

# Global A2P SMS report

The complete overview 2017-2027

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# The legal bit

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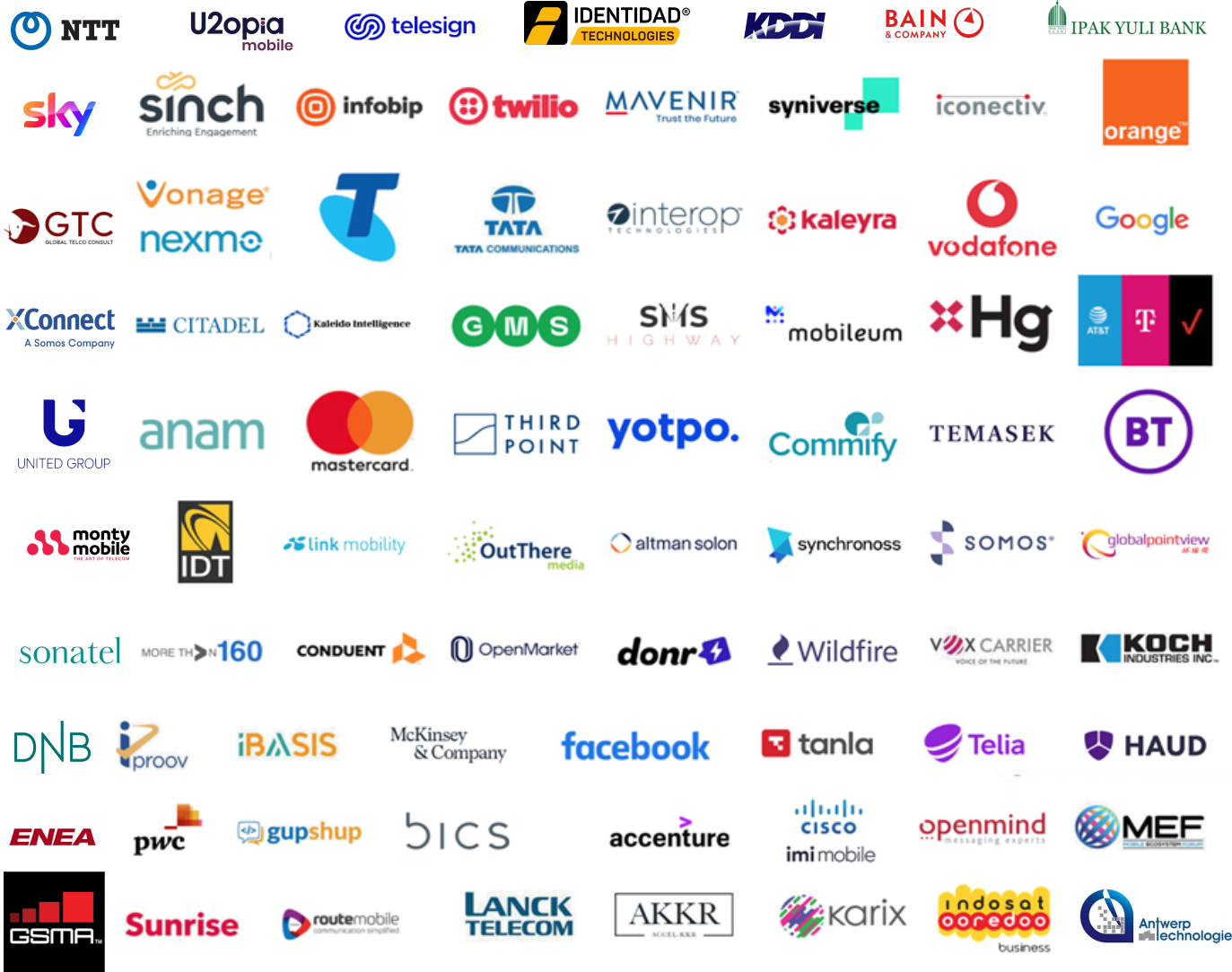
# About Mobilesquared

**Global #1 for business messaging intelligence.** We pride ourselves on delivering decision-ready intelligence to our clients, backed by our market-leading independent messaging data and expertise.

**Trusted by industry.** We are the only global analysts to focus exclusively on the messaging space, and as such we are trusted by our clients, industry, and media as the leading authority on the messaging market. Our work has been covered in the WSJ, Financial Times, Bloomberg, and the BBC, and we are keynote analyst speakers at all the major global messaging events.

**We strive to improve.** We have been tracking the messaging market for over 15 years, and push for better intelligence every opportunity we get, to improve our data offering to our clients. Our resulting data universe, the Messageverse™, contains 70M unique data points and counting, is reliably accurate in year-on-year comparison, and isconstantly being strengthened with new insight from our ongoing research with hundreds of companies across the messaging ecosystem every year.

## Clients include



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The A2P SMS Alternative View

Conversely, Mobilesquared's "Alternative View" is based on the industry sustaining its stable approach to price increases demonstrated between 2017 and 2021 and then applying it throughout the forecast period, this would have the reverse impact with a positive outcome, as brand spend would be lower in the short-term, but significantly greater between 2025 and 2027. As things stand, Mobilesquared believes the actions over the last 12-18 months will cost the A2P SMS industry \$14.36 billion in revenues by 2027.

Mobilesquared is projecting cumulative spend on A2P SMS between 2022 and 2027 will be \$210.11 billion, but the alternative outlook would have generated cumulative spend over the same period of \$224.47 billion. The industry research overwhelmingly stated that the high international termination rates should be reduced immediately, and Mobilesquared is in complete agreement with such a view because of the long-term damage to the A2P SMS opportunity.

The increase in international termination rates has triggered an exponential increase in fraudulent activity across the sector, namely Artificially Inflated Traffic (AIT), Artificially Generated Traffic (AGT), and Trashing. For the purposes of this report, we will use AIT as an umbrella term\* for AGT and Trashing also.

Consequently, Mobilesquared has introduced its revised traffic types based on the potential harm the messaging use cases and content pose to consumers and businesses alike - and also to the mobile operators and aggregators operating within the SMS ecosystem. Mobilesquared will ensure continuity by maintaining the split between white and grey route traffic, but will now identify subsections within both categories.

In previous years, and iterations of this report, we have focused on the mobile operator and the aggregator (used as an umbrella term to represent all non-mobile operator companies within the SMS ecosystem). As Mobilesquared looks to revise how we define the SMS landscape to better reflect the different traffic types (and fraud types in particular), we can now also look at the impact fraud has both on the business and the consumer.

\*Please note, Mobilesquared will breakout AIT, AGT and Trashing in a future A2P SMS update.

**\$14.36 billion** lost between Mobilesquared's actual revenue forecasts and our Alternative View revenue of A2P SMS between 2017 & 2027.



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**The traffic rainbow**

Our new SMS “traffic rainbow” better reflects how the certain traffic types can impact the business sending the message and the consumer receiving the message.

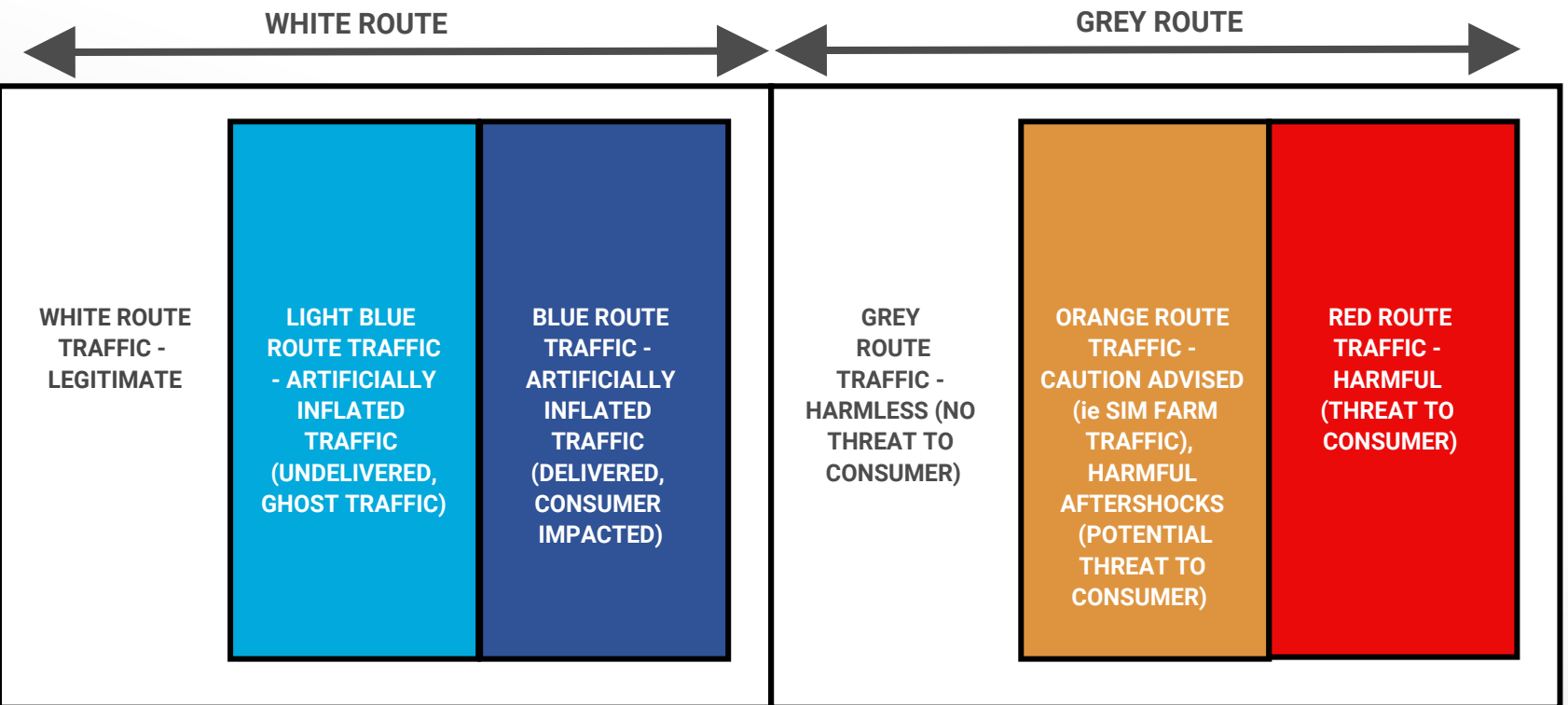
The definition of grey route traffic has always been quite... grey. Grey route traffic has typically been viewed as fraudulent because the terminating mobile operator was not receiving any payment for the delivery of the SMS.

But there are different shades of grey based on different types of grey traffic. Grey route traffic has always been closely associated with fraudulent traffic, but that is not to say that all of the grey traffic should be considered fraudulent and therefore harmful to either the consumer or the business.

At the lower end of the scale, grey route traffic can be used by messaging providers (for example) to create a blended rate (white route + grey route) to meet the pricing requirements of a business. An

example scenario might be where a business might refuse to pay higher than \$0.04 per message for traffic into a particular market, even though the basic rate for that market is \$0.08 per message. A messaging provider will blend white route traffic with the lower-priced grey route traffic to meet the client’s requirements. In such an instance, grey route traffic is an essential negotiating tool to help drive down costs for businesses.

Although the mobile operator will not receive any payment for grey route traffic that is delivered to the consumer, this type of traffic is not harmful to the consumer or the sending business’ reputation, and therefore should not be deemed fraudulent. Mobilesquared will refer to this traffic as “grey harmless traffic”. Similarly, Mobilesquared has placed “spam” within this category also. For instance, the majority of business emails into a personal email account are considered spam but not harmful. By including spam within our “grey harmless traffic” term, we are categorising SMS spam traffic in the same way we do with email, especially as these channels become more closely intertwined through CPaaS (Communications Platform as a Service).



We define orange traffic as “SMS traffic that is potentially harmful to the consumer”. A typical example would be SIM farm/SIM box traffic that is carrying harmless marketing and promotional traffic to the consumer. However, the company operating the SIM farm could then use the data applied or extracted from the campaign in a potentially harmful way for the next campaign.

Red traffic is “SMS traffic that poses a potential or real threat to the consumer and potentially damage the sender business’ brand reputation.” The red traffic classification includes phishing, account take-over, sender identity change, SIM swap, and SMS malware, for example.

# SECTION 1: MARKET OVERVIEW

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### The A2P SMS industry view

As ever, Mobilesquared has pursued three avenues when conducting our research for this update: an online survey, 1-2-1 interviews and 1-2-many interviews, and sharing existing Mobilesquared data with clients (recent 2022 data) and non-clients (older 2021 data). In addition, we have also used information and insight shared during conferences, and webinars.

If we look at the results of the online survey in isolation, it reveals where the industry has been over the last 12 months, where industry believes the market is today, and expectations for the short-term future.

A selection of the online industry survey findings\* (although, just to reiterate, these are not the overall Mobilesquared market findings), include:

- Top 5 sectors sending A2P SMS in 2023 will be; gambling, leisure & entertainment, utilities, finance, and enterprise software.
- Domestic: grey route traffic accounted for up to 33% of total domestic traffic in 2022, and is expected to increase by 4% on average in 2023.
- Domestic: SIM farm traffic varied between 1% to 40% in 2022 depending on the market, and is expected to increase by an average of 7% in 2023.
- Domestic: white route traffic to increase by an average of 8% in 2023.
- International: grey route traffic accounted for up to 35% of total international traffic in 2022, and is expected to increase by an average of 9% in 2023.
- International: SIM farm traffic varied between 1% to 30% in 2022 depending on the market, and is expected to increase by an average of 8% in 2023.
- International: grey route traffic varied between 1% to 34% in 2022 depending on the market, but is expected to increase by an average of 5% in 2023.
- International: white route traffic is expected to increase by an average of 7% in 2023.
- An acceptable level of fraud is 3.9% - down from 5% compared to 2021 research.
- The A2P SMS market lost 18% of A2P SMS revenue to fraud in 2022.

- The biggest threats to A2P SMS in 2023 as identified by the people within the industry are, in order, AIT, followed by grey routes and SMS phishing. It's the same top 3 threats as identified in our online research from 2022, but with the top two swapping places.
- 8% of total white route traffic will be subjected to AIT.
- AIT accounted for over 20% of international traffic in 2022, and this is expected to increase by 40% in 2023.
- AIT is a short-term industry issue that will be addressed.
- The Increase in international termination rates are not sustainable and need to be reduced immediately.
- Industry expected OTP traffic to fall in 2022, compared to 2021 traffic.
- Between 3-7% The increase of total A2P SMS traffic is lost to flash calling.
- 9% of total A2P SMS traffic will be lost to OTT channels in 2023; down from 18% based on our research from the previous year.
- Companies are starting to increase their investment in their SMS network.
- Industry expects brands to be either moderate users of A2P SMS (sending 3-4 per month) or heavy users (25 per month), and no in-between.

\* Please note, these are industry amalgamated views only, and not final Mobilesquared output.

<p><b>Top 5 sectors 2023:</b> Gambling, Leisure &amp; ent., Utilities, Finance &amp; Enterprise software</p>	<p><b>The biggest threats to A2P SMS in 2023 as identified by the mobile industry are AIT, followed by grey routes and SMS phishing.</b></p>	<p><b>Increase in international termination rates are not sustainable and need to be reduced immediately</b></p>	<p><b>Domestic: white route traffic to increase by an average of 8% in 2023.</b></p>	<p><b>International: SIM farm traffic varied between 1% to 30% in 2022 depending on the market, expected to increase by avg of 8% in 2023</b></p>
<p><b>The A2P SMS industry lost 18% of A2P SMS revenue to fraud in 2022</b></p>	<p><b>AIT is a short-term industry issue that will be addressed. 8% of total white route traffic will be subjected to AIT.</b></p>	<p><b>AIT accounted for over 20% of international traffic in 2022, and this is expected to increase by 40% in 2023</b></p>	<p><b>9% of total A2P SMS traffic will be lost to OTT channels in 2023; down from 18% based on our research from the previous year.</b></p>	<p><b>An acceptable level of fraud is 3.9% - down from 5% compared to 2021 research.</b></p>

The A2P SMS industry view... selected

**The Covid effect**

The Covid-19 pandemic had a very big impact on an A2P SMS industry that was already starting to experience strong growth well before the world locked down.

Between 2017 and 2019 total A2P SMS traffic experienced growth of 19.48% and a CAGR of 9.3%. In 2017, businesses sent a total of 1.51 trillion A2P SMS, and this had increased to 1.8 trillion by 2019. Brands were sending 4.1 billion A2P SMS every day in 2017, and this increased to 4.9 billion by 2019.

In fact, year-on-year, businesses were sending an additional 140.1 billion A2P SMS in 2018 and 153.1 billion in 2019 – which meant that businesses on average were sending an extra 383.9 million and 419.4 million additional messages each day in 2018 and 2019, respectively, compared to the previous year.

For this period, domestic traffic accounted for around 87.5% of total traffic, and white route traffic was increasing from 64.2% in 2017 by just over 2 percentage points year-on-year, driven primarily by more mobile operators deploying SMS firewalls.

At the time, around 16.1 million registered businesses were using SMS, accounting for just 5.34% of the total registered businesses globally.

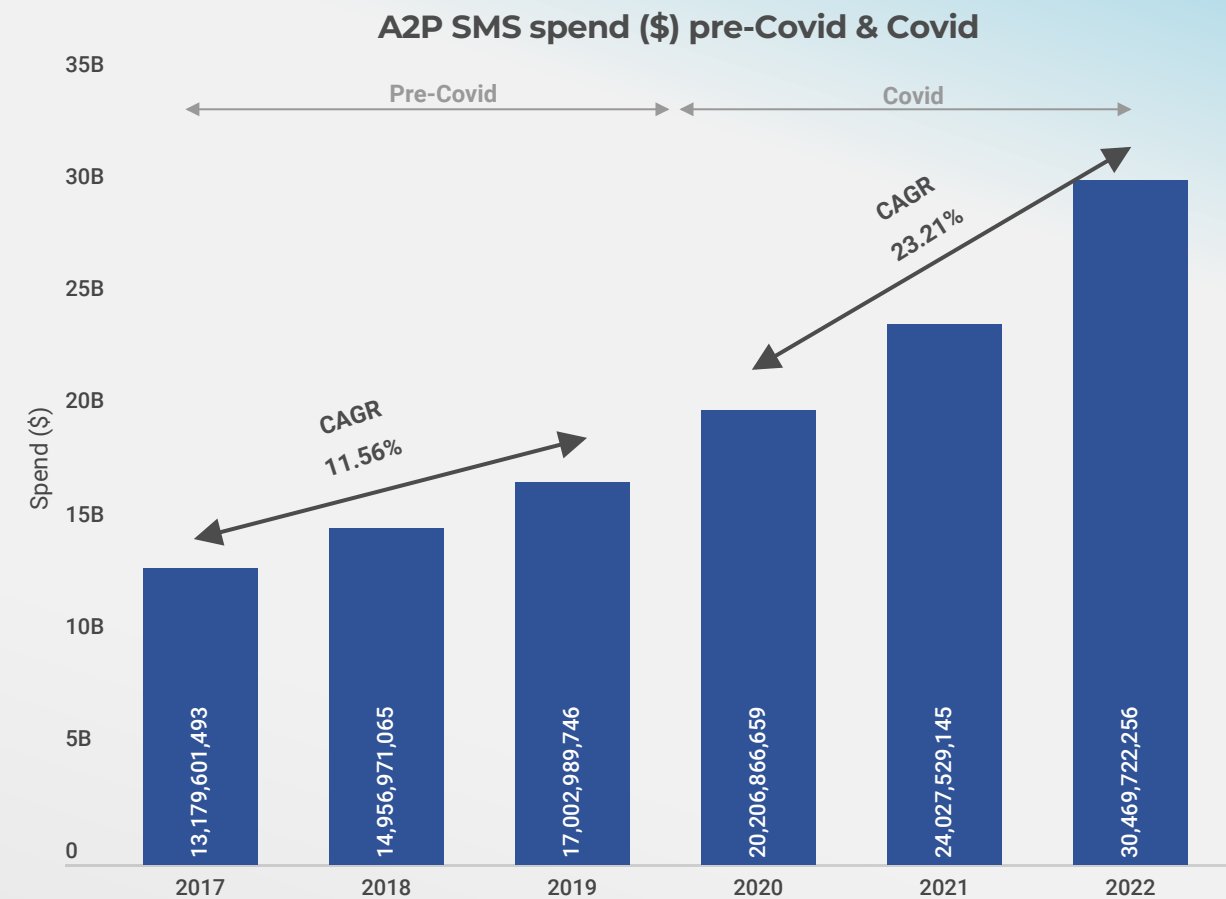
From a spend perspective, businesses increased their investment in SMS consistently between 2017 and 2019, with spend up 29%, from \$13.18 billion in 2017 to \$17 billion in 2019. There was a stepwise increase from 2020 that has continued during the pandemic up to the end of 2022.

Over the period 2017-2022, business spend on SMS increased by 127%, from \$13.18 billion in 2017 to \$30.5 billion in 2022. In essence, the pandemic generated an additional \$1 billion uplift in business spend on SMS on top of the anticipated year-on-year increase in 2020.

By the end of 2020, the number of registered businesses using SMS had reached 20.1 million, an increase of around 24%, and accounting for 6.59% of total registered businesses.

The pandemic acted as an accelerant for A2P SMS, as the majority of businesses were forced to operate in a constrained way during the lockdowns, and then adopt a policy incorporating social distancing post-lockdowns. A2P SMS was the one channel during that entire period that could connect a business with all of their customers in a timely manner, and why governments turned to SMS to disseminate vital communications with virtually all of a country’s population.

What the pandemic effectively did for the A2P SMS industry was a course reset. So why is understanding the impact of the pandemic on A2P SMS important when we look at our market forecasts from 2022 to 2027?



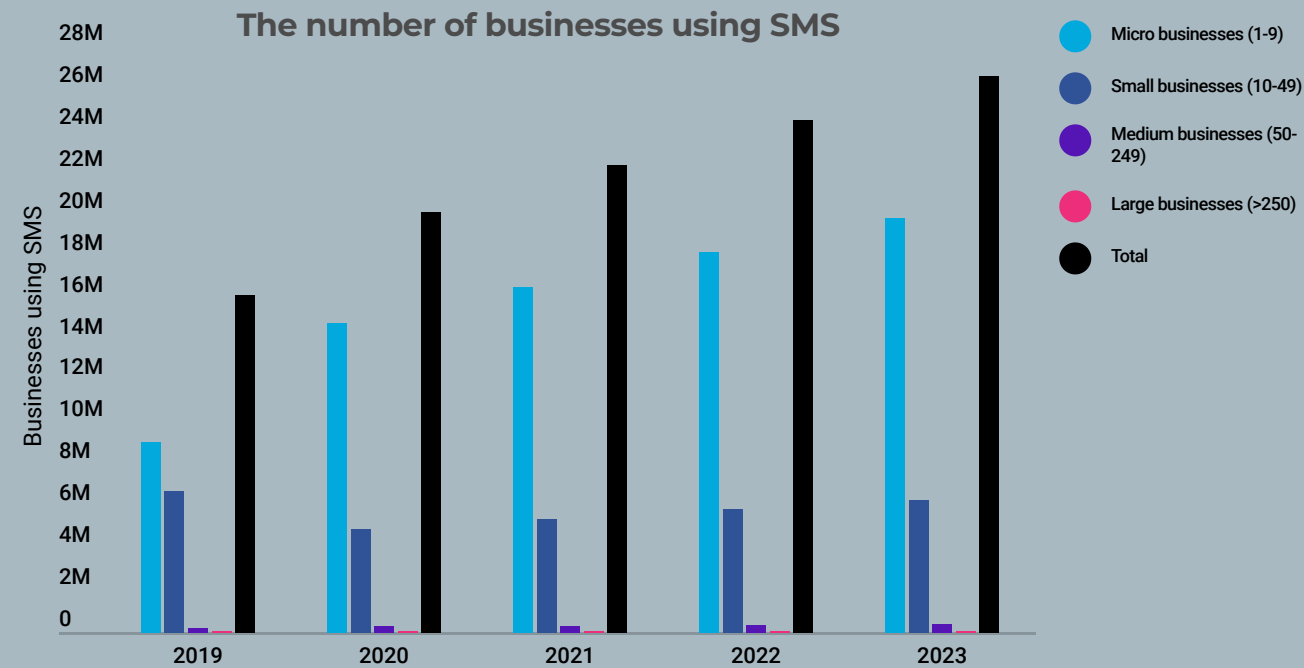
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**The A2P SMS opportunity (businesses using SMS)**

For a number of years the number of businesses using SMS has become an important KPI for Mobilesquared. The pandemic highlighted exactly why SMS should be considered a key channel for businesses, with 24% year-on-year growth of business adoption between 2019 and 2020.

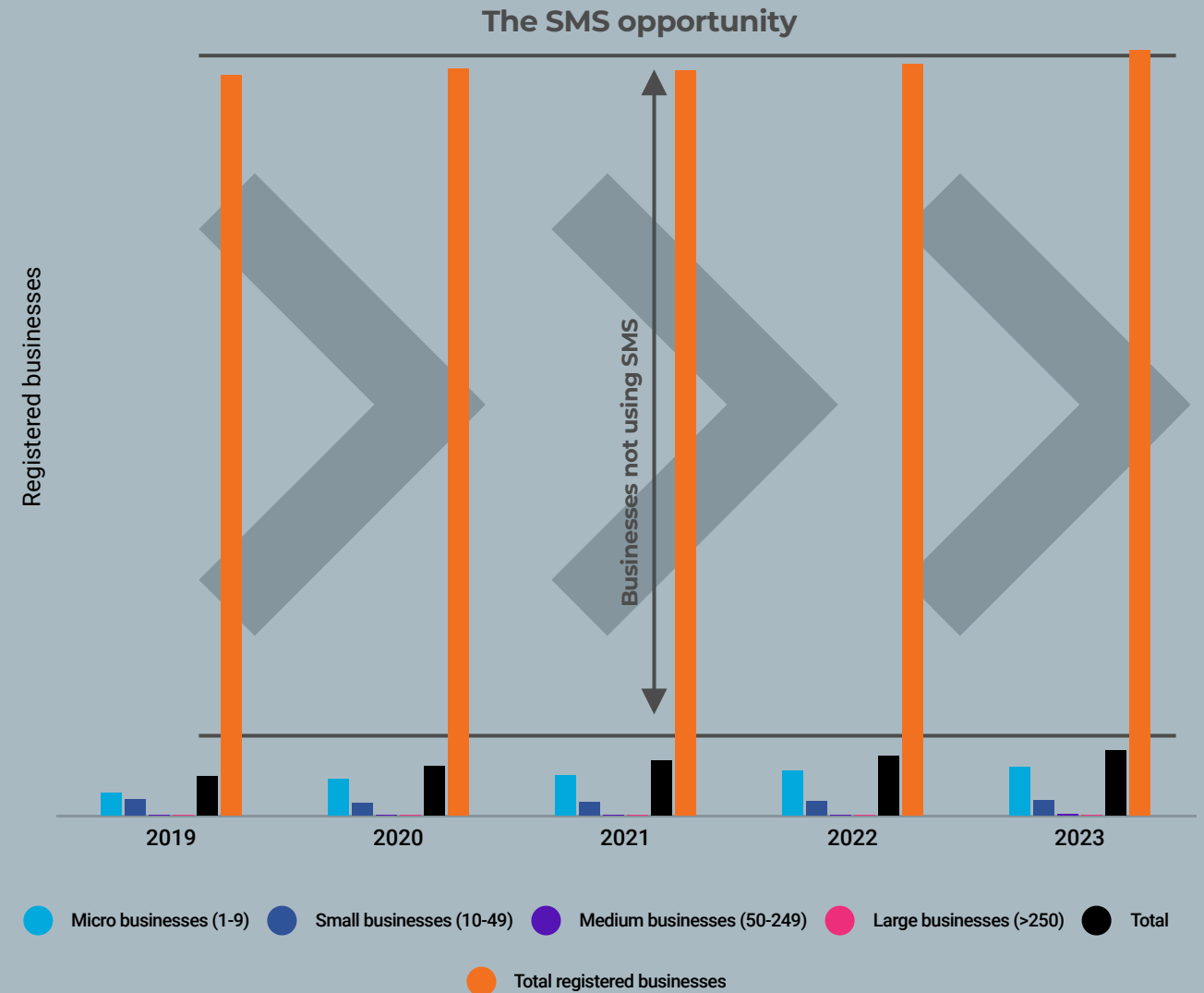
Adoption growth has dropped since 2020, with 7.33% of total registered businesses using SMS in 2021, 7.98% in 2022, and 8.52% by the end of 2023. By the end of our forecast period in 2027, 9.54% of total registered businesses will be using SMS.

While this shows encouraging growth, the fact that more than 90% of businesses will not be using SMS by the end of 2027 highlights the real opportunity for the channel, and is perhaps indicative that the majority



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of businesses are yet to grasp how they could use SMS to support their business. And that the messaging ecosystem still has a lot of work to do educating businesses of the merits of SMS. As the below graph reveals, the number of businesses not using SMS is extremely revealing.



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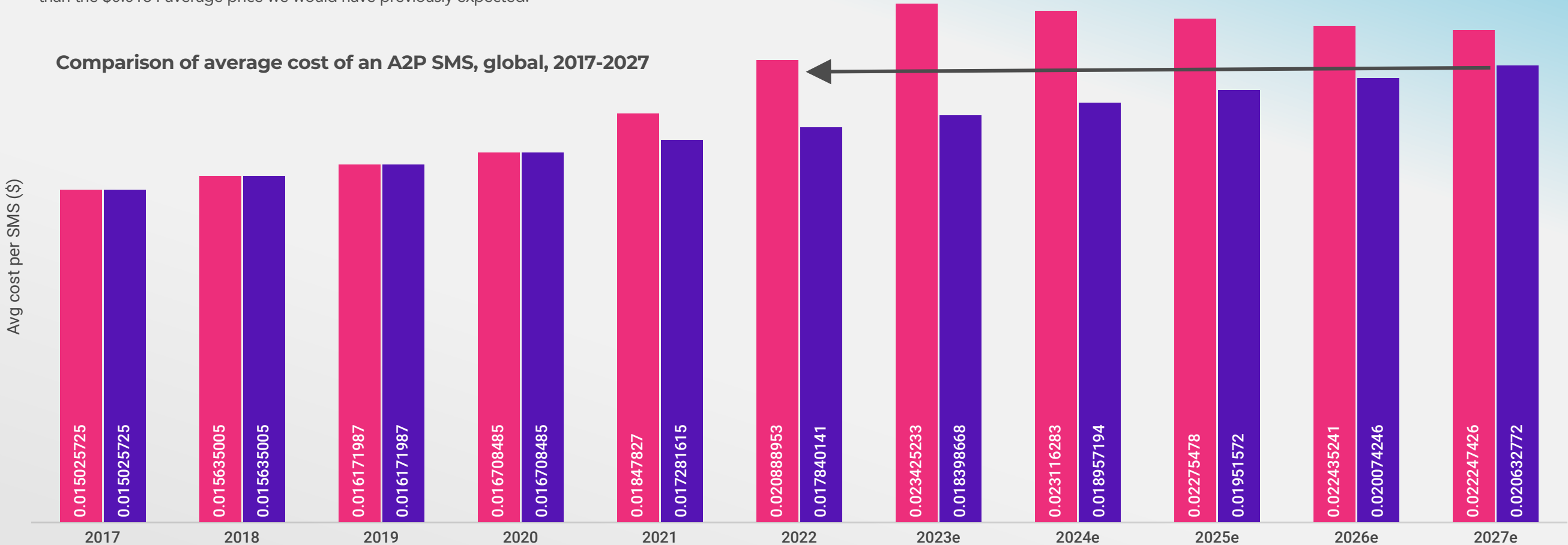
# A2P SMS 2017-2027

As part of our Alternative View of the A2P SMS market to highlight how the market might look if the "three issues" had not arisen and the market maintained strong growth from the previous years, we have calculated the average price increases between 2017 and 2020, and then applied that figure to the average A2P SMS price over the forecast period.

As the below graph visually demonstrates, 2021 was when the international termination rates started increasing, with the actual average cost of an A2P SMS already 6.9% higher than the price should have been. In 2022, the pricing difference was 17.1%, and in 2023 it will be 27.32% higher than the \$0.0184 average price we would have previously expected.

In actual fact, today's average cost per SMS is where the market would be in 2027 based on organic market growth in stable conditions (as highlighted by the arrow below). In essence, we are forcing the market to advance 5 years unnecessarily, but its impact will only last a maximum of 3 years until businesses start migrating their spend to other channels.

Comparison of average cost of an A2P SMS, global, 2017-2027



● Existing rates (2023) ● Applied avg growth 2017-2021

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# SECTION 2: MARKET ANALYSIS





## Do not underestimate the importance of SMS

The A2P SMS market is facing a pivotal period. It can pursue the current aggressive short-term path that it is following that will potentially hamper its long-term growth, or, it can reset and return to allowing market forces to determine pricing based on demand and competition from other channels.

Having enjoyed a period of strong growth on the back of the pandemic and local lockdowns around the world, A2P SMS appeared well-primed to sustain that growth as more businesses started using the channel, and existing businesses expanded their usage. We have looked at the expected post-pandemic trajectory in the previous section. But this has not been sustained.

The real question is why has this happened. There are a number of potential answers from a mobile operator perspective, such as: mobile operators (and aggregators) want greater profits; mobile operators fear OTT cannibalisation of existing SMS revenues; and lastly, mobile operators anticipate A2P SMS to mirror P2P SMS and trying to extract revenue uplift before its demise. All three mobile operator explanations are intertwined, but there is also one additional consideration; that there is too much reliance on one-time passwords (OTP).

Mobilesquared research reveals that OTPs accounted for 88.57% of total international traffic in 2022, and will count for between 35% to 40% of total A2P SMS traffic. These traffic levels can be sustained provided more brands look to use OTP for customer security and authentication uses.

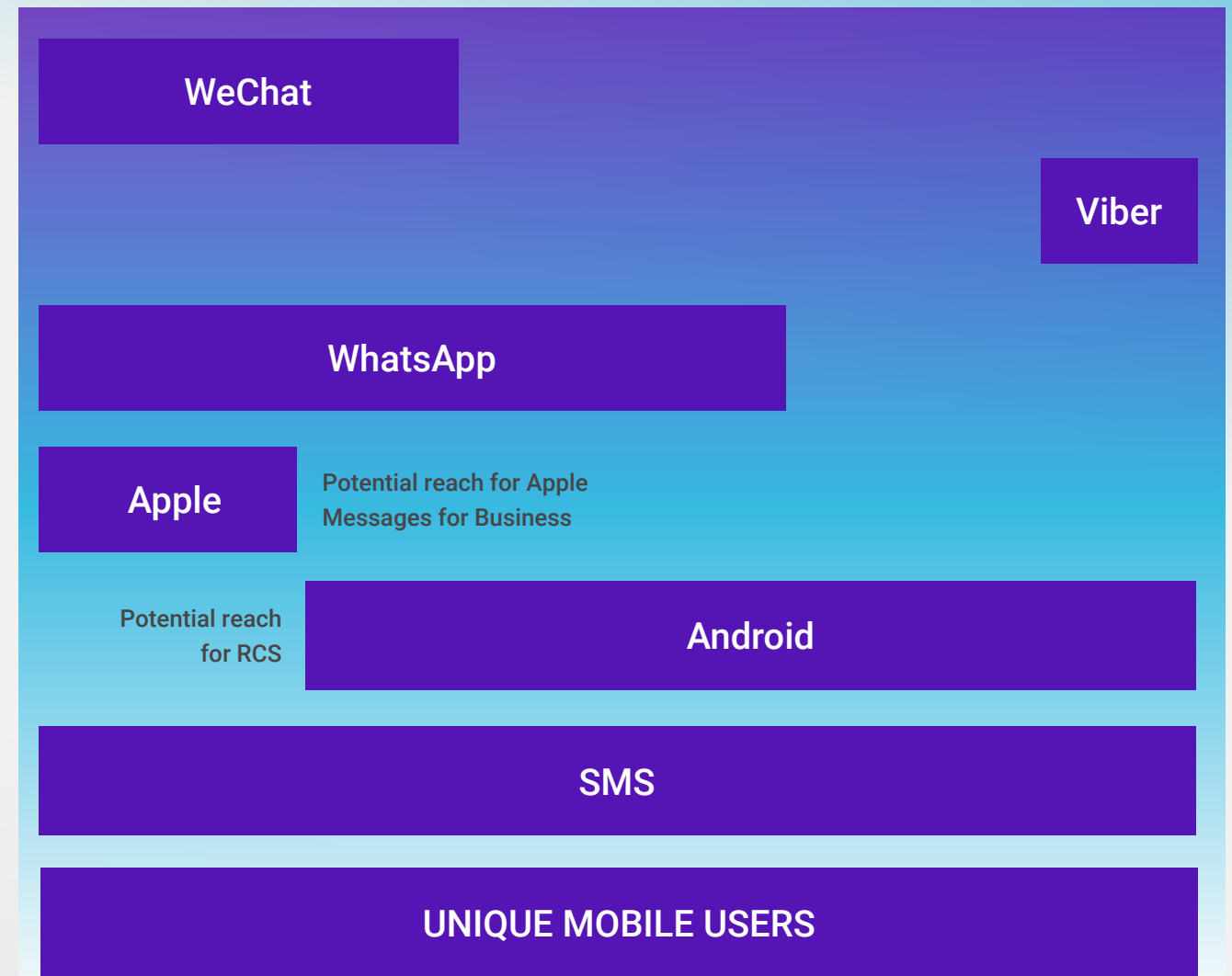
However, the problem is that there are companies (mobile operators and aggregators alike) looking to exploit this traffic by exponentially increasing their A2P international SMS prices, and this is the crux of the issues now facing the SMS industry, such as artificially inflated traffic (AIT), artificially generated traffic (AGT), bogus user accounts, or trashing, to name a few. This is happening around the world on international prices, and could potentially filter down into domestic pricing.

Mobilesquared believes this is a very damaging short-term strategy with a clear impact on the long-term future of A2P SMS.

Brands are locked into using OTP and cannot switch off this service because of a cost increase; they will have to allocate more budget to safeguard the continuation of the service and this is being exploited by certain elements within the messaging landscape. In the meantime, the businesses

being exploited are searching for cheaper alternate solutions. Authenticator apps have already resulted in the migration of a small percentage of security traffic, and the rise of OTT messaging platforms present another viable alternative. But no other channel can offer the ubiquity of SMS.

### Channel reach / potential reach, by platform



## WhatsApp is coming

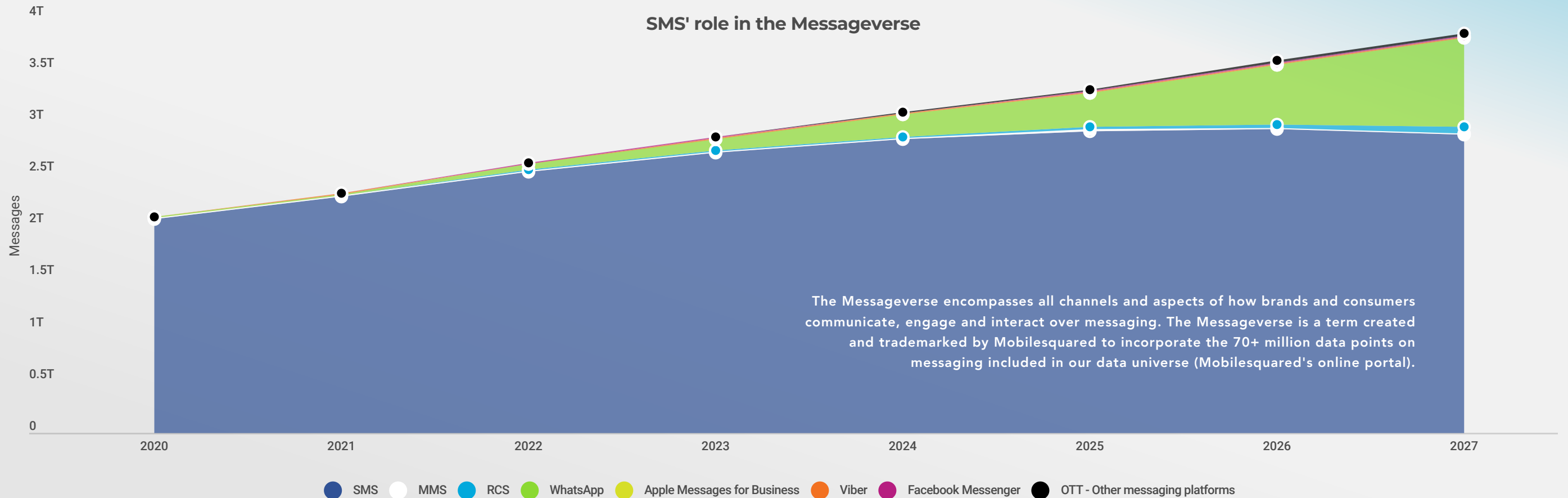
SMS as a channel should not be undervalued. MobileSquared has created the term the Messageverse (see below for definition), incorporating all channels used for business messaging to connect businesses with consumers. As the chart below highlights, A2P SMS accounted for over 98% of total business messaging traffic in 2020, 96.6% of total business messaging traffic in 2022, and this will fall to 74.7% by the end of 2027.

While SMS has been the platform upon which virtually all messaging channels have emerged, its dominance will diminish over the forecast period as WhatsApp Business gains greater prominence. While WhatsApp Business only accounted for 2.1% of total business messaging traffic in 2022, by 2027 it would have increased to a 22.1% share of total traffic.

Over the forecast period alone, WhatsApp Business traffic will experience growth of 1,572%. That will actually be overshadowed by RCS business messaging growth of over 3,000%, but that is coming from a significantly smaller base, and will only account for 1.96% of total business messaging traffic by 2027.

For the time being SMS remains the dominant channel and SMS companies without a vested interest in WhatsApp, such as mobile operators, should look to preserve the channel and strive to maintain its dominant position within the messaging ecosystem.

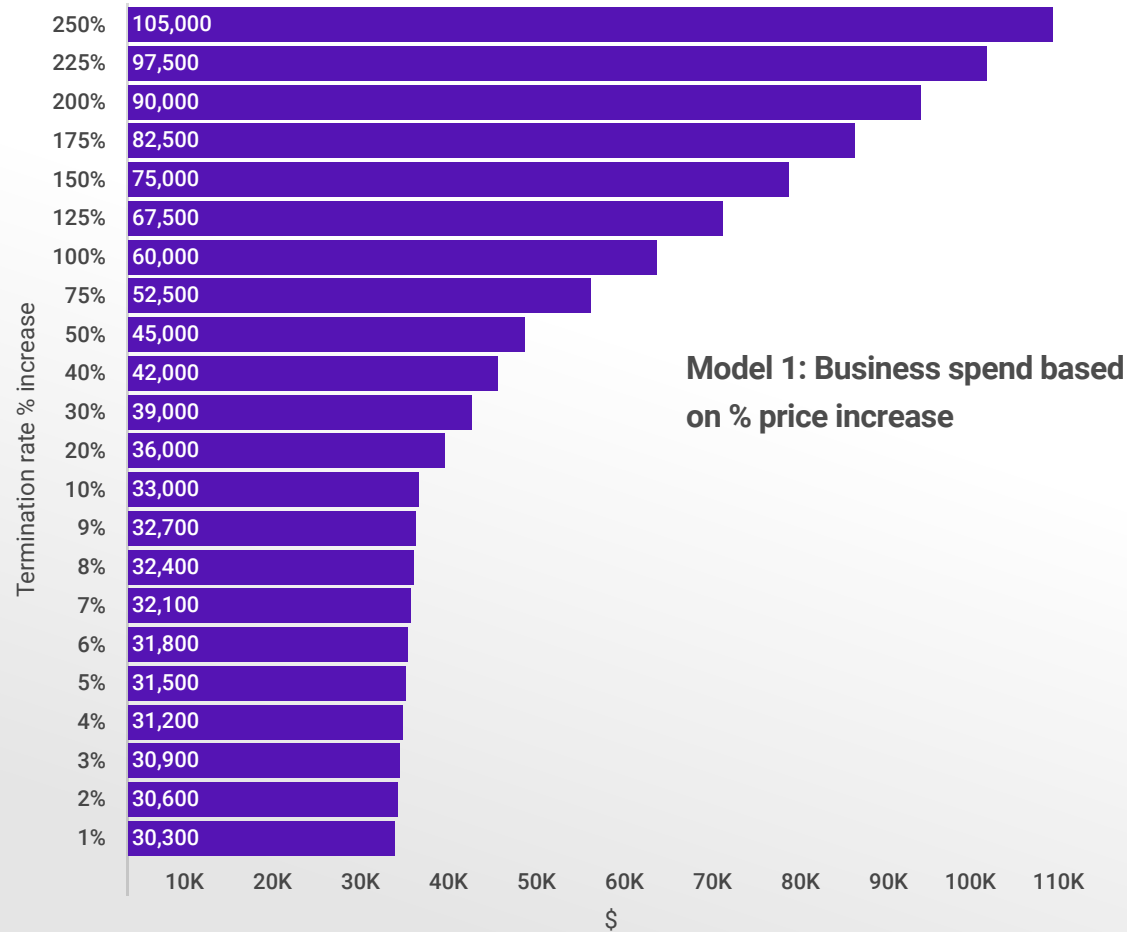
SMS' role in the Messageverse



## Market model: Impact on businesses

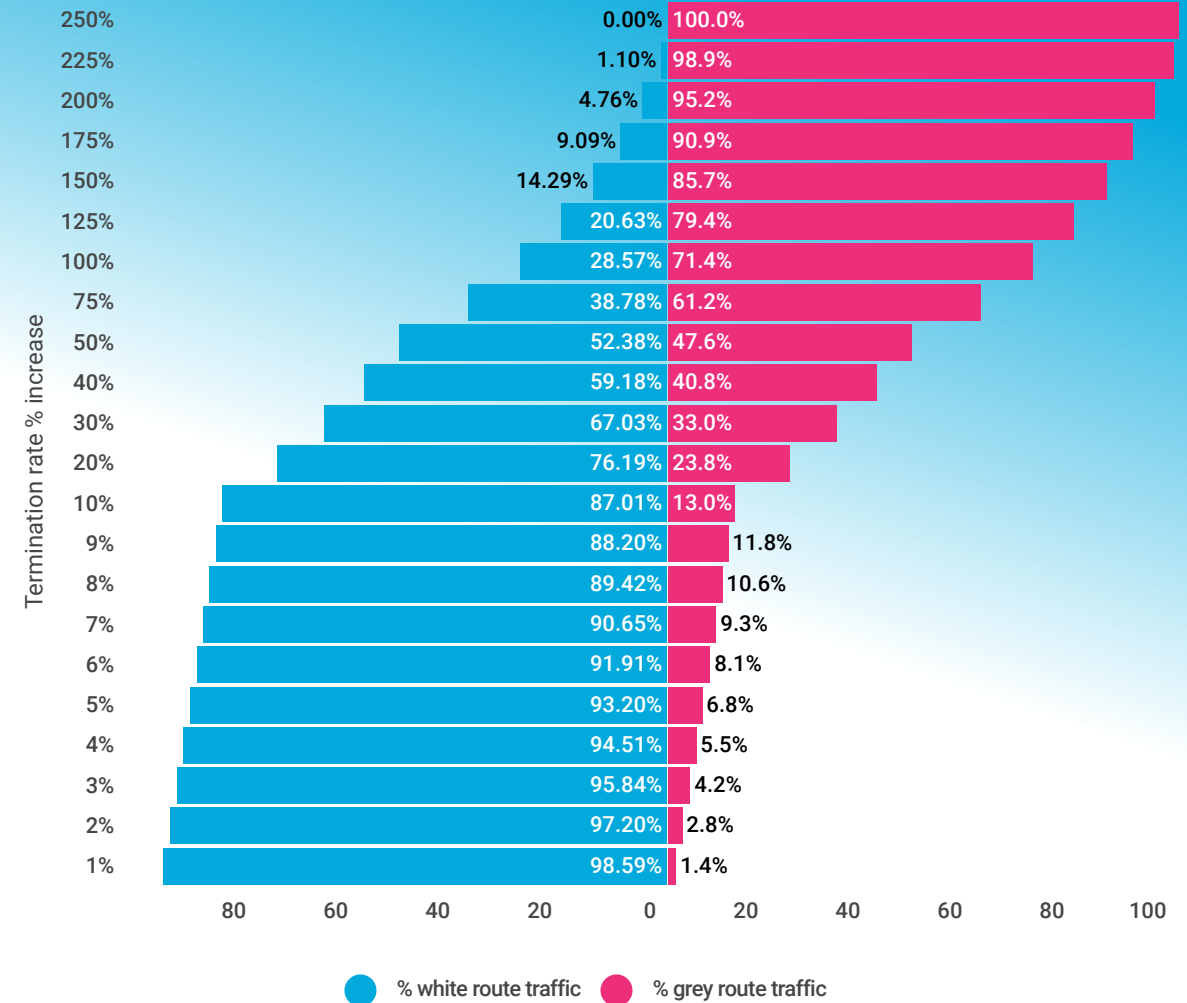
To gauge how a brand could be impacted by the increase in international termination rates, Mobilesquared has developed a model based on a business sending 1 million SMS OTPs to an international location using 2021 rates as the benchmark. In 2021, to send 1 million SMS into country X at the-then average cost per message of \$0.03 would have cost \$30,000.

To highlight how the increased international termination rates are impacting on a business in 2023, the price increases used in the 3 models are based on a 1%-250% per message rate increase in 2023, with grey at 30% of the white route price. For example, a 250% price increase on the 2021 rate is \$0.105 per SMS.



[Download data](#)

## Model 2: Delivering 1 million SMS based on % price increase



[Download data](#)

Model 1: If the business was to pay for all 1 million OTP messages to be sent via a white route in 2023, it would cost \$105,000 based on a 250% increase - as of 2Q2023, 129 mobile operators' international termination rate was \$0.106 or higher.

If a business requests a blended rate (of white route and grey route traffic) based on a fixed budget of \$30,000, Model 2 shows the split between white and grey traffic required to deliver 1 million OTP SMS within budget. At a 50% price increase, 52.38% of traffic would be white, 47.6% grey. At a 250% price increase, all traffic would be grey.

Model 3 is based on an aggregator delivering \$30,000 worth of OTP messages, and then not sending any more messages or trashing the additional messages in order to avoid being charged the termination fee. The model reveals how many white route messages can be delivered and how many consumers would not receive their message. At a 50% price increase, two-thirds of the messages would be delivered, and one-third of consumers would not receive their OTP. At a price increase of 250%, more than three-quarters of consumers would receive a negative experience.

Model 1 highlights that in the present SMS climate, an exceptional user experience comes at the expense of the business. Model 2 highlights the reliance on grey routes to help create a cheaper blended rate for the business, however, this potentially comes at a cost in terms of consumer experience, as grey route messages are more likely to not be delivered. What's more, an increase in grey route traffic has historically been associated with an increase in fraudulent traffic. Model 3 delivers a bad consumer experience, and that will reflect badly on the brand.

### The rise of the grey routes

One of the major consequences of the increase in international termination rates is the increase in grey route traffic, as businesses seek blended rates to help bring the cost per message down across markets around the world. That is not to say that businesses are not seeking a cheaper rate to also send various content types around the world, including fraudulent traffic.

Mobilesquared research reveals that grey route traffic peaked in 2022 with 630.4 billion messages, and similar traffic levels will be maintained in 2023, before traffic again starts to decline. Grey route traffic did appear to have peaked in 2020 and then declined in 2021, but the increase in international termination rates has clearly had an impact, as the chart on the following page highlights.

**Model 3: Undelivered messages based on % price increase**

