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## Conference Paper

# Implementing the DMA: A role for proportionality?

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# IMPLEMENTING THE DMA: A ROLE FOR PROPORTIONALITY?

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# 1 Motivation

Now that the Digital Markets Act (DMA) will soon be implemented, different policy options can be considered, each presenting some trade-offs. In this paper we discuss the importance of taking into account proportionality when designing the specific remedies to implement the DMA. As the DMA leaves some room for different implementation options, taking into account proportionality, via an explicit framework, may help to assess the options that best accomplish the ultimate goals established in the DMA (i.e. promoting innovation, quality, fair and competitive prices and choice for end users).

The proportionality framework we develop applies the principles behind telecoms regulation to horizontal interoperability in number-independent interpersonal communications services. This is the obligation set out in Article 7 in the DMA. We find that, when analysing a set of options for policy implementation through proportionality lenses, outcomes may vary considerably compared to when proportionality is neglected.

## 2 Background

After considerable discussion, the Digital Markets Act (DMA) is now a reality, and we are moving into the implementation phase. At the latest, by 3 July 2023, potential gatekeepers will have to notify their core platform services (CPS) to the European Commission (EC) if they meet the thresholds established by the DMA. The EC will then have 45 days to adopt the designation decision, after which, designated gatekeepers will have six months to comply with the obligations in the DMA, at the latest by 6 March 2024.

The DMA includes 10 different Core Platform Services (CPS) and 22 different obligations that gatekeepers will have to adhere to (where applicable to their CPS). A key challenge is that there is still significant room for interpretation about how the various obligations should be implemented, with general recognition that there will not be a single solution for complying with each obligation. This is because:

1. The obligations have not been defined in detail in the DMA, as there is typically only a few paragraphs on each obligation.
2. A considerable number of the obligations apply to all designated gatekeepers, irrespective of their business model and the CPS in question.
3. The objectives of contestability and fairness have not been defined in detail in the DMA, although there are some high-level indications of how they should be interpreted.
4. Even third parties (i.e. non-gatekeepers) may not agree on how each obligation should be implemented.
5. The precedents from ex-post competition cases e.g. the Google Android case (CASE AT.40099), illustrate the challenges in designing and implementing appropriate obligations.
6. Gatekeepers will also need to take into account other considerations, such as data protection laws and the security of their services, when deciding how best to implement the various obligations.

At least initially, the onus will be on gatekeepers to decide how they are going to comply with the various obligations in the DMA. However, the EC may still need to assess whether the gatekeepers have complied with the various obligations under two possible circumstances:

- Gatekeepers can ask the EC for guidance on whether its proposed solutions for implementing the obligations comply with the DMA<sup>1</sup>; or

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<sup>1</sup> "A gatekeeper may request the Commission to engage in a process to determine whether the measures that that gatekeeper intends to implement or has implemented to ensure compliance with Articles 6 and 7 are effective in achieving the objective of the relevant obligation in the specific circumstances of the gatekeeper. The Commission shall have discretion in deciding whether to engage in such a process, respecting the principles of equal treatment, proportionality and good administration." (Article 8(3))

- The EC can decide to open its own investigation into whether gatekeepers have implemented the obligations in a way that complies with the DMA<sup>2</sup>.

Gatekeepers will also be required to submit compliance reports to the EC on an annual basis, including a version that can be made publicly available. These compliance reports are likely to be subject to significant scrutiny by both the EC and third parties. Therefore, it seems inevitable that the EC will end up investigating whether certain obligations have been implemented in an appropriate manner.

### 2.1 The DMA's objectives and the role of proportionality

The DMA states that its purpose is “to contribute to the proper functioning of the internal market by laying down rules to ensure contestability and fairness for the markets in the digital sector”<sup>3</sup>. Therefore it could be argued that contestability and fairness are the two main objectives of regulating gatekeepers.

However, the DMA also states that the ultimate objectives of the DMA are to promote<sup>4</sup>:

1. Innovation;
2. High quality of digital products and services;
3. Fair and competitive prices; and
4. Choice for end users.

The DMA may, in general, favour the ability and incentives of non-gatekeepers to improve the quality of their services and innovate. But if the way in which obligations are implemented poses an excessive burden on all CPS providers, including gatekeepers, the ultimate objectives of DMA may be at risk. This is because gatekeepers can also play an important role in innovating and improving end-user outcomes, and the DMA makes it clear that the ultimate objectives should be achieved for the digital sector as a whole<sup>5</sup>.

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<sup>2</sup> “The Commission may, on its own initiative or at the request of a gatekeeper pursuant to paragraph 3 of this Article, open proceedings pursuant to Article 20. The Commission may adopt an implementing act, specifying the measures that the gatekeeper concerned is to implement in order to effectively comply with the obligations laid down in Articles 6 and 7.” (Article 8(2))

<sup>3</sup> Recital (7).

<sup>4</sup> “Since the objective of this Regulation, namely to ensure a contestable and fair digital sector in general and core platform services in particular, **with a view to promoting innovation, high quality of digital products and services, fair and competitive prices, as well as a high quality and choice for end users in the digital sector**, cannot be sufficiently achieved by the Member States, but can rather, by reason of the business model and operations of the gatekeepers and the scale and effects of their operations, be better achieved at Union level, the Union may adopt measures, in accordance with the principle of subsidiarity as set out in Article 5 TEU. In accordance with the principle of proportionality, as set out in that Article, this Regulation does not go beyond what is necessary in order to achieve that objective.” (Recital 107)

<sup>5</sup> See Recital 107 above.

This is where we argue that proportionality has a role to play. In addition to being effective, the DMA makes it clear that the obligations should be implemented in a proportionate way<sup>6</sup>. Therefore, proportionality will likely be a consideration when gatekeepers are deciding how to implement specific obligations and/or the EC<sup>7</sup> has to assess whether the gatekeepers' proposals comply with the DMA.

The DMA indicates that proportionality is only relevant for the obligations in Articles 6 and 7, although there is still likely to be plenty of debate around how the Article 5 obligations should be implemented<sup>8</sup>. Whilst the DMA does not include a definition of proportionality, it is defined under EU law more generally. In particular, there are three aspects to proportionality<sup>9</sup>:

1. Measures must be suitable to achieve the desired end. In this context, obligations must be implemented so that they achieve the DMA's objectives, or at the very least avoid undermining them;
2. Measures must be necessary to achieve the desired end; which we interpret as they are needed to address the competition issue at hand as in absence of intervention, the market or ex-post competition law would not be able to resolve them; and
3. Measures must not impose a burden<sup>10</sup> on the "individual" that is excessive in relation to the objective sought to be achieved. It appears that this burden could relate to a wide range of actors, including the EU, national governments, regional or local authorities, economic operators and/or citizens<sup>11</sup>.

Given the above, and depending on the nature of the CPS, gatekeeper and of the obligation in question, proportionality would be required to achieve the DMA's ultimate objectives. Our view is that, by taking into account proportionality, the intermediary objectives of contestability and fairness will be applied in a way that is consistent with the DMA's ultimate objectives of improving innovation; quality, consumer's choice and fair and competitive prices.

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<sup>6</sup> For example, the DMA states that "In specifying the measures under paragraph 2, the Commission shall ensure that the measures are effective in achieving the objectives of this Regulation and the relevant obligation, and proportionate in the specific circumstances of the gatekeeper and the relevant service." (Article 8(7))

<sup>7</sup> While Article 5 includes the set of obligations for gatekeepers to address the practices that limit contestability or are unfair, Article 6 contains obligations for gatekeepers susceptible of being further specified and Article 7 covers horizontal interoperability of number-independent communication services.

<sup>8</sup> See Article 8(3) above

<sup>9</sup> More specifically this is laid out in Article 5(4) of the Treaty on European Union <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=LEGISSUM:proportionality>

<sup>10</sup> This could in principle be interpreted as compliance costs. But we consider that it may also be appropriate to focus on other adverse impacts on the gatekeepers and non-gatekeepers, such as for example the need to maintain security of data and/or impact on incentives and ability to innovate.

<sup>11</sup> "Draft legislative acts shall take account of the need for any burden, whether financial or administrative, falling upon the Union, national governments, regional or local authorities, economic operators and citizens, to be minimised and commensurate with the objective to be achieved." <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A12016E%2FPRO%2F02>

## 2.2 A framework to assess proportionality

In telecommunications, EU regulators adopt ex-ante regulatory frameworks that embed proportionality principles when considering whether regulation is required<sup>12</sup> and, if so, which regulatory option is the most suitable to address the competition issue in question, minimising market intervention<sup>13</sup>. In particular, regulators will consider whether a given implementation option or remedy: (i) produce expected benefits that outweigh the costs overall; (ii) supports the achievement of the objective; and (iii) is the least intrusive way of achieving the objectives in comparison with other options.

For example, Ofcom publishes an impact assessment guidance to assess the benefits, costs, and risks of different policy options<sup>14</sup>. These guidelines consider four key steps to defining proportional policies:

1. “understanding and scoping” – identifying policy needs and stakeholders affected;
2. “exploring possibilities” – identifying policy options;
3. “assessing a proposal” –assessment of the most significant cost and benefits with respect to a counterfactual scenario, for all stakeholders involved<sup>15</sup>.
4. “presenting the reasoning” – the outcome of the analysis above results in a suggested policy that is then subject to consultation.

As an illustration of the usefulness of proportionality, we apply these four steps to a specific provision in the DMA that is *horizontal interoperability*. We find that this policy and its implementation options present several trade-offs, indicating a number of factors that are likely to guide the gatekeepers’ design and the enforcer’s view of this design.

While the policy needs and implementation options under the DMA could be assessed purely towards achieving contestability and fairness, as explained earlier, there is a wider set of objectives that the DMA wants to pursue<sup>16</sup>. The proposed framework is built with this broader set of objectives in mind and to consider the trade-offs posed by different policy options, to show how considering proportionality can lead to better decision making.

In the following sections we develop this framework as follows:

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<sup>12</sup> This is through the three criteria test. The third criterion assesses whether ex post competition law is sufficient to ensure competition.

<sup>13</sup> This is at remedy stage. When considering different options, regulators take into account whether the burden of a given requirement is proportional to the competition issue that needs to be addressed.

<sup>14</sup> [https://www.ofcom.org.uk/data/assets/pdf\\_file/0023/255560/Impact-Assessment-Guidance.pdf](https://www.ofcom.org.uk/data/assets/pdf_file/0023/255560/Impact-Assessment-Guidance.pdf)

<sup>15</sup> A number of key principles that the regulator ought to follow when quantifying costs and benefits are: spelling out where there are uncertainties in the impact, including the cost of regulatory compliance, and how can policy side effects be mitigated. This step is particularly relevant for the purposes of assessing proportionality.

<sup>16</sup> That is innovation, choice for end users, fair prices and high service quality.



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1. We scope interoperability, setting out the concern it wants to address, the objectives, who are the key stakeholders and which are the key dimensions of competition being affected;
2. We identify the policy options when implementing interoperability;
3. We assess each of these policy implementation options from a cost benefit perspective for all stakeholders and dimensions involved – using a matrix framework.
4. We conclude, presenting our findings on how the application of a proportionality framework can provide new perspectives on policy implementation.

Before analysing the steps above, we provide an introduction to article 7 which covers horizontal interoperability in the DMA.

## 3 Applying proportionality to interoperability: an example

### 3.1 What is interoperability

Article 7 in the DMA includes a set of obligations that relate to **horizontal interoperability**<sup>17</sup> in number-independent interpersonal communications services (NIICSs)<sup>18</sup>. That is, the system that allows a consumer using a given digital messaging platform to communicate with a user that is on a different digital messaging platform. In an analogy with number-based messaging services, this system would work like SMSs which can be sent among users that use different network providers, but apply to services that are number-independent (i.e. do not use a phone number to communicate over traditional telecoms networks). Article 7 sets out in some detail: (i) what features of communication services will be subject to interoperability and (ii) what are the timelines for compliance.

In relation to the interoperable features, the DMA explicitly refers to the obligation for a NIICS gatekeeper to offer interoperability of basic functionalities. This is, as we explain further below: texts, calls and video-calls and attachments. Interoperability should be provided upon request of a third-party NIICS and this access should be provided free of charge. Further, the DMA specifies that the level of security, including end-to-end encryption, integrity and privacy standards needs to be preserved across the interoperable services. The gatekeeper also has the obligation to publish a reference offer laying down the general terms and conditions, as well as technical details for access. The gatekeeper will be able to collect and exchange with accessing NIICSs only the personal data of end users that is strictly necessary to provide effective interoperability. The user will then be informed of this system and will be free to decide whether they want or not to interoperate with other services.

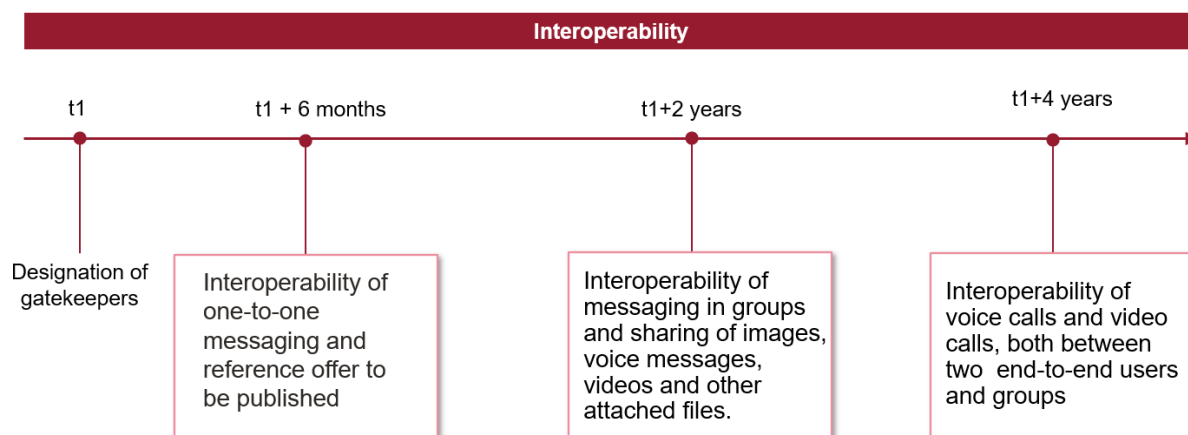
Timelines for interoperating specific features are also prescribed by Article 7. The first features to be made interoperable are text messages, followed by other contents such as images, voice messages and videos and, later on, voice and video calls. Additionally, the DMA mandates that, once the reference offer has been published, a gatekeeper shall comply with any reasonable interoperability request within three months.

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<sup>17</sup> Interoperability is “the ability to exchange information and mutually use the information which has been exchanged through interfaces or other solutions, so that all elements of hardware or software work with other hardware and software and with users in all the ways in which they are intended to function”, from Article 2, point (29) of the DMA. Note that horizontal interoperability differs from vertical interoperability as the former relates to the interoperability of competing services while the latter relates to services provided at different levels of the value chain, as for example payment systems which are an input to downstream apps on multiple operating systems.

<sup>18</sup> Defined as services which do “not connect with publicly assigned numbering resources, namely, a number or numbers in national or international numbering plans, or which does not enable communication with a number or numbers in national or international numbering plans.” Source: Article 2, point (7), of Directive (EU) 2018/1972.

Figure 1 Timelines for complying with interoperability in Article 7, paragraph 2



Source: Frontier Economics based on Article 7(2), DMA

Note: [Insert Notes]

### 3.2 Step 1: Scoping interoperability

In order to scope the needs for interoperability, we first need to establish the market failures in the market for NIICs that warrant ex-ante intervention. The DMA finds that network effects – i.e. the fact that platforms in messaging with a large number of users are more attractive to new users - constitute a high barrier to entry for competitors in the market, hence reinforce the market power of gatekeeper NIICs.

The key objective of the legislation is to increase contestability in the market for NIICs. We note that this article was only included during the final discussions of the draft DMA in March 2022, with a specific provision (i.e. Article 7). So this provision is neither grouped together with other obligations (as with Article 5) nor is due to be further specified (as provisions under Article 6). This provision raises questions on multiple levels, including in terms of technical feasibility, impact on end user privacy and security. and impact on competition in the market. As we discuss further below, this obligation and its implementation present important trade-offs in relation to these and other dimensions.

We expect the key stakeholders affected by this policy to be:

- **Consumers**, which use these services currently or plan to do so;
- **Gatekeeper NIICs**, which are the platforms that meet the gatekeeper thresholds in relation to this CPS.
- **Competitors** to gatekeeper NIICs, which are currently in the market or plan to launch a service in this space.

When measuring the impact on the above stakeholders, it is helpful to establish a set of dimensions of the service and of the NIIC market that will be affected by interoperability.

While there are potentially a larger number of aspects that can be considered, we focus on the following key dimensions, in line with the ultimate objectives of the DMA<sup>19</sup>:

- **Choice for end users**, this is a result of increased competition in NIIC services (contestability) and service differentiation. End users are, from the outset, the key stakeholder that stand to benefit from increased levels of choice in the market. However, as we explain further below<sup>20</sup>, also gatekeepers and competitors will be affected by this dimension, although the direction of this effect is uncertain.
- **Innovation**, this is the ability to invest in and improve the messaging services. Competitors and gatekeepers are primarily driving this dimension, and also end users are affected in the medium-long run.
- **Quality of service**, which are the characteristics of the gatekeepers NIIC service that are primarily perceived by consumers of the existing services but will also drive the decisions of the gatekeeper platform.
- **Security and data protection**, which is the level of security and privacy of the existing NIIC service, which again primarily affects consumers and gatekeepers.
- In addition, as explained previously, it will be important to consider the burden that the policy option imposes on stakeholders that need to comply with it. Therefore, we consider the **design and compliance cost of interoperability**, as additional dimension that affects primarily gatekeepers and competitors.

Figure 2 summarises this framework, singling out the stakeholder groups most directly affected in each dimension<sup>21</sup>.

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<sup>19</sup> Note that we cover all of the objectives set out in the DMA, only excluding *fair and competitive prices* given that NIICs are currently (and can be reasonably expected to continue to be) free of charge. The DMA also mandates that interoperability is provided free of charge.

<sup>20</sup> See footnote 22.

<sup>21</sup> Note that this does exclude that other stakeholder groups may also be affected in the medium-long run by interoperability in a given dimension.

Figure 2 Proposed framework for assessing proportionality

Dimensions / DMA's objectives	Consumers	Competitors	Gatekeepers
Choice for end users	✓	✓	✓
Innovation		✓	✓
Quality of service	✓		✓
Security and data protection	✓		✓
Design and compliance costs		✓	✓

Source: Frontier economics

In the next two sections we identify the policy options for the technical implementation of interoperability (Step 2) and, for each of them, we analyse the costs and benefits across the above dimensions (Step 3).

### 3.3 Step 2: Policy options

As shown earlier, interoperability is already quite well defined in Article 7. This article establishes some important features of the policy such as: (i) the gatekeeper will have to provide the service to access seekers upon request and free of charge, (ii) on NIICs, only a set of basic features will have to be interoperable (that is messaging, calls and video calls), (iii) the gatekeepers are legally responsible for developing the interoperability solutions (potentially with the help of external bodies if needed), (iv) the timelines by which the gatekeepers should offer interoperability. However, some other features are still undefined and therefore different implementation options can be envisaged. As an example, we take technical solutions to implement interoperability which can, broadly speaking, follow one of three models:

- **Bridges and APIs**, where different services are made interoperable with each other (i.e. the message stream of two different services are synchronised) via a separate bridge or directly through a separate API. There are two key solutions in this space:
  - Client-side bridging using **server-side APIs**, which means interoperability is enabled through an API connecting to the gatekeeper's server. The access seeker can reach this server by developing its own bridge or a third-party can build it for the access

seeker. In practice, consumers would have to install an app on their phone that “liberates” the user’s communication from the gatekeeper app to the server which in turn allows the user to communicate with the wider DMA interoperable network which leads to other apps via bridges. In this case, the gatekeeper would just need to share their server-side APIs and access seekers build a bridge to the server.

- Client-side bridging using **client-side APIs** is similar to the previous model. However, in this case the bridging app connects directly to the gatekeeper app, instead of connecting to its server. This solution still requires the user to install a bridging app, but where the bridge was previously talking to the gatekeeper’s server, this time it talks straight to the gatekeeper app. While the gatekeeper does not need to modify its own app, it would need to work to bridge each new client-side API.
- **Multi-headed or polyglot applications**, which embed the alternative messaging “channels” in the gatekeeper’s own app. Under this model, the gatekeeper needs to implement two protocols: (i) the gatekeeper existing closed environment, and (ii) the open DMA environment interoperating with other apps. This solution is the one adopted currently, for example, by Apple’s iMessage which allows an iOS user to communicate with other iOS users via iMessages and to non-iOS users via SMSs, in the same app. The gatekeeper would effectively need to embed the bridge into its own app such that the user would not have to download a separate bridging app.
- **Standardisation**, also referred to as “consolidated protocol”, which would be an open and ever-changing set of standards that are adopted across the board by all NIICSs. These standards would have to be agreed upon by the entire industry, their design led by gatekeepers potentially with the help of external bodies, and would require the standards to be open so that they can evolve quickly as new features emerge.

In the next section, we carry out the proportionality assessment for comparing these policy options. This exercise is relevant to put into perspective what is the impact of the policy options on (i) each of the stakeholder groups and (ii) on the relevant service and market dimensions, at the core of the DMA’s objectives.

### 3.4 Step 3: Proportionality assessment

As explained above, experts identify three key models for implementing interoperability. At this point, we want to assess the different policy options for the technical implementation of interoperability through proportionality lenses. The purpose of this exercise is to show that a view that does not factor in proportionality (i.e. impact on different stakeholders and service or market dimensions) ignores that a given option could have unintended consequences or be sub-optimal with respect to certain service dimensions or stakeholders.

For example, standardisation may look like the best outcome for competitors from a fairness and contestability perspective, if an independent body was to create a set of transparent and common rules for all competitors in the market. However, as explained further below, this assessment may be incomplete if it ignores the potential negative impact standardisation would have on other objectives of the DMA, such as innovation. Even within the same

stakeholder group, the same policy could affect different dimensions in opposite directions. Continuing with the standardisation example, while this option may look like the best outcome for users from a quality of service and security perspective, it may reduce product differentiation hence the choice for consumers, as parties would need to agree on a common denominator for the standards.

To address this point we apply basic principles of cost and benefit analysis on the service/market dimensions that we consider relevant, comparing interoperability with a counterfactual without this obligation. Additionally, we compare policy options among them along these dimensions.

### ■ Choice for end users

- Costs: Product differentiation is more limited or absent in the basic features (texts, calls and video-calls, attachments) which could translate in reduced choice for end users, as services would be more homogeneous.
- Benefits: (i) interoperability is expected to increase choice for end users through contestability, by reducing barriers to entry and increase competition. In fact, interoperability is introduced with the aim to reduce barriers for users to switch to NIIC services that have fewer users and do not enjoy large-platform network effects<sup>22</sup> (ii) while products may be more homogeneous (see costs above), features beyond basic functionalities which are outside of the scope of Article 7 – e.g. self-deleting messages – may still allow some degree of service differentiation.
- Policy options: Bridges and multi-headed apps may lead to higher product differentiation than standardisation, as gatekeepers and competitors get to maintain their own services hence preserving some degree of differentiation. In principle, no model is expected to achieve greater benefits than others.

### ■ Innovation

- Costs: Fewer incentives by gatekeepers to invest in innovation on features that are being interoperated ('basic features') as the gains to innovation will be lower (gatekeepers share the benefits but not the costs with competitors) and access is provided free of charge. In principle, the non-gatekeepers would have the same incentives to invest as without interoperability, once they enter the market. In the round, interoperability is likely to lead to lower levels of innovation compared to the no-interoperability scenario.
- Benefits: N/A<sup>23</sup>

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<sup>22</sup> However, some research points to there being a potential downside to competition with interoperability, given it substitutes multi-homing as the standard of competition. Users might be able to communicate with non-gatekeeper NIIC services while remaining on the GK service, therefore actually reducing the incentives to use multiple services (while with multihoming, the entrant, if it survives, it can then reach a sufficient scale in the market to displace the incumbent). For example, some NIIC providers, such as Signal and Threema, have announced that they are not envisaging using the interoperability provision.

<sup>23</sup> Innovation from gatekeepers may improve selectively additional features that fall outside of scope of Art. 7, however we do not consider this to generate benefits over the no-interoperability scenario.

- Policy options: Bridges and multi-headed apps can provide some more incentives for gatekeepers to innovate than with standardisation as with product differentiation above. Although there will likely be fewer incentives to innovate than absent the interoperability obligation. In principle, no model is expected to achieve greater benefits than others.
- **Quality of service**
  - Costs: (i) interoperability may make current services (on-net communications) harder to use or slower (ii) gatekeepers may have incentives to degrade quality of access or provide a higher quality of service on non-basic functionalities / when using the on-net features<sup>24</sup>, (iii) the user may need to download a separate app (iv) increased risk of unwanted messages (being contacted by unwanted third parties outside the control/filter of gatekeepers) or an excessively large number of requests to connect (if no minimum thresholds are established any new NIICSs in a user's contact list could send a request).
  - Benefits: (i) increased choice for end user; (ii) improved connectivity off-net; (iii) one-stop-shop for messaging.
  - Policy options: standardisation is likely to provide the best solution in terms of user experience as it would address at least costs (ii) and (iii). Multi-headed apps are likely to address cost (iii), while for bridges all costs would apply. In principle, no model is expected to achieve greater benefits than others.
- **Security and data protection**
  - Costs: (i) end to end encryption may not be guaranteed under all bridging models (ii) security level likely to worsen overall, as data is shared across a higher number of players and each party may have an insufficient incentive to protect the data (since it may not fully internalise the costs of a security breach).
  - Benefits: N/A.
  - Policy options: in principle bridges are likely to present the highest costs in terms of security loss. This is as end to end encryption is not possible with server-side APIs (because the message is decrypted and then re-encrypted on a platform, rather than on the users own device, which effectively would not break end-to-end encryption). The level of security is overall lower when using bridges than potentially with multi-headed apps or standardisation (which could also include agreeing on security/privacy standards).<sup>25</sup> It is important to note that under none of these models the risk of a security breach is expected to be as low as it would be under non-interoperable systems.
- **Design and compliance cost of interoperability**

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<sup>24</sup> In telecoms regulation, while interconnection is in place, differentiated price-terms between on and off net services mean that end users could pay different prices for services on their own operators' network or on other competing networks. Art. 7 may not be sufficiently prescriptive to avoid something similar happens – it specifies that the gatekeepers have to provide “the necessary technical interfaces or similar solutions that facilitate interoperability, upon request, and free of charge”.

<sup>25</sup> Meta has taken explicitly the view that server-side bridges are not a viable option because they do not enable end-to-end encryption, according to them also client-side bridges may constitute security threats.



- Costs: (i) Gatekeepers have the legal responsibility to comply with this obligation in Article 7 and will not receive a monetary compensation in exchange for it; (ii) Design is costly and time-consuming; (iii) Compliance costs may constitute a barrier for competitors with small scale.
- Benefits: N/A.
- Policy options: For the gatekeeper, compliance costs are lowest with bridges (especially server-side), as the gatekeeper only develops an API to connect either to its own server or to the competitors' app. An intermediate effort solution is when the gatekeeper needs to integrate other channels in its multi-headed app. Standardisation would likely imply more significant costs to gatekeepers (and the wider industry) as it would require to “reset” the platforms to adopt new standards. Under this scenario, the current investments of the gatekeeper in developing existing solutions would be lost. For access seekers, it is the opposite: compliance costs are highest when they have to develop their own bridges and lowest under multi-headed apps and standardisation (this latter will depend on the level of involvement of the competitor in the development of the standards).

All of the above indicates different possible effects of each implementation option, in relation to different dimensions and stakeholders. This framework highlights that a given policy option that may foster contestability and fairness, such as standardisation, may negatively affect end users' choice in terms of product differentiation or innovation, which are also long-term objectives of the DMA. On the other hand, other policy options, such as bridges, may preserve differentiation and innovation, while reducing levels of security and requiring end users to download a separate bridging app.

### 3.5 Step 4: Conclusions of the proportionality assessment

The above table illustrates that:

- All implementation options (and interoperability per se) present a number of trade-offs. No option has clear positive net benefits across every and each dimension and stakeholders.
- When assessing the appropriateness of a given implementation option, if the enforcer just aims at the intermediate objectives of the DMA (i.e. contestability and fairness), there is a risk that other key aspects affected by interoperability may be ignored (e.g. innovation, design costs for both gatekeepers and competitors).
- Choosing a given implementation option without considering proportionality could lead to sub-optimal decisions. For example, while standardisation may look like an attractive option for achieving fairness and contestability, it is a very costly measure to implement and it may reduce product differentiation.
- There are instances where the view of gatekeepers and non-gatekeepers may be aligned on certain dimensions. For example, standardisation is likely to lead to the lowest possible service differentiation which is not desirable for either gatekeepers and competitors, while

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it may provide greater security to the end user. In other instances, the view of gatekeepers and users are aligned, as the gatekeeper wants to preserve the best user experience and level of security to retain its market share, for example by reducing unwanted third-party messages, while this may go against the interests of competitors.

## 4 Conclusions

Gatekeepers are currently in the process of deciding how they will comply with the various obligations within the DMA. Given that the obligations in the DMA have not been defined in detail, there is likely to be considerable debate around how the obligations should be implemented in practice.

As well as ensuring that the obligations are implemented in an effective way, proportionality is also likely to play a role, as it is mentioned a number of times within the DMA. In this paper, by using a framework applied in telecommunications to the example of interoperability, we explore how proportionality can be decisive to achieve the ultimate objectives in the DMA, that is high quality of digital services, innovation, fair prices and choice for end users. Assessing the impact of different implementation options on a range of stakeholders and service dimensions lies at the heart of the proportionality framework that we propose. We find that there are trade-offs underlying each policy implementation option, as each stakeholder group would rank options differently across different dimensions. Choosing a given implementation option without considering proportionality could lead to sub-optimal decisions and risks ignoring important effects of a policy option.





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