

# The Digital Markets Act proposes messaging interoperability, but this is easier said than done

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The European Commission (EC) recently announced a provisional political agreement on the Digital Markets Act (DMA).<sup>1</sup> The act is expected to mandate interoperability between the online messaging services of large firms (known as ‘gatekeepers’).

Messaging is important in today’s world: it has become a huge part of our everyday lives. For example, parents worldwide benefit from the collective insight of other parents via such messaging to know if their child needs a sports kit/costume/prop on a particular day. However, the devil is in the detail when requiring interoperability between messaging services, and the current (fragmented, non-interoperable) market for messaging may not be such a bad thing.

## NIICS messaging has been more popular than SMS messaging for some time

The EC defines Number Independent Interpersonal Communications Services (NIICS) as interpersonal communications services that do not connect with publicly assigned numbering resources.<sup>2</sup> WhatsApp, iMessage, Facebook Messenger, Telegram and Signal are all examples of NIICS. These services offer a range of forms of communication (including voice and video calls), but the dominant mode of use, especially on mobile devices, is messaging.

NIICS messaging has long overtaken traditional SMS messaging in terms of volume. Indeed, we forecast that the number of NIICS messages sent worldwide will be 40 times the number sent via SMS by 2025.<sup>3</sup> This difference in volume is driven by the following factors.

- NIICS offers better functionality than SMS (messages are not limited to 160 characters and rich characters such as emojis can be included).
- Group messages contribute significantly to traffic levels.
- Demographics play a key role: younger users have a preference for NIICS over traditional services.

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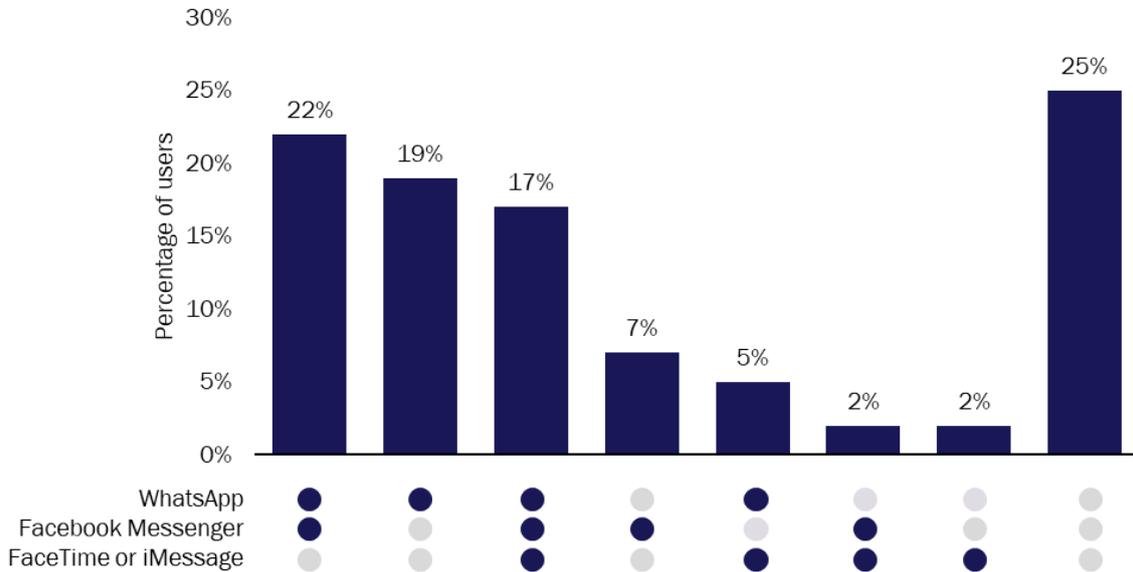
<sup>1</sup> European Parliament (2022), *Deal on Digital Markets Act: EU rules to ensure fair competition and more choice for users*. Available at: <https://www.europarl.europa.eu/news/en/press-room/20220315IPR25504/deal-on-digital-markets-act-ensuring-fair-competition-and-more-choice-for-users>.

<sup>2</sup> European Union (2018), *Directive (EU) 2018/1972 of the European Parliament and of the Council of 11 December 2018 establishing the European Electronic Communications Code (Recast)Text with EEA relevance*. Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018L1972>.

<sup>3</sup> For more information, see Analysys Mason’s [DataHub](#).

‘Multi-homing’ is another dynamic that is prevalent in the NIICS market. Users will typically be active on more than one of these services and will hold accounts for multiple services on a single device. Our illustration of this dynamic for some major NIICS is shown in Figure 1.

Figure 1: Use of the major NIICS, UK, 2021



Source: Analysys Mason, 2022

## Group network effects have a significant impact on preserving market share

Data on the market share of message volumes for each of the NIICS is not publicly available, but we know from our primary research that WhatsApp has the largest share of user accounts in the UK. The ‘network effects’ that are prevalent on these types of platforms are a major driver of WhatsApp’s success. The classic definition of network effects is that the value to an individual user is increased with a greater number of users taking the service. Network effects in NIICS take an additional form relating to the dynamics of group chat. Once in a group (which may itself be quite small), a user is likely to face substantial inconvenience to move to another service (since all members of the group would also have to move). Group chats therefore encourage users to stay with a particular NIICS provider. Nonetheless, conventional network effects are still relevant: the larger the user base on a particular messaging service, the more likely it is that potential group members will already have an account with a particular NIICS provider when the group is set up.

WhatsApp does face competition from other NIICS platforms, but so far, this competition has not been sufficient to affect its market position. WhatsApp has been able to implement features that are similar to those offered by rival services (‘feature parity’), and this has been sufficient to avoid any mass migration away from the platform. Indeed, even previous concerns over changes to the WhatsApp privacy policy did not appear to do much to dent WhatsApp’s lead.

## The DMA is expected to require interoperability between NIICS

The DMA is expected to require interoperability between NIICS. In particular, according to the European Commission press release, “the largest messaging services (such as WhatsApp, Facebook Messenger or iMessage) will have to open up and interoperate with smaller messaging platforms, if they so request”. This proposal would seem to be a simple solution to the high market share of certain NIICS, but the implementation could come with some challenges.

- The nature of the interconnection between NIICS is critical. It is expected that the act will initially only require interoperability for one-to-one messages; the interoperability of group chats is likely to be required at a later date. As such, the act is unlikely to materially affect the current ‘group-based’ dynamic in the market straight away. It also remains to be seen whether the requirement for one-to-one interoperability will usefully contribute towards group interoperability. One-to-one interoperability could possibly be addressed using a simple forwarding function, but group interoperability could be a more complex issue to solve.
- End-to-end encryption is part of the appeal (and marketing) of some NIICS. As has been reported,<sup>4</sup> there could be some complexity in achieving end-to-end encryption between groups of users across multiple applications, which implies a degree of risk that this encryption may be more easily subverted. Interoperability could require encryption keys to be shared outside of an individual app, which at the very least would require standards for sharing keys. This could also raise questions about which apps are qualified to gain access to the keys and whether hackers could use this procedure to gain access to message content.
- It is also important to assess how considerations around privacy will play out in a world with interconnecting messaging services. For example, a user may become unhappy with the privacy policy of large messaging provider A (because even with end-to-end encryption, they can see who is being messaged and when). The user may then change over to small messaging provider B. The change can be done easily because interoperability means that the user can still be part of the same groups (once interoperable groups are implemented). However, messages are now moving between platforms A and B, so can the user be confident that provider A cannot see any information about the traffic? Even if this could be solved technically, would the user trust that it was solved, or would they try to persuade their contacts to also move to platform B (thus defeating the need for interoperability)?
- There are other considerations around new features and differentiation. Would all features be in the scope of interoperability? For example, if one platform allows unicorn emojis in three different shades of pink, do all platforms need to render the same three shades? If large platforms effectively have to share any innovations they deploy, could this reduce their ability and incentive to innovate, and would this be a better outcome for consumers overall?

It is not clear at this stage the extent to which the above points will transpire to be material issues, or whether the industry can find pragmatic solutions in each case. However, it is interesting to consider whether the current structure of the NIICS market is actually creating harm for consumers. Services such as WhatsApp and iMessage provide end users with easy, secure and feature-rich communications. Multi-homing and feature parity keep the large operators ‘in check’, and many services are free to use with no likelihood of that changing. Ultimately, if there was a material reduction in service quality or privacy from a current messaging provider, users could choose to migrate to another platform.

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<sup>4</sup> The Verge (2022), *Security experts say new EU rules will damage WhatsApp encryption*. Available at: <https://www.theverge.com/2022/3/28/23000148/eu-dma-damage-whatsapp-encryption-privacy>.

The requirement to offer interoperability between messaging services creates a range of complex issues. This will require service providers and regulators to work closely together to make sure that a positive outcome overall is delivered for consumers.

Analysys Mason has wide-ranging expertise in supporting stakeholders across the internet value chain. For further details and to discuss any aspect of the technology and economics of digital communications, please contact [Andrew Daly](#), Principal.