were reported in 3Q 2017 and 4Q 2017, respectively. The WeChat figures are from 4Q 2018.

Worldwide: 80% of smartphone users were active on OTT messaging apps in 2018; the penetration of these apps will slow down in the coming years

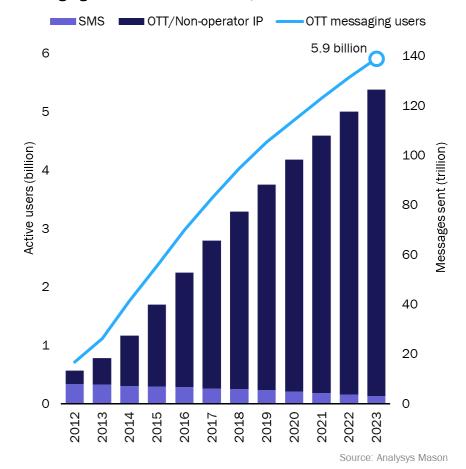
In 2018, 80% of smartphone owners worldwide actively used OTT messaging apps; this figure will reach 86% in 2023.

OTT messaging usage and smartphone penetration have both grown rapidly. The adoption of OTT messaging apps will continue to grow as a result of smartphone penetration growth in developing markets. In developed countries, the take-up of these apps is largely driven by older cohorts that are catching up with younger generations in terms of their communication services and social media adoption and engagement. We forecast that the number of OTT messaging users will reach 5.9 billion in 2023.

The number of messages sent over IP messaging services overtook that of those sent using SMS during 2013; major messaging apps reported having a combined 2 billion MAUs, which is twice that reported at the end of 2012. The total number of reported MAUs of messaging services has grown by 1.2 billion every year since 2013, and we estimate that the number of messaging app users has grown by roughly 600 million every year. We expect that this growth will slow down in the coming years because the major app communities are reaching saturation levels in many geographies, and some of smaller app user bases will eventually decline due to the superior network effects of dominant players.

SMS has already been marginalised in many countries and will play out a residual role in most geographies. We estimate that only 8% of the total messaging traffic in 2018 was generated using operator services.

Figure 4: Messages sent, by message type, and number of OTT messaging active users worldwide, 2012–2023







Executive summary

Worldwide trends

Regional trends

Country-level trends

China

Indonesia

Malaysia

Philippines

Forecast methodology and assumptions

About the authors and Analysys Mason



About the authors



Stephen Sale (Research Director) directs Analysys Mason's consumer research, which covers consumer mobile, fixed, convergence and video markets. His specialist areas are mobile operator strategies, customer experience and telco growth opportunities. He has extensive experience in advising senior executives on strategic issues and speaking at and chairing conferences. Before joining Analysys Mason in 2004, Stephen worked in the industry on areas that include VoIP, next-generation service architecture and broadband access. He has a degree in economics and an interdisciplinary MRes from the University of London.

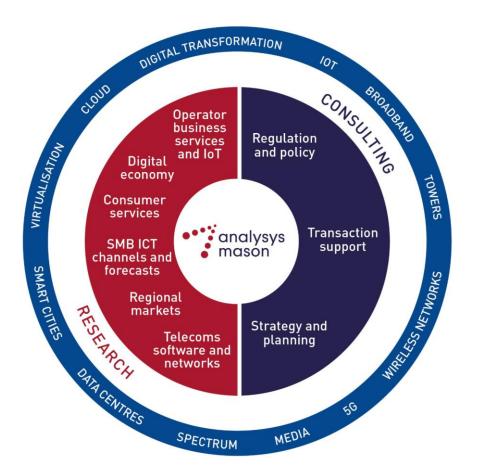


Giulio Sinibaldi (Research Analyst) is a key contributor to Analysys Mason's *Consumer Services* and *Digital Economy* research practices. He is interested in mobile strategies, over-the-top (OTT) platforms, Internet regulation and consumer behaviour, and his skillset includes quantitative forecast modelling and big data analytics. Giulio holds a BSc and an MSc in Economics from Bocconi University.



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Automated Assurance
Network Automation and Orchestration

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Digital Experience

Customer Engagement

Monetisation Platforms

Al and Analytics



Digital economy programmes

Digital Economy Strategies
Future Comms

Operator business services and IoT programmes

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Large Enterprise Emerging Service Opportunities
SME Strategies
IoT and M2M Services
IoT Platforms and Technology

SMB ICT channels and forecasts programmes

Managed Service Provider Strategies

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Americas
Asia-Pacific
Middle East and Africa
European Core Forecasts
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~2500 forecast and 250+ historical metrics

Regional results and worldwide totals

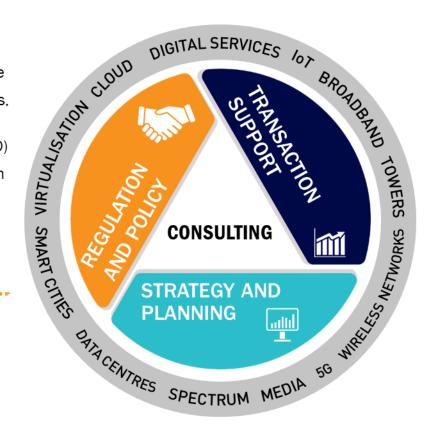
Operator historical data



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