MALTA COMMUNICATIONS AUTHORITY

DECISION NOTICE

Preventative measures to mitigate CLI spoofing and vishing scams

Report on Consultation and Decisions

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1 Introduction

1.1 Context

Scams which involve the spoofing of the Calling Line Identification (CLI) for calls and the Sender ID for SMS are on the rise globally, facilitated in their spread and evolution by advancements in online communications solutions. Scammers increasingly rely on spoofing of locally known numbers for voice calls (*vishing*) or of familiar SMS Sender IDs (*smishing*), to abuse of potential victims' knowledge of, and trust in, such numbers and identifiers.

Such 'social engineering fraud' scams[1] *"exploit a person's trust in order to obtain money directly or obtain confidential information to enable a subsequent crime"*. Such scams have a cross-industry effect with impacts that are simultaneously social, economic, and regulatory in nature: thus, multi-faceted solutions are a must.

From the perspective of the Malta Communications Authority (MCA), scams based on the misuse and/or unauthorised use of numbering resources and identifiers can understandably have a negative impact on subscribers' trust in such numbers and identifiers, and on the consumption of electronic communications services (ECS) in general. This Decision Notice therefore presents nine *Decisions* intended to mitigate the impact of misuse and unauthorised use of national numbering resources through measures introduced at an electronic communications network (ECN) level with the aim to contribute, in conjunction with other measures, towards the broader fight against such scams.

1.2 Background

The publication of this Decision Notice was preceded by a public consultation process which sought input on the MCA's Consultation Paper entitled "Consultation and Proposed Decisions: Preventative measures to mitigate CLI spoofing and vishing scams" (MCA/C/23-5080; hereafter, '*Consultation Paper*'). The public consultation process ran between 29 September 2023 and 15 November 2023, during which process the MCA actively reached out to various stakeholders to encourage the submission of feedback. Further information on this public consultation process, and the responses thereto by various respondents, is provided in the next section (1.3).

By way of background to the subject at hand, it is pertinent to note that scammers can nowadays leverage multiple ECS channels to target their victims, and that phone calls and SMS are among the channels most used for such scams. Drawing from the desk research carried out by the MCA, as well as insights obtained through participation in international fora and discussions with local ECS providers and other stakeholders alike, the MCA determined that the majority of scam calls are transited into the country from abroad, via operators of international network interfaces.

[1] Interpol, *Social Engineering Scams*. Accessible at https://www.interpol.int/en/Crimes/Financial-crime/Social-engineering-scams. Last accessed on 10 April 2024.

This 'international dimension' to scam calls is a characteristic of scam communications across the globe and is therefore not exclusive to communications targeting Malta. It should be noted, however, that this characteristic adds an element of complexity in the fight against scams, since *illegitimate* calls (e.g. where there is misuse, unauthorised or fraudulent use of numbers) invariably mix with *legitimate* calls received over international network interfaces.

In the run up to publishing the abovementioned *Consultation Paper* and this Decision Notice, the MCA also became aware of the correspondingly global effort to study and implement a wide range of (potential) solutions. Such solutions include, amongst others, measures to block calls through rule-based filters (e.g. calls where the Calling Party Number (CgPN) is from specific numbering range(s), calls where the CgPN is "blacklisted", or calls where the CgPN is clearly invalid or incomplete). Some solutions also propose the use of real-time checks (e.g. on roaming status) to detect possible spoofing of mobile numbers, whereas others consider the application of artificial intelligence (AI) to analyse traffic patterns for unusual activity which could be indicative of potentially fraudulent behaviour.

Since 2021, the MCA has engaged with locally authorised[2] undertakings who operate international network interfaces. In particular, the MCA sent out exploratory emails to these undertakings in order to seek industry input on ECS-based scams experienced in Malta which involve the spoofing of the CLI and/or SMS Sender IDs. These exchanges were also intended for the MCA to obtain initial insights on potential preventative measures that could be introduced at an ECN level to mitigate such scams and the capabilities within local operators' networks to implement these measures.

In view of the increasing prevalence of vishing and smishing scam attacks experienced in the first half of 2023, the MCA stepped up its activity in this area and, during the period June to September 2023, the MCA carried out preliminary discussions on potential preventative measures[3] with locally authorised undertakings who operate international network interfaces. The MCA also set up an ad hoc steering committee, including participants from each of these operators, with the primary focus being for participants to provide preliminary feedback and recommendations on the practicability, implementation timeframes, costs and benefits of different potential preventative measures that may be considered to mitigate CLI spoofing, vishing and smishing.

At the time of these preliminary discussions, the MCA had expressed its preference that such preventative measures should be introduced in an incremental approach, in order to address the matter in a timelier manner. In this regard, the measures proposed were captured under three broad phases, representative of potential phases of intervention, as follows:

[2] The term "locally authorised" refers to a situation where an undertaking is notified for a general authorisation with the MCA to provide specific ECN and/or ECS in accordance with its respective general authorisation category (e.g. voice communications services, public electronic communications networks, etc.). Locally authorised undertakings are included in the Register of Authorised Undertakings for providers of ECN and/or ECS, which is publicly available on the MCA's website.

[3] In Annex 2 of the *Consultation Paper*, the MCA describes the five *Candidate Measures* that were discussed with operators of international network interfaces during the preliminary discussions.

- **Phase 1:** Measures to address incoming calls over international network interfaces with potentially spoofed national CgPN (except where the CgPN is from the '4X', '7X' or '9X' numbering range);
- **Phase 2:** Measures to address smishing; and
- **Phase 3:** Extend **Phase 1** to include also incoming calls over international network interfaces with potentially spoofed national CgPN from the '4X', '7X' or '9X' numbering range.

Drawing on the preliminary feedback provided by the local operators forming part of the ad hoc steering committee, the MCA concluded that, initially, it would be more appropriate to focus on some of the measures proposed under **Phase 1**. In particular, the feedback received during this preliminary stage had confirmed that preventative measures targeting incoming calls over international network interfaces with potentially spoofed national CgPN (except where the CgPN is from the '4X', '7X' or '9X' numbering range) would likely represent the best balance between practicability, implementation timeframes, costs, and benefit.

Accordingly, the MCA published a *Consultation Paper* where the principal scope was to propose preventative measures, implementable at the technical (network) level, that can mitigate the number of calls, destined towards Maltese numbers, where scammers spoof national numbers to perpetrate vishing scams. The *Consultation Paper* was thus restricted to proposed preventative measures that would fall under the scope of **Phase 1**, as described above.

The *Consultation Paper* therefore did not address potential preventative measures targeting other forms of ECS-based scams, such as those involving SMS with manipulated Sender IDs (smishing), or vishing scams where the CgPN is from the '4X', '7X' or '9X' numbering range. In the *Consultation Paper*, the MCA recognised that such scams may also lead to end-user harm, but it was also noted that the introduction of corresponding measures (falling under **Phase 2** and **Phase 3**), merited more extensive study before the MCA could proceed to a public consultation and eventual decisions. Thus, these aspects are not within scope of this Decision Notice.

1.3 Responses to the Consultation

The consultation period ran from 29 September 2023 up to 15 November 2023. The MCA received submissions from six respondents, including feedback from five locally authorised ECS providers, and a further submission from an interested party, as follows:

Locally Authorised ECS Providers

- Epic Communications Limited
- GO p.l.c.
- Melita Limited
- Microsoft Ireland Operations Limited
- Vanilla Telecoms Limited

Other parties

- Bank of Valletta p.l.c.

In the first instance, the MCA wishes to thank all the respondents for their constructive responses. Due to potential business sensitive information, the MCA is refraining from associating particular comments with any specific respondent.

Most of the feedback received related specifically to the *Proposed Decisions*, and will accordingly be addressed at a later point (*see* Chapters 4 to 6). However, some of the feedback raised related to the rationale behind the consultation, or its scope, and this is therefore addressed hereunder.

1.3.1 General feedback and MCA reaction

On the MCA's rationale to consult and take action on mitigating CLI spoofing and vishing scams, the feedback received was by and large positive. Indeed, four respondents specifically welcomed the opportunity to provide feedback on the *Consultation Paper*. More specifically, whilst one of these respondents 'applauded' the MCA's work in this regard**,** it nevertheless cautioned against adopting measures that could inadvertently harm Maltese users by disrupting legitimate business models. In this regard, this respondent recommended combatting fraudulent spoofing by adopting technological measures based on industry standards to authenticate CLI, such as through the STIR/SHAKEN framework. Whilst the detailed insights shared on the STIR/SHAKEN framework were appreciated, the MCA wishes to remind that the adoption of such an approach had already been discussed in the published *Consultation Paper*. For the reasons listed therein, the adoption of such framework was considered out of scope for the time being. This aspect is being addressed in further detail in Section 4.1 of this Decision Notice.

Another respondent noted that, while it highly appreciated the measures proposed by the MCA to tackle vishing scams, there are far more scams that rely on SMS. It therefore recommended that SMS-based scams (smishing) should be addressed before or in tandem with vishing scams. In this regard, the MCA acknowledges the significant problems caused by smishing scams. However, based on the insights available to the MCA, it was concluded (and reported in the same *Consultation Paper*) that action to target smishing required further study, and that it would have been premature, at the time, to publicly consult on proposed preventative measures to combat smishing scams.

Besides the above, one of the respondents corroborated the MCA's views that vishing scams are increasing globally, whilst becoming more complex. In the process, it was noted that these scams are threatening the telecommunications industry, by reducing trust in the authenticity of telephone interactions and challenging the provision of secure and reliable services. This respondent also recognised that the problem of vishing scams is multifaceted in nature, and that there is no absolute measure that can obliterate the issues faced by individuals and institutions. Therefore, a cohesive and structured framework must be agreed upon between key stakeholders operating in the market. Furthermore, it was argued that sustaining educational efforts is imperative, as individuals are the weakest link in such cases. Indeed, this respondent stressed that the pivotal role of user awareness and education cannot be understated. The MCA concurs with the views expressed and is committed to sustain its efforts on the education and awareness front. Moreover, the MCA is also committed to both sustain ongoing participation, as well as explore new opportunities thereof, in cross-sectoral coordination amongst stakeholders interested in combating scams reliant on ECS.

Lastly, one of the respondents cautioned that the measures to be introduced ought to take into consideration the current technology and any constraints in place. In this respect, the MCA wishes to clarify that, whilst the preventative measures and corresponding decisions in this Decision Notice are all underpinned by the principle of technology neutrality, insights on the current technical capabilities – and limitations – were also taken into account by the MCA in the final *Decisions* being brought into force through this Decision Notice.

1.4 Structure of the document

This Decision Notice is structured as follows: Chapter 2 presents key **definitions and abbreviations**, and is followed, in Chapter 3, by an account of the MCA's **legal basis** to intervene in this domain. Next, Chapter 4 presents those **high-level principles** that underpin the decisions in this Decision Notice, largely based on the same principles that guided the preventative measures proposed in the *Consultation Paper*. In particular, given the specific principle to mitigate the negative impact of the preventative measures on *legitimate calls*, this chapter also explores different scenarios whereby legitimate calls with a Maltese CgPN would appear to be incoming over international network interfaces. This is done with a view to introduce a taxonomy for **'types' of legitimate calls** for which specific safeguards are merited to mitigate unwanted negative impacts (*see Annex 1: Legitimate Call Types* for further insights). Subsequently, Chapter 5, entitled **Preventative Measures and Corresponding Decisions**, lays down the framework of measures intended to mitigate CLI spoofing and vishing scams. In this chapter, the MCA presents a discussion on the feedback received on the *Consultation Paper*'s proposed preventative measures, and the corresponding decisions taken. **Performance monitoring** (Chapter 6) and **implementation** considerations (Chapter 7) are addressed next.

2 Definitions and Abbreviations

2.1 Definitions

For the purposes of this Decision Notice, the following definitions shall apply:

Term	Definition
CLI Spoofing	A technique that enables the originating party and/or any network operator handling the call to manipulate the information displayed in the CgPN field with the intention of deceiving the receiving party or the network operators intervening in the handling of the call into thinking that the call originated from another person, entity or location.[4]
Maltese Number / National Number	An ITU-T E.164 number[5] from the Maltese National Numbering Plan.
Operator of International Network Interfaces	Any undertaking that conveys traffic from networks located outside Malta towards networks located in Malta (including, as applicable, its own network), and vice versa, over its international network interfaces.
Sender ID	An alphanumeric string that can be used as the "From" address for SMS text messages. Whilst legitimate Sender IDs identify the sender by using associated names, brands or phone numbers, scammers sometimes replicate such Sender IDs to pose as the legitimate business/entity.
Sender ID Spoofing	A technique that enables the originating party and/or any network operator handling the message to manipulate the information displayed in the Sender ID field with the intention of deceiving the receiving party or the network operators intervening in the handling of the message into thinking that the message originated from another person, entity or location.[4]
Smishing	Fake text messages purporting to be from a legitimate source such as a bank, postal operator or e-commerce site, (generally through the use of Sender ID spoofing), which are used to induce individuals to reveal personal or financial information.[6]
Vishing	Fake telephone calls purporting to be from a legitimate source such as a bank, postal operator or e-commerce site, (generally through the use of CLI spoofing), which are used to induce individuals to reveal personal or financial information.[6]

[4] Adapted from CEPT ECC (2022). *ECC Report 338 - CLI Spoofing*. Accessible at https://docdb.cept.org/download/4027

[5] ITU-T (2010). *The international public telecommunication numbering plan.* Accessible at https://www.itu.int/rec/T-REC-E.164-201011-I/en

[6] Adapted from Interpol, *Social Engineering Scams*. Accessible at https://www.interpol.int/en/Crimes/Financial-crime/Social-engineering-scams. Last accessed on 10 April 2024.

2.2 Abbreviations

The following abbreviations are used throughout this Decision Notice:

Abbreviation	Meaning
AI	Artificial Intelligence
CdPN	Called Party Number(s)
CDR	Call Detail Record
CEPT	European Conference of Postal and Telecommunications Administrations
CFB	Call Forwarding on Busy
CFNRc	Call Forwarding on mobile subscriber Not Reachable
CFNRy	Call Forwarding on No Reply
CgPN	Calling Party Number(s)
CLI	Calling Line Identification
ECC	Electronic Communications Committee
ECN	Electronic Communications Network(s)
ECS	Electronic Communications Service(s)
FTN	Forwarded-To Number
IoT	Internet of Things
ISUP	ISDN (Integrated Services Digital Network) User Part
ITU-T	International Telecommunication Union's (ITU's) Telecommunication Standardization Sector
KYC	Know Your Customer
M2M	Machine-to-Machine
MCA	Malta Communications Authority
MSRN	Mobile Station Roaming Number
NB-ICS	Number-Based Interpersonal Communications Service(s)
Non-ICS	Non-Interpersonal Communications Service(s)
OTT	Over-the-Top
PAID	P-Asserted Identity

Abbreviation	Meaning
PECN	Public Electronic Communications Networks
PoI	Point of Interconnection
SHAKEN	Signature-based Handling of Asserted information using toKENs
SIP	Session Initiation Protocol
S.L.	Subsidiary Legislation
SMS	Short Message Service
SS7	Signalling System No. 7
STIR	Secure Telephone Identity Revisited
T&Cs	Terms and Conditions
VCS	Voice Communications Services
VLR	Visitor Location Register
VoIP	Voice over IP

3 Legal Basis

In accordance with regulation 80(1) of the Electronic Communications Networks and Services (General) Regulations (S.L. 399.48), the MCA is responsible to establish and manage the national numbering plan for electronic communications services and shall control the granting of rights of use for all national numbering resources.

In this context, and in accordance with regulation 7(1) and the First Schedule, Part E of S.L. 399.48, the MCA attaches a number of conditions upon granting rights of use for national numbering resources including, but not limited to:

- prohibiting the use of certain numbers as CLI (e.g. numbers from '5X' range);
- requiring that any sub-allocation of national numbers shall be subject to prior authorisation of the MCA, and if authorised, a number of conditions would be determined by the MCA on a case-by-case basis; and
- requiring that sub-allocated national numbers are not used for the provision of voice communications services.

In view of its mandate on the assignment and rightful use of national numbers, the MCA considers it is of paramount importance, and its duty, to safeguard the public's trust in such numbers and, more generally, in electronic communications networks and services (ECN/S). Scam communications abuse of, and eventually erode such trust, and it is therefore important to the MCA to combat such practices.

Furthermore, regulation 83(2) of the same S.L. 399.48 mandates that the MCA *"may require providers of public electronic communications networks or publicly available electronic communications services to block, on a case-by-case basis, access to numbers or services where this is justified by reasons of fraud or misuse, and to require that in such cases providers of electronic communications services withhold relevant interconnection or other service revenues".* This regulation empowers the MCA to order such providers to implement measures that lead to the blocking of access to specific numbers or services, depending on the case, provided that this is justified by reasons of fraud or misuse.

Additionally, it should be noted that the First Schedule, Part C, point (3) of S.L. 399.48 states that the MCA is empowered to attach conditions, tied to the provision of ECS, that constitute *"consumer protection rules specific to the electronic communications sector"*. It is the MCA's view that the imposition of preventative measures to mitigate CLI spoofing and vishing scams would also contribute to protecting consumers from the harmful effect of scams perpetrated in the electronic communications sector.

Lastly, it should be noted that criminal investigations of individual cases of ECS-based scams fall outside of the MCA's remit. However, the MCA cooperates with law enforcement authorities whenever it is requested to do so. Furthermore, where the MCA is informed of specific cases of ECS-based scams, it has the right to address any shortcomings arising from non-compliance with relevant MCA Decisions or conditions attached to a general authorisation and/or to the granting of rights of use for numbering resources, amongst others.

4 High-Level Principles and Legitimate Calls

4.1 High-level Principles

In the *Consultation Paper*, the preventative measures put to consultation were underpinned by six high-level principles. Bar some minor clarifications, these principles are being reproduced hereunder. Some of the feedback received was specifically related to these principles, and is being reported and addressed in this chapter. The six principles follow:

1. **CLI spoofing[7] is not a practice that is necessary for legitimate calls**, so it is logical to presume that calls using spoofed numbers are intended to deceive the called party and to perpetrate malicious activity. As a minimum, spoofed numbers may include:
   a. the unauthorised use of an ITU-T E.164 number assigned to a subscriber by another natural or legal person(s) (e.g. a scammer using a number assigned to a bank when originating scam calls);
   b. the use of an ITU-T E.164 number from vacant numbering ranges or unallocated numbering blocks; and
   c. the use of numbers that do not constitute a valid CgPN (e.g. incomplete or incorrect presentation of an ITU-T E.164 number).

   In respect of this principle, one respondent remarked that *"it is important to highlight that not all number "spoofing" or Calling Line Identification (CLI) number manipulation is fraudulent or performed with malicious intent"*, and added that *"there can be necessary reasons for number "spoofing" (for) legitimate calls"*. The MCA wishes to clarify that the *Consultation Paper* used the term "spoofing" specifically to define situations where there is malicious intent, as noted in the definitions and Footnote 6 of the same document. The same meaning of the term "spoofing" is being retained in this Decision Notice, as reflected in Section 2.1 and Footnote 7 hereunder. This definition therefore **excludes** legitimate situations where there is no malicious intent behind the need or desire to change the number to be displayed. More importantly, the measures put forward included specific parameters intended to minimise, as far as possible, the impact on the conveyance of legitimate calls which could fall within scope of the blocking measures proposed.

2. The MCA is informed that the majority of scam calls with a spoofed Maltese number as CLI are transited into national territory over international network interfaces from abroad. **It is therefore pragmatic to specifically target calls, purporting to be from national numbers, that are received in Malta over such international network interfaces.** Operators of international network interfaces transiting such calls into Malta are thus best placed to take preventative action.

   The MCA is pleased to note that this principle was not contested by any respondent to the *Consultation Paper*, and it thus reinforces the MCA's conviction that intervening at this level is warranted and practical.

[7] It should be noted that there could be legitimate reasons for the CLI of an outbound call to be *manipulated* by the caller, (e.g. calls from the mobile phones used by a company's employees presenting the same company's contact number to the called party), but such manipulation would not constitute spoofing if there is no malicious intent.

3. Techniques to authenticate call origination information (e.g. STIR/SHAKEN) require significant lead time to be developed and implemented successfully, particularly on a cross-border basis. Moreover, as mentioned in *High-Level Principle (2)*, given that most spoofed calls with a Maltese number as CLI are transited into national territory from abroad, there would be minimal effectiveness of introducing techniques to authenticate call origination information at a local level. Indeed, the involvement of foreign countries would be required for a widespread, and effective, implementation of such techniques on a cross-border basis. **Thus, in the *Consultation Paper*, the MCA did not request feedback on interventions targeting the authentication of call origination, and considered such interventions as being out of scope.**

   Notwithstanding, as noted in sub-section 1.3.1, one respondent provided significant insights on the potential benefits of adopting STIR/SHAKEN, particularly highlighting the ongoing work to develop a *"cross-border STIR/SHAKEN authentication framework that would enable providers to authenticate calls in countries where there is no national STIR/SHAKEN deployment"*. In this respect, whilst the additional insights provided are highly appreciated by the MCA, it is worth noting that cross-border STIR/SHAKEN is only expected to launch *"on a trial basis in the near future"*, according to the respondent. Thus, the MCA stands by its principle of considering interventions targeting the authentication of call origination as being out of scope for this Decision Notice, since these initiatives are not practicable at the time of writing.

4. Some solutions, such as over-the-top (OTT) and/or cloud-based communications solutions may also include outbound calling functionalities that permit end-users (typically following prior validations) to set their CLI to any number already assigned to them either by other providers (hereafter 'decoupling') or by the same undertaking providing this ECS solution. Where the said ECS solution is implemented overseas (hereafter 'overseas solution') and used for the provision of number-based interpersonal communications services (NB-ICS), calls with a Maltese CgPN destined to other Maltese numbers are likely to appear as incoming calls over operators' international network interfaces. Thus, such calls would fall within scope of the preventative measures.

   In this respect, if an undertaking is locally authorised to provide NB-ICS comprising outbound calls and such functionality is implemented through an overseas solution, such calls with a Maltese CgPN would also be legitimate and should, in principle, not be blocked by operators of international network interfaces. However, it should be noted that the offering of such outbound calling functionality with a Maltese CgPN by undertakings who are not locally authorised to provide such call origination service is not permitted, regardless of whether or not the service is implemented through an overseas solution, as this constitutes unauthorised provision of NB-ICS as well as misuse and unauthorised use of Maltese numbering resources.

   In relation to the above principle, particularly on the premise of 'decoupling', one respondent stated it had very strong concerns on the arguments discussed in sub-section 2.4.4 of the *Consultation Paper* leading up to *Proposed Decisions 5* to *8*. This respondent's feedback is therefore being addressed in Section 5.4 of this Decision Notice, and the MCA's reaction is provided thereafter. Nevertheless, within an NB-ICS context, it is pertinent to point out that the MCA stands by its stance to consider calls originated via the 'decoupling' route as being legitimate **solely** to the extent that these are originated by validated end-users via solutions (hosted locally or overseas) offered by locally authorised providers.

5. Besides the use-case addressed in *High-Level Principle (4)* above, the MCA is also sensitive to other legitimate scenarios whereby calls from a Maltese CgPN would appear to be incoming over international network interfaces. Thus, **measures to be implemented should avoid, or minimise, the negative impact on the conveyance of such legitimate calls.** These other legitimate scenarios are addressed in more detail in the next section (4.2).

   Multiple respondents acknowledged the possibility that the blocking measures could have an impact on legitimate calls and supported the approach of minimising any corresponding negative impact. Much of this feedback was specifically provided in relation to one or more of the *Proposed Decisions*, and will therefore be addressed later in Chapter 5. However, it should be noted that the feedback provided did not have any material impact on the MCA's stance in respect of this principle, which therefore stands as proposed.

6. Since the **Maltese National Numbering Plan Allocations may evolve over time**, (e.g. updates to designated services for specific numbering ranges, numbering block allocations, etc.), the measures to be implemented need to allow room for any necessary updates.

   There was no feedback in respect of this principle, which shall therefore stand as proposed in the *Consultation Paper*.

In conclusion, the MCA reaffirmed its conviction that the high-level principles that underpinned the *Consultation Paper*'s proposed measures were also sufficiently sound to guide its decision-making process for this Decision Notice.

4.2 Types of Legitimate Calls

This section briefly describes legitimate scenarios whereby calls with a Maltese CgPN would appear to be incoming over the international network interfaces. To assist operators to distinguish between different legitimate scenarios, three types of calls (Type 'A', Type 'B' and Type 'C') are presented hereunder.

- **Type 'A':** Calls placed by subscribers assigned national numbers, towards other national numbers, whilst the calling party is connected to a network outside Malta. In such cases, therefore, the calling party is either:
  i. an outbound roamer (i.e. CgPN is from the '7X' or '9X' numbering range designated for mobile VCS); or
  ii. a device used on an extraterritorial basis or in roaming for "limited voice" service in an M2M/IoT context (i.e. CgPN is from the '4X' numbering range designated for non-interpersonal communications services (non-ICS)).
- **Type 'B':** Calls placed by subscribers assigned national numbers towards inbound roamers in Malta.
- **Type 'C':** Calls placed by subscribers assigned national numbers towards:
  i. outbound roamers (assigned Maltese mobile VCS numbers), where the calls would subsequently be late forwarded to a Maltese number (Scenario 1);
  ii. foreign numbers, where the calls would subsequently be forwarded to a Maltese number (Scenario 2).

Further detailed information on the above types of legitimate calls (and respective call flow) is presented in **Annex 1**.

Besides the above, as mentioned in *High-Level Principle 4* in Section 4.1, calls placed through an overseas solution offered by a locally authorised provider of NB-ICS would also be considered as legitimate calls. In some cases, these overseas solutions provide end-users with the flexibility to associate any of their assigned number(s) as the CLI for outbound calls, regardless of which provider had originally assigned such number(s) (decoupling), albeit this is typically subject to controls or validations as implemented by the respective overseas solutions provider. It is therefore not possible to predetermine specific rules, based simply on the analysis of the CgPN and any associated call parameters, to filter out these legitimate calls from other calls where the Maltese number may have been spoofed. In this respect, a bespoke treatment is merited to safeguard the conveyance of legitimate calls placed through such overseas solutions offered by locally authorised providers of NB-ICS.

5 Preventative Measures and Corresponding Decisions

In this chapter, the MCA establishes the framework of measures to be implemented so as to mitigate CLI spoofing and vishing scams. When factoring in the principle of technology neutrality, the MCA clarifies that the preventative measures to be implemented by virtue of the corresponding *Decisions* shall apply irrespective of the technology used for call conveyance over international network interfaces (e.g. ISUP (part of SS7), SIP, etc.).

5.1 Incoming Calls with CgPN from '1X', '2X' or '8X' Numbering Range

With a view to targeting scams which spoof national numbers in the '1X' (short codes), '2X' (fixed VCS) and '8X' (freephone) numbering ranges, in the *Consultation Paper* the MCA had proposed that operators of international network interfaces should block all incoming calls over such interfaces where the CgPN pertains to the '1X', '2X' or '8X' numbering range, except where the called party number (CdPN) is a Maltese Mobile Station Roaming Number (MSRN), in order to safeguard Type 'B' calls (i.e. calls to inbound roamers in Malta).

In the *Consultation Paper,* the MCA had also noted that calls with CgPN from the mobile VCS numbering ranges ('7X' and '9X') and non-ICS numbering range ('4X') were to be excluded from this measure, given that calls may originate from subscribers or devices assigned these numbers whilst connected to a foreign network (e.g. whilst roaming abroad). This exclusion would therefore safeguard the conveyance of all Type 'A' calls.

The MCA had also proposed that, in keeping with the principle of minimising the impact on legitimate calls to be conveyed, whilst blocking those that are illegitimate, providers may also implement rule-based filters to block calls where the CgPN is from the unallocated sub-ranges from the '4X', '7X' or '9X' numbering range. In this respect, the MCA acknowledged that such increased granularity may have a negative impact on call set-up time for some operators, due to the increased number of checks taking place on a real-time basis. Thus, it was proposed that such additional granularity would not be mandatory. However, where this is implemented, it would invariably improve this measure's effectiveness to mitigate scam calls.

Lastly, the MCA clarified in the *Consultation Paper* that this measure was primarily based on *Candidate Measure 2(b)*, as proposed during the preliminary discussions, which had garnered significant support from all local operators during the said discussions. This variant of *Candidate Measure 2* did not contemplate any rule-based filters to specifically cater for Type 'C' calls, and it was thus envisaged that all such calls originated with a CgPN from the '1X', '2X' or '8X' numbering range would be blocked under this measure. In the same style adopted for the *Consultation Paper*, further information on this limitation is presented in Section 5.2 below.

Responses on this topic and the *Consultation Paper*'s *Proposed Decision 1* were received from four locally authorised ECS providers. The feedback received was mostly supportive of the MCA's proposed measure, with one respondent even stating that it had been advocating for a similar measure for the past two years, in view that it considered such blocking as the most effective solution to minimise the instances of spoofed calls. Another respondent explicitly endorsed both the measure itself and the proposed timeframes.

However, one respondent adopted a more cautious tone, and argued that the MCA should reconsider the measure due to potential harm that blocking measures can cause to legitimate calls. The respondent stated that such blocking could undermine the reliability of the public telephone network, and that the MCA ought to reconsider its approach and opt for other measures, such as CLI suppression or replacement, instead of blocking. In this respect, the MCA reiterates, as expressed in detail in the *Consultation Paper*, that the proposal to suppress or replace the CLI, instead of blocking the call, had already been presented (as *Candidate Measure 1* under **Phase 1**) during the preliminary discussions with local operators of international network interfaces. Operators raised doubts on the effectiveness of such a measure, including in terms of both technical and commercial aspects, as well as concerns that the called party would still be connected with the scammer. Accordingly, the MCA did not present proposed preventative measures based on this *Candidate Measure,* and it stands by this decision.

The same respondent also proposed other approaches in its feedback. In particular, it referred to solutions which block incoming calls over international network interfaces solely where there is a national number in the P-Asserted Identity (PAID) SIP field which *"conveys the 'Network Number', a unique network identifier associated with the call that is communicated from operator to operator, but not displayed to the called party"*. Such solutions do not block incoming calls over international network interfaces where the FROM SIP field, *"which communicates the 'Presentation Number' that should be displayed to the called party"*, is populated with a national number. However, the MCA considers that such an approach would be insufficient to address the misuse and unauthorised use of national numbers and the MCA's position is that the reference to CgPN in this Decision Notice is to apply also to the number to be presented as CLI and not only to the network provided CgPN. The same respondent also referred to the STIR/SHAKEN solution. However, such a solution is considered out of scope of this Decision Notice, as already explained in Section 4.1.

A further point raised in the feedback received, addressed in more detail in Section 5.4.3, related to the proposed implementation timeframes in the *Consultation Paper*, particularly those in *Proposed Decisions 5* and *6* (and, by implication, those in *Proposed Decisions 1* and *4*). This respondent argued that the timeframes are too short for an effective implementation of the blocking measure, and the MCA accordingly took note of this feedback and is extending the timeframes across the corresponding *Decisions*.

Lastly, one respondent submitted that the implementation of this blocking measure would have an impact on some legitimate calls, and proceeded to list three scenarios (labelled 'A', 'B' and 'C' by this respondent) whereby legitimate calls would be impacted. Upon analysis, it was evident to the MCA that the scenarios listed corresponded to types of legitimate calls that the *Consultation Paper* had already identified, and discussed, as being calls prone to be impacted. Indeed, the respondent's scenarios 'A' and 'B' corresponded to 'Type C' calls, whereas the scenario 'C' corresponded to calls originated through overseas solutions. The MCA acknowledges that there may be an impact in such scenarios, and is accordingly mandating, through this Decision Notice, corresponding technical, regulatory and transparency measures to minimise or avoid such impacts, as explained in forthcoming sections of this document.

Thus, taking the above feedback and considerations into account, the MCA maintains its position as proposed in the *Consultation Paper*, albeit with extended timeframes, and is mandating the following:

Decision 1

Operators of international network interfaces are to block all incoming calls over such interfaces with a Maltese CgPN from the '1X', '2X' or '8X' numbering range, except for calls where the CdPN corresponds to a Maltese MSRN served either by the same operator, or any other locally authorised provider that offers inbound roaming services.

Decision 1 will apply with effect from 1 November 2024.

Furthermore, operators may also implement rule-based filters to block calls where the CgPN is from the unallocated sub-ranges from the '4X', '7X' or '9X' numbering range. However, in the same approach adopted for the *Consultation Paper*, the implementation of blocking at such additional granularity is not mandatory.

With a view to oversee the effective implementation of *Proposed Decision 1*, the MCA had also put forward, in the *Consultation Paper*, a proposed framework of obligations related to the sharing of information on numbering (sub-)blocks used by locally authorised providers of inbound roaming services when associating MSRNs to calls received by inbound roamers served on their network in Malta. The proposed framework also addressed aspects related to keeping all operators of international network interfaces informed, in a timely manner, on any relevant updates made by providers to the numbering (sub-)blocks being used.

The feedback received was supportive of the framework of obligations. In this respect, it is pertinent to note that the MCA received feedback on this obligation solely from the three local providers of inbound roaming services. The three respondents agreed in their support for both the framework itself and the associated timeframes, with two of them submitting additional feedback.

One of these respondents asked for additional clarity in terms of the mechanism to be adopted for the providers to submit the information to the MCA, namely, whether a template would be circulated or whether notifications via email would suffice. In this respect, the MCA considers that the information to be supplied could be easily communicated via an email and that there is no need to either develop ad hoc templates or to specify this detail in the Decision Notice itself.

The other respondent highlighted the importance that, in the interest of effectively carrying out the blocking obligations, the list of MSRN (sub-)blocks should be kept to a minimum, and is not further subdivided, with a view to avoid a lengthier verification process during call set-up. This respondent also noted that there could be technical limitations that would, (in the context of implementing the blocking measure), restrict the setting up and storing of an extensive list of MSRN (sub-)blocks. The MCA acknowledges that there may be value in maintaining a short list of MSRN (sub-)blocks, as proposed by this respondent, for expediting verification processes. Accordingly, the MCA encourages providers to consolidate their MSRN (sub-) blocks wherever possible.

Given the absence of any feedback recommending material changes to *Proposed Decision 2,* the proposal is in turn being recast as *Decision 2*, (*next page*):

Decision 2

The following obligations shall apply:

a. All locally authorised providers of inbound roaming services are to provide the MCA with the list of mobile VCS numbering (sub-)blocks being used for the purposes of associating MSRNs to calls towards inbound roamers served on their network (hereafter 'MSRN (sub-)blocks').

   i. Provided that the MSRN (sub-)blocks should be communicated to the MCA by no later than 9 May 2024 for providers already authorised to provide inbound roaming services at the time of publication of this Decision Notice; and

   ii. Provided that, for undertakings who intend to start providing inbound roaming services after the publication of this Decision Notice, the MSRN (sub-)blocks are to be communicated to the MCA at least sixty (60) running days prior to the planned date of commencement of inbound roaming services provision.

b. Without prejudice to point (c) below, providers of inbound roaming services are to associate MSRNs to calls towards inbound roamers solely from the MSRN (sub-)blocks communicated under point (a) above.

c. Where changes to the communicated MSRN (sub-)blocks are necessary and justified, the respective provider who wishes to implement these changes is to allow sufficient time for these changes to be communicated to, and subsequently implemented by, all locally authorised operators of international network interfaces. With a view to facilitate this process, the MCA is to be informed at least thirty (30) running days in advance of this provider's planned date for implementing such changes.

   i. Provided that the MCA may require the respective provider to extend the planned date for implementation under certain justified circumstances, for instance, to take into account industry practices such as network data freezes which are carried out by the operators.

d. Within five (5) working days of receiving complete information in terms of points (a) and/or (c) above, the MCA will circulate this information solely amongst locally authorised operators of international network interfaces.

5.2 Impact on Type 'C' Calls

As introduced in Section 4.2 above, Type 'C' calls comprise either:

a. calls placed by subscribers assigned Maltese numbers towards outbound roamers (also assigned Maltese mobile VCS numbers), where the calls would subsequently be late forwarded[8] to another Maltese number; or
b. calls placed by subscribers assigned Maltese numbers towards foreign numbers, where the calls would subsequently be forwarded (conditionally or unconditionally) towards another Maltese number.

In the case of (a) above, the Forwarded-To Number (FTN) may, for example, be another Maltese number assigned to the called subscriber, or perhaps the number associated with the voicemail service offered by the respective service provider. By way of example, for case (b), one could have an office in a foreign country belonging to a person who travels frequently between Malta and this foreign country for work. Such forwarding setup would assist this person to minimise the number of missed calls during times when the office abroad is unmanned as calls to this office number would be forwarded towards the Maltese number set as the FTN.

In both cases (a) and (b) above, the incoming calls (towards the Maltese FTN) would appear over the international network interfaces whilst bearing a Maltese CgPN (as further explained in **Annex 1**). In this regard, a specific measure that could assist operators to distinguish Type 'C' calls from other incoming calls would be to base the rule-based filters on the provided forwarding-related information[9] and the presence of a Maltese FTN.

Nevertheless, as was noted in the *Consultation Paper*, during the preliminary discussions with operators, it emerged that such forwarding-related information is rarely, if ever, sent along for calls forwarded over international network interfaces. Thus, whilst such real-time rule-based filters could assist to identify *some* Type 'C' calls, it is not possible to identify all Type 'C' calls given the restricted information being received by operators of international network interfaces.

Given this context, the MCA had opined, in the *Consultation Paper*, that it would not be practicable to mandate the implementation of rule-based filters intended to specifically identify Type 'C' calls based on analysing forwarding-related information. Indeed, mandating such a practice would still result in some calls being blocked, due to the absence of the forwarding-related information, whilst a subset of Type 'C' calls would be allowed through. Such a situation would result in uncertainty around whether calls would be successfully conveyed.

It was further argued that end-users would be better off knowing that a *specific* subset of forwarded calls would be blocked outright, rather than being told that the calls may or may not be blocked. Such certainty would indeed allow end-users to make alternative arrangements as applicable. Furthermore, such certainty to end-users would also make it easier for providers to troubleshoot subscribers' issues in this regard.

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[8] Late call forwarding is being used to refer to call forwarding which takes place after the call has reached the visited network of the forwarding subscriber. Examples of late call forwarding include call forwarding on busy (CFB), call forwarding on no reply (CFNRy), and call forwarding on mobile subscriber not reachable (CFNRc) when forwarding takes place in the visited network.

[9] 'Forwarding-related information' refers to the information passed on between operators on any forwarding activity for that call.

In the *Consultation Paper* it was also clarified that, given the implications of the preventative measure emanating from *Proposed Decision 1*, (now retained as *Decision 1*), where a subscriber places a Type 'C' call with a CgPN from the '1X', '2X' or '8X' numbering range, then the call would end up being blocked.[10] Thus, this would indeed correspond to a scenario where a legitimate call would have been blocked as a result of the implemented preventative measure.

The limited forwarding-related information made available to local operators also meant that, regrettably, the MCA could not forecast the extent of the potential impact on Type 'C' calls where the CgPN are from numbering ranges subject to the blocking measure emanating from *Proposed Decision 1* (i.e. '1X', '2X' or '8X'). Indeed, the data received by local operators when conveying such calls cannot reliably shed light on the total quantity of calls with a Maltese FTN, given that not all Type 'C' calls are accompanied by the forwarding-related information which is necessary to identify them as such. Furthermore, following enquiries with locally authorised VCS providers prior to the publication of the *Consultation Paper*, it transpired that information in Call Detail Records (CDRs) for calls made by outbound roamers with Maltese numbers is also of limited value, as the data in the CDRs do not allow providers to distinguish between calls originated by the outbound roamer, or calls that were received by the outbound roamer and subsequently forwarded to a Maltese FTN. Accordingly, in the *Consultation Paper*, the MCA had arrived to the conclusion that the available data on the extent of such calls were more likely to mislead, rather than assist the MCA's decision-making.

With a view to 'cushion' the potential impact of blocking some Type 'C' calls, the MCA proposed, in the *Consultation Paper*, that some transparency measures would need to accompany the introduction of any new blocking measure to be implemented. In this regard, the MCA committed that it would communicate the impact on some Type 'C' calls through its various channels interfacing with the general public.

Moreover, the MCA also noted that it considered local VCS providers to be in a better position to reach out to the general public, through their subscription base, and that it would therefore mandate, in *Proposed Decision 3*, the implementation of specific transparency measures. In brief, these included the need to update the terms and conditions (T&Cs) of service for subscribers assigned '1X', '2X', '7X', '8X' or '9X' numbers, and corresponding notification of such update; obligations to make available, online, dedicated information on the foreseeable impact for a minimum time period; and a commitment to include such information in the T&Cs for any new services and/or tariff plans which providers may launch from time to time. Corresponding timeframes were also proposed.

Three respondents, each being a local VCS provider, provided significant feedback on this theme and the implications of the proposed transparency measures. Accordingly, this feedback is being presented in a sectioned approach, based on the relevant topic addressed. Additionally, it should be noted that all three respondents noted that much of the feedback raised in relation to *Proposed Decision 3* could also be applicable to *Proposed Decision 7*. Thus, in Section 5.5 hereunder, the MCA refers to the following sub-sections to avoid unnecessary repetition.

[10] It is assumed that, under normal circumstances, a subscriber would not set a number corresponding to an MSRN as his/her FTN. In this regard, the implication of *Decision 1* is that a Type 'C' call would be blocked where the CgPN is from the '1X', '2X' or '8X' numbering range. However, there should be no blocking of Type 'C' calls where the CgPN is from the '4X', '7X' or '9X' numbering range.

5.2.1 Rationale of the measure

There was little consensus amongst the three respondents on the rationale behind this measure. One of the respondents signalled its agreement with *Proposed Decision 3,* but it also noted that a *"collaborative effort is indispensable to guarantee the successful implementation of the measures"*, and that this also applies to the efforts to raise awareness of the potential negative impacts of the blocking measures. The MCA agrees with this statement and reiterates its commitment to play a part in the process of raising awareness. The same respondent also noted that it would implement the change through an update to the respective general T&Cs, which they considered would satisfy the obligation as proposed. The MCA would like to clarify that it is up to the provider to decide whether to introduce the required changes in standard T&Cs, in the generic product T&Cs (e.g. for all fixed tariff plans), or in the T&Cs of individual tariff plans.

Another respondent also signalled its agreement with the need to update T&Cs, but advised against including some of the elements listed in *Proposed Decision 3* with a view to adopt text that would be applicable both to existing and new subscribers. Whilst this part of the feedback is addressed in Section 5.2.4, the MCA appreciates this respondent's agreement with the need to update the T&Cs.

Lastly, the third respondent disagreed with the proposal to incorporate such information into the T&Cs and to subsequently notify subscribers regarding the changes as per regulation 92 of S.L. 399.48. This respondent noted that the number of Type 'C' calls is negligible and considered it disproportionate to notify all fixed and mobile subscribers, indicating that this may not yield the desired results that the MCA anticipates. In this respect, the MCA is perplexed by this respondent's assertion that the number of Type 'C' calls is *"negligible"* when the amount of such calls was never quantified in the run up to the publication of the *Consultation Paper*, despite explicit and recorded attempts by the MCA to do so. Indeed, during the drafting of the *Consultation Paper*, the feedback obtained by the MCA confirmed that none of the local operators of international network interfaces were able to accurately quantify the incidence of such calls due to limited forwarding-related information made available to them, and the MCA accordingly noted such feedback in sub-section 2.4.2 of the *Consultation Paper*. Thus, given the absence of information to the contrary, the MCA stands by its consideration that it would not be disproportionate to inform all those subscribers which could potentially be impacted through a notification on updated T&Cs.

On this topic, the same respondent also mentioned that such notifications lead to significant enquiries from subscribers and would only add unjustified burdens on providers. It was further noted that this respondent would be more inclined towards implementing awareness campaigns that can be conducted by the MCA and subsequently shared by the providers on their respective websites, arguing that this approach would ensure consistent information dissemination across all local providers.

In this respect, the MCA notes that it is the right of end-users to be notified of the proposed changes to their contractual conditions by their providers of publicly available ECS other than number-independent interpersonal communications services, and it therefore disagrees with the respondent's view that such notifications are *"unjustified burdens"*.

The MCA acknowledges that providers may indeed experience a spike in enquiries, however, such a spike in subscriber enquiries may be mitigated through pre-emptive action. Accordingly, the MCA is extending the timeframe for complying with this obligation by an extra two (2) weeks, thus, rather than having to notify subscribers by no later than six (6) weeks from the publication of this Decision Notice, the new deadline has been set to 6 June 2024, corresponding to a maximum implementation timeframe of eight (8) weeks for *Decision 3* (as well as *Decision 7*, discussed later). This extension should facilitate staggering the subscriber notifications over a longer period, and thus allow providers to better manage the impact of subscriber enquiries. Nevertheless, with a view to ensure that sufficient time is allowed for such staggered notifications to be sent out, the MCA introduced an obligation, in *Decision 3* (and *Decision 7*) to commence subscriber notifications no later than 23 May 2024, which corresponds to six (6) weeks from the publication date of this Decision Notice. Regardless of when the subscriber notifications are sent out, the MCA reminds that a minimum of thirty (30) days notification period should be given to subscribers to consider the implications of the said notification.

Besides the above, the MCA considers that concerted efforts to raise awareness could prove effective at minimising the number of such enquiries, particularly if sufficient awareness is raised prior to sending out the notifications proper.

5.2.2 Feedback on the application of regulation 92 of S.L. 399.48

The two providers that expressed support for updating the T&Cs also made remarks on the corresponding treatment of this modification in the context of regulation 92 of S.L. 399.48. One respondent enquired whether the changes to the T&Cs considered in *Proposed Decision 3* would be classified as changes directly imposed by a national law, as contemplated in point (1)(c) of the abovementioned regulation 92. If so, this respondent noted, the consequence would be that providers would be exempt from granting end-users the right to terminate their contract without incurring further costs. The other respondent asserted that, in view that the obligation to block these calls is being mandated by the MCA, *Proposed Decision 3* should clearly allow providers to seek an exemption from providing its end users the right to terminate.

In this respect, it should be clarified that, in accordance with the said regulation, providers may indeed request the MCA for an exemption from granting their subscribers the right to terminate the contract without incurring further costs on the grounds mentioned in their feedback, namely, that the proposed changes are directly imposed by national law. Nevertheless, each request would be decided on its own merits, and providers are required to comply with the processes as established in regulation 92 of S.L. 399.48 and Decision 7 of the MCA's Decision Notice titled *'Contracts, Transparency and Termination of Services'* (MCA-D/yc/23-4851). The MCA encourages providers to ensure that subscriber notifications do not include any additional information other than that relating to updates being mandated by this Decision Notice. This approach would minimise the risk that information about these mandated updates is overlooked by subscribers due to the addition of information relating to other contractual modifications.

5.2.3 Timeframe for notification to subscribers on modification of T&Cs

One respondent requested an extension in the notification timeframe from six (6) to twelve (12) weeks following publication of the Decision Notice. In its feedback, this respondent argued that *"according to the established notification processes, end-users should be notified by operators thirty (30) days (4 weeks) prior to the intended implementation"*. It went on to note that since the MCA *"is proposing that such notification should be done within six (6) weeks from publication"* (of the Decision Notice), this requirement would therefore only leave two (2) weeks for operators to carry out the necessary tasks to update T&Cs, which timeframe was deemed to be disproportionate to the work which would need to be implemented.

In this regard the MCA wishes to clarify that the timeframe imposed may have been misinterpreted by this respondent. The six (6) week timeframe included in *Proposed Decision 3* was intended exclusively for the providers to prepare and finalise the changes to the T&Cs and the text to be used in the subscriber notifications (inclusive of the time taken for advance notification to the MCA). Upon the lapse of these six (6) weeks (as had been proposed), the obligation to notify the subscribers would kick in, at which point the subscribers would have at least thirty (30) days, as per norm, to decide on the communicated modifications. These days would only *start* elapsing from the notification date, which, as specified in *Proposed Decision 3*, was intended to be a date not later than six (6) weeks following the publication of the Decision Notice.

To further ensure that the MCA's intentions are clearly understood, this notification is primarily intended to communicate to current subscribers that all providers would have to abide by MCA requirements to block certain calls as from a specified 'future date' onwards. Thus, even when considering the extended timeframe discussed in sub-section 5.2.1 above, since the notifications are to be sent by no later than eight (8) weeks from publication date, this future date in the updated T&Cs (i.e. date when blocking measures would become active) would **not** correspond to the date when the updated T&Cs would come into force (i.e. date from which the subscribers are subject to the updated conditions of service, including local providers' right and obligation to block certain calls from a certain date onwards). This approach maximises the time available to subscribers to check their relative exposure to the blocking measures and to ascertain whether they need to take any action to mitigate any foreseeable impact on their current service use.

Lastly, another respondent noted that the *"effective date"* need not be included within the T&Cs, to facilitate a streamlined approach by including a clause which would be identical to both current and new subscribers. The MCA appreciates the respondent's desire to streamline its approach with regard to the T&Cs updates, however it notes that the inclusion of a specific date in the T&Cs would not necessarily run counter to this process, nor have any bearing on the applicable timeframes.

This primarily rests on two reasons. First, that the wording to be used in the T&Cs can be formulated in a manner that would not lose its meaning regardless of whether one would read it prior to the communicated *"effective date"*, or following its lapse. To minimise ambiguity, some minor editorial changes were introduced to the text in point (a)(ii) of *Proposed Decision 3*. Further aspects related to the wording in the T&Cs are discussed in sub-section 5.2.4 below.

Secondly, the MCA reminds that providers are only obliged to send a notification regarding *modifications* to the T&Cs to those subscribers already contracted and bound by such T&Cs. On the other hand, by the time the updates to the T&Cs are notified, all new subscribers (for tariffs or services subject to these T&Cs) would need to accept the *updated* T&Cs*,* inclusive, therefore, of the clause containing information on the possible impact of the blocking measures. Thus, there is no scope to streamline these two processes as they are distinct by virtue of their nature.

Furthermore, the same respondent noted that it should suffice that subscribers are provided with the statutory thirty (30) day notification period allowing them adequate time to make the necessary changes. In turn, it was argued, providers would notify and update their T&Cs four (4) weeks, rather than ten (10) weeks, before the blocking measures come into effect. In this regard, the MCA's rationale for proposing a deadline of six (6) weeks from the publication of the Decision Notice was already explained above (in this sub-section) in response to the feedback by the other respondent. This rationale stays valid, even when considering the extended timeframe of eight (8) weeks, particularly given that the MCA also extended timeframes for implementing the blocking measures. This approach maximises the time available to subscribers to check their relative exposure to the blocking measures and to ascertain whether they need to take any action to mitigate any foreseeable impact on their current service use.

5.2.4 Wording to be used in the T&Cs

Feedback on the wording of the updates to be made to the T&Cs was received from two respondents. One of these noted that, whilst it agreed that the T&Cs ought to be updated, the effective date as well as the provision of a suitable contact channel need not be included within the T&Cs. In particular, this respondent mentioned that each set of T&Cs already includes a suitable channel wherein end-users may obtain further information in adherence with S.L.399.48 and the MCA's Decision Notice titled *'Contracts, Transparency and Termination of Services'* (MCA-D/yc/23-4851). Thus, the respondent noted that the suitable channel need not be repeated within the additional clause in the T&Cs, ensuring straightforward, concise and clear terms for the end-user.

The MCA already provided its reaction regarding the inclusion of the effective date in the preceding sub-section. On the other hand, the comment on the inclusion of a *"suitable contact channel"* (*MCA emphasis*) is addressed further below, following the summary of the feedback submitted by the other respondent.

In this regard, this other respondent recommended that the MCA proposes specific wording to guide the standardisation of these updates to ensure clarity, consistency, and a synchronised implementation process across the telecommunications landscape. The same respondent also enquired whether a hyperlink to an information page (on the provider's website) would suffice to comply with the obligation to provide a suitable channel which the subscriber may avail of to obtain additional information on this blocking measure. Lastly, this respondent also enquired on whether the wording to be used in the updates to the T&Cs (and correspondingly in the notification to subscribers), could simultaneously address the potential impact of the blocking measure envisaged under *Proposed Decision 1* alongside the impact that could arise from the implications of *Proposed Decisions 5* and *6*.

In respect of the wording to be used in the updates to the T&Cs and the subscriber notification, the MCA has taken account of the feedback provided and will accordingly be reaching out to providers in the days following the publication of this Decision Notice. Such outreach will be intended to provide detailed guidance on implementing the necessary changes to ensure compliance with *Decision 3* hereunder and, given the similar scope, also with *Decision 7*. The MCA anticipates that, generally speaking, VCS providers will be in a position to make use of one notification, and use a single update to the T&Cs, to comply with the obligations emanating from both *Decisions 3* and *7*.

In the interim, the MCA wishes to clarify that it has reconsidered the mandatory inclusion of a reference to a "suitable channel" in the updated T&Cs, as originally proposed. Indeed, it is acknowledged that suitable contact channels are de facto included by providers in their T&Cs. Nevertheless, taking account of the feedback provided, the MCA considers it would be beneficial to also include a reference to a suitable channel for additional information in the text of the subscriber notification, rather than the updated clauses of the T&Cs. In this respect, a hyperlink to an information page on the provider's website may indeed suffice as a suitable channel for subscribers who avail of an internet access service. However, given that not all subscribers can be presumed to avail of such an internet access service, solely providing a hyperlink would not *entirely* satisfy the requirement to provide a suitable channel for all. Accordingly, to ensure that all subscribers are catered for, it is mandatory to include a reference to a free of charge telephony support customer care number of the service provider in the subscriber notification, at least for those notifications to be sent to subscribers who do not avail of an internet access service. Lastly, the MCA wishes to clarify that the information on this hyperlinked page may correspond to the information which providers are mandated to publish on their website in accordance with *Decision 3*, point (e) below. *Decision 3* (and correspondingly *Decision 7*) therefore reflect changes from *Proposed Decision 3* (and *7*) to address the above.

5.2.5 Publishing of information on Providers' Website

Only one respondent, a local VCS provider, submitted feedback on the proposed obligation, emanating from point (d) of *Proposed Decision 3,* to publish information on its website on the impact of the blocking measures on the conveyance of Type 'C' calls. Whilst this respondent remarked that it has no objection to publish such information for Type 'C' (i) calls, it also considered that such information ought to be published not earlier than four (4) weeks before the blocking measure comes into effect. This would allow time for the said provider to assess any technical considerations that need to be reflected within the information provided.

The MCA disagrees with the rationale to hold off the publication of such information on the provider's website until four (4) weeks before the blocking measure comes into effect. The rationale for publishing this information as early as possible is the same as noted in sub-section 5.2.3. In any case, such information should not be 'technical' in nature, rather, it should provide insights, that are easy to understand by subscribers whose calls may be blocked, on the provider's obligation to implement the blocking measures provided for in this MCA Decision Notice. The information provided should therefore explain, in simple terms, which types of call scenarios may end up being blocked. The MCA is not obliging providers to include information that requires any specific technical assessment on the part of the provider, as the intention is not to provide a technical explanation on how the blocking measure was implemented by the said provider. Furthermore, information on the actions that the subscriber could take to mitigate the impact of the blocking measure should not have any dependency on the provider's approach to the technical implementation. Such information may, for instance, include advice to use alternative communications arrangements or channels.

This respondent also pointed out its inability to notify for a scenario corresponding to Type 'C' (ii) calls, (calls from '2X' numbers to foreign numbers forwarded to any Maltese number). It argued that this would not be possible as the subscriber assigned the foreign number would not be subscribed with the respondent. The MCA disagrees, since the information to be made available on the blocking of Type 'C' (ii) calls would still be pertinent for subscribers of local providers, both in their potential capacity as the calling party in such a scenario, as well as in cases where the Maltese subscriber is the assignee of the Forwarded-To Number. Thus, the MCA introduced some minor updates to *Proposed Decision 3* to emphasise that the obligation to publish information on Type 'C' calls to be blocked applies for both sub-types.

5.2.6 Conclusion

The MCA appreciates the detailed feedback submitted on this measure. Whilst some respondents disagreed with certain aspects, it is however noted that all respondents agreed on the value of having transparency measures in place. Drawing on the feedback and reactions presented in the preceding sections, *Decision 3* includes a number of differences from *Proposed Decision 3*, namely in the first paragraph, the inclusion of a new point (d), as well as changes in points (a), (b) and (e). Accordingly, the MCA mandates the following:

Decision 3

Locally authorised VCS providers are to ensure that all their subscribers assigned numbers from the '1X', '2X', '7X', '8X' or '9X' numbering range are made aware of the potential impact of Decision 1 on the conveyance of both variants of Type 'C' calls.

a. This shall be done through relevant updates to the terms and conditions which should, as a minimum, provide:
   i. an explanation to their subscribers that some forwarded calls may be blocked, either by their provider or other locally authorised providers, in accordance with this Decision Notice; and
   ii. the date from when providers are to comply with the MCA's Decision 1 and bring the blocking measure into force.
b. Providers are to notify their subscribers of the updates to the terms and conditions as per (a) above in accordance with the processes as established in regulation 92 of S.L. 399.48 and the MCA's Decision Notice *'Contracts, Transparency and Termination of Services'* (MCA-D/yc/23-4851);
   i. Provided that the subscriber notification is to include information on a suitable channel which the subscriber may avail of to obtain additional information on this blocking measure.
c. Providers are to ensure that the information contained in (a) above is also included, where relevant, in the terms and conditions for any new services and/or tariff plans which providers may launch from time to time.
d. Providers are to ensure that they commence sending out subscriber notifications referred to in (b) above by no later than 23 May 2024, and to conclude the subscriber notification process by no later than 6 June 2024.
e. Providers are to publish on their website, information on:
   i. the potential impact of Decision 1 on the conveyance of both Type 'C' (i) and Type 'C' (ii) calls; and
   ii. any action(s) that may be taken to mitigate such impact.
f. The information in (e) above should be published by no later than 23 May 2024 and retained online for at least six (6) months from 1 November 2024 (i.e. at least until 30 April 2025).

As had been noted in the *Consultation Paper*, in addition to the information in point (e) of *Decision 3*, providers are encouraged to leverage additional channels to facilitate access to information to subscribers who may not be familiar with navigating online content. In this regard, relevant information on the foreseeable impact may also be included in any bills or other official communication sent to subscribers from time to time, and/or in any printed literature made available to subscribers visiting the providers' outlets. Customer care agents are also encouraged to relay this information when interacting with subscribers to assist them setting up such forwarding services, regardless of whether this interaction is on face-to-face basis or via other approaches.

Lastly, for any new entrants who may notify for a general authorisation to provide VCS in Malta, respective timeframes to comply with *Decision 3* would be communicated by the MCA, taking into account the commencement date of operations for such new entrant.

5.3 Incoming Calls with CgPN from '3X', '5X' or '6X' Numbering Range

Where a call over the international network interfaces bears a CgPN pertaining to the '3X', '5X' or '6X' numbering range, the MCA had proposed in the *Consultation Paper* that it would be appropriate to block the call since:

- Numbers in the '5X' numbering range are assigned to premium rate service providers and should not be presented as CLI for outbound calls in accordance with the conditions outlined in the MCA's Decision Notice *'A Framework for Premium Rate Services in the '5' Numbering Range'* (MCA/10/58/D). In this Framework, it is noted in Decision 5.1 that operators are to prevent the use of a premium rate number as CLI, because such numbers may be used inadvertently by the called party when returning a call. It is worth recalling that leaving missed calls with a premium number as CLI is indeed the 'modus operandi' of scammers behind so-called 'Wangiri' scam calls.
- At the time of writing this Decision Notice, there are no allocations to locally authorised providers in the '3X' numbering range, whereas the '6X' numbering range is not yet designated. Consequently, it is justified to block calls with a CgPN from these numbering ranges, as the use of a '3X' or '6X' number would correspond to a case of CLI spoofing or other misuse of national numbers.

Feedback on this proposal was received from four respondents, each of whom is a locally authorised service provider. Three respondents expressed their agreement with the decision as proposed. One of these three specifically noted that it also agreed with the timeframes put forward and positively welcomed the mitigation measure in *Proposed Decision 4* as the numbering ranges under consideration should be blocked either because they are vacant or because certain numbers in the suggested ranges should not be presented as CLI for outbound calls. Another respondent similarly noted that there is no legitimate basis for making outbound calls using numbers where there are no authorised providers or where a number range is vacant, further adding that blocking such calls would protect consumers from harmful, fraudulent calls while not putting legitimate business models at risk.

The other respondent argued that the logic of implementation for *Proposed Decision 4* should mirror the stance adopted for *Proposed Decision 1*, namely, that calls from the CgPN prefixes in scope would ***not*** be blocked if the CdPN is a Maltese MSRN. This respondent further argued that it is not technically possible to adopt a different logic across different numbering ranges.

The MCA disagrees with the latter rationale, given that any call bearing a CgPN from these numbers would correspond to CLI spoofing or other misuse of Maltese numbers, on the grounds of the explanations provided in the *Consultation Paper* and reproduced above. Furthermore, the MCA considers that the recommended logic for the rule-based filters needs to reflect the MCA's *policy* rationale, rather than the achievement of consistency of call treatment across the different numbering ranges. Whilst such consistency is unwarranted from a policy point of view, the MCA notes that in practice the corresponding added risk of scam calls from implementing the same logic for the blocking measures in *Decisions 1* and *4* would be minimal. Namely, since a specific MSRN is only associated with a call towards an inbound roamer during call set-up and on a temporary basis for the duration of that call, it is improbable that an individual could be *specifically* targeted by scammers through calls placed towards numbers in MSRN (sub-)blocks communicated as per *Decision 2*. In this regard, the MCA reserves the right to concede exceptions where there are significant technical challenges that restrict the possibilities available to an operator to just one common *"logic of implementation"* for the blocking measures in *Decisions 1* and *4*. For such cases, after exhausting all options to address this limitation, the MCA's prior written approval may be obtained by the operator concerned to deviate from the obligation as established in *Decision 4*.

Lastly, it should be noted that *Proposed Decision 4* included an erroneous reference to *"*Decision 3*"* in its last sentence. This was intended to read "Decision 4", as the sentence was meant to establish the respective date from when this specific blocking measure would be brought into force. As can be verified in Chapter 4 of the *Consultation Paper*, the MCA's intention was to bring this measure into force in tandem with the measure contemplated under *Proposed Decision 1*, that is, sixteen (16) weeks from the publication of the Decision Notice.

Regrettably, this typographical error led one respondent to remark that the *"MCA proposed that the contents of Proposed Decision 3 apply as well for Proposed Decision 4, but effective from 16 weeks from the publication date"*, and proceeded to recommend that there should *"be one effective date for when Proposed Decision 3 shall become applicable"*, noting that this would *"avoid the need to update the terms and conditions and notify the customers twice"*. The MCA wishes to clarify that this would, of course, not be the case in practice, given that both *Decision 1* and *Decision 4* share the same effective date, whereas the effective date(s) relevant to *Decision 3* are, correspondingly, only those stipulated in *Decision 3* itself. Moreover, no transparency measures are necessary with respect to *Decision 4*.

Thus, besides addressing the abovementioned typo, the only other change from *Proposed Decision 4* is new text to cater for the possibility that, where there are significant technical challenges, the MCA may exempt an operator from applying the blocking measure for calls where the CdPN is a number from MSRN (sub-)blocks communicated as per *Decision 2*. The MCA therefore mandates that:

Decision 4

Operators of international network interfaces are to block all incoming calls over such interfaces with a Maltese CgPN from the '3X', '5X' or '6X' numbering range, regardless of the CdPN*.

Decision 4 will apply with effect from 1 November 2024.

** Unless the said operator has been granted an exception, through a prior written approval by the MCA, to exclude from the blocking measure those calls where the CdPN is a number from MSRN (sub-)blocks communicated as per Decision 2. Such exception would only be considered where there are significant technical challenges to develop the rule-based filters.*

5.4 Intervention related to Overseas Solutions offered by NB-ICS providers

As mentioned in both Sections 4.1 and 4.2 above, calls with a Maltese CgPN towards national numbers placed through overseas solutions offered by NB-ICS providers may also appear to operators as incoming calls over their international network interfaces. In the *Consultation Paper*, the MCA had noted that all such calls would therefore be subject to the rule-based filters envisaged in the proposed preventative measures, and it was also clarified that these calls would be considered as being legitimate solely where the calls are originated by validated end-users via the overseas solutions offered by locally authorised ECS providers.

It was further explained that the above considerations by the MCA were based on the premise that advancements in technology provide end-users with some flexibility in terms of associating their assigned number(s) (as CLI) with call origination services, for instance:

- originating calls via an overseas solution provided by the same service provider offering call termination services for the said number(s); or
- decoupling call origination from call termination through, for example, cloud-based communications or OTT overseas solutions provided by (third-party) locally authorised ECS providers (hereafter 'decoupled call origination services').

Thus, whilst the service provider for call termination services may rightfully only be the serving provider for that number at that point in time, there could, on the other hand, be more than one service provider offering (legitimate) call origination services associated with the same number assigned to a subscriber.

Besides the above, in the *Consultation Paper*, the MCA underlined its awareness that the provision of services through such overseas solutions is, at times, also bundled with integrated systems offerings that facilitate aspects, such as customer relationship management, that extend beyond the connectivity services typically offered by VCS providers. Such integrated systems may be mission-critical to certain business users[11], and the MCA noted its sensitivity towards any impact that could arise on the connectivity aspects of such integrated systems. Indeed, the MCA had noted that, without a specific intervention to sustain the authorised provision of services through such overseas solutions, the implementation of *Proposed Decision 1* would invariably imply that calls originated in this manner would be blocked, unless either:

a. the CgPN is from the '1X', '2X' or '8X' numbering range and the CdPN is a Maltese MSRN, or
b. the CgPN is from the '4X', '7X' or '9X' numbering range.

[11] The term business users should be understood to also include other forms of organisations, not exclusively commercial entities.

In the *Consultation Paper*, the MCA had also acknowledged that any limitation in the *connectivity* aspect of these overseas solutions would reduce their practical usefulness and may have a negative impact on the performance of businesses whose operations depend on such integrated systems. It was also noted that, unless bespoke measures are implemented, the blocking measure would result in an impact regardless of whether the solutions being relied on are being offered by locally authorised ECS providers, or otherwise. In conclusion, it was recognised that the positive effect of diminished scam calls should not come at the cost of having a negative impact, particularly on the business community. Thus, the potential negative impact should be anticipated and addressed a priori.

Accordingly, the MCA further argued that the foreseeable negative impact could be prevented if calls originating from such overseas solutions are not 'mixed' with other incoming calls received over operators' international network interfaces, that is, such calls would be transited towards the called party through a *distinct* path that 'bypasses' the rule-based filters implemented on the international network interfaces.

To achieve such separation for calls originated via these overseas solutions, it would be necessary for the respective NB-ICS provider to pre-establish a distinct, dedicated interface between its overseas solution and at least one locally authorised provider of *Public Electronic Communications Networks* (PECN) and *Voice Communications Services* (VCS) with a point of interconnection in Malta. By way of example, it was noted in the *Consultation Paper* that this dedicated interface could take the form of a dedicated SIP trunk between the two parties and would be the sole path used for all calls originated via the overseas solution where both the CgPN and the CdPN are numbers from the Maltese National Numbering Plan. With this setup in place, it would be ensured that all such calls would be 'brought in' to Malta via the dedicated interface(s), rather than over international network interfaces.

Lastly, the MCA had clarified that bypassing the rule-based filters via the dedicated interface would only be acceptable, and therefore permitted, subject to the following:

a. The undertaking offering the overseas solution would have to be notified with the MCA for a general authorisation, under the applicable category(ies), to provide NB-ICS in Malta. Failure to satisfy this requirement would imply that this undertaking would be unauthorised to provide such a NB-ICS in Malta. Accordingly, it would be justified to implement measures that block calls originated through the overseas solution of this unauthorised undertaking.

b. The undertaking offering the overseas solution should ensure that dedicated interfaces are only utilised for conveying legitimate calls towards Maltese numbers originated by validated end-users. Thus, if or where such undertaking becomes aware of calls originated through its overseas solution where there is misuse, unauthorised or fraudulent use of numbers, it would be held accountable to address the matter with the respective end-users. Where the matter remains unresolved, the MCA would consider this a breach of such undertaking's duty of care obligations and may order the respective undertaking to terminate any relevant relationship with third parties where there is evidence of misuse, unauthorised or fraudulent use of numbers or services.

c. Where an undertaking persistently or repeatedly fails to comply with the MCA's directions, the MCA reserves the right to order all locally authorised providers to cease service provision via any dedicated interfaces established with the said undertaking.

Thus, for undertakings to offer NB-ICS via such overseas solutions to end-users in Malta, particularly the provision of call origination services where the end-user may set a Maltese number as CLI, the MCA had put forward, in the *Consultation Paper,* two interrelated proposals, namely *Proposed Decision 5,* intended to govern aspects related to the general authorisation for such undertakings and the rightful use for numbering resources in such service provision, and *Proposed Decision 6*, which mandated the setting up and the expected use of the aforementioned dedicated interface(s).

The MCA's proposed measures and the underlying rationale generated significant feedback, which was received from four respondents, each of whom being a locally authorised service provider. Accordingly, this feedback is being presented in a sectioned approach, based on the relevant topic addressed. The topics addressed were grouped as follows: (a) feedback on the rationale behind permitting the provision of call origination services via overseas solutions, and more specifically, the MCA's deliberations on decoupling; (b) feedback specific to the setting up of the dedicated interface and related implications; (c) comments on timeframes envisaged; and, lastly, (d) other aspects (covering feedback points addressing very specific details, where each point was raised by only one respondent).

5.4.1 Feedback on permitting call origination services via overseas solutions and the practice of decoupling

Respondents had mixed views regarding the rationale presented in the *Consultation Paper*, wherein the MCA deemed that calls originated through the overseas solutions of locally authorised providers should be considered (and treated) as legitimate calls. In this respect, the MCA reiterates that this rationale only stands for those NB-ICS providers that are locally authorised to provide such services and shall be without prejudice to any other condition that may be attached to the general authorisation and/or to the granting of rights of use for numbering resources. On the other hand, it was also noted in the *Consultation Paper* that the provision of such services by NB-ICS providers that are not locally authorised to do so would correspond to an illegitimate practice that falls foul of the Maltese regulatory framework. The MCA wishes to underline that, at the time of writing this Decision Notice there are no undertakings in the Maltese Register of Authorised Undertakings for providers of ECN and/or ECS that are locally authorised to specifically provide call origination services, via overseas solutions, using Maltese numbers within scope of the envisaged blocking measures.

Notwithstanding, the MCA is informed that there are end-users in Malta making use of such unauthorised overseas solutions, and such use may be integrated with operational or other mission-critical systems used by such end-users. Furthermore, end-users may not be aware that they are subscribed to unauthorised undertakings. Thus, in the *Consultation Paper*, (and as reproduced above), the MCA asserted its sensitivity to the potential impact that the blocking measures could have on such end-users, and possibly on the wider economy, and – in the spirit of safeguarding end-users' interest – the MCA proposed a transitory period for the adoption of a regulated approach to permit the authorised provision of call origination services through such overseas solutions to 'bypass' the envisaged blocking filters at the international network interfaces, provided that there would be strict adherence to the related *Proposed Decisions*.

In respect of the above, one respondent expressed its hesitancy in permitting overseas solutions to bypass rule-based filters. However, recognising the evolving landscape, it acknowledged the crucial importance of implementing stringent measures and thorough scrutiny by the MCA. The respondent also urged the MCA to treat with utmost seriousness any provider seeking authorisation to provide such overseas solution, particularly to ensure that subscriber validation checks are conducted rigorously to safeguard end-users from malicious vishing attacks. This feedback is considered to be in alignment with the MCA's position, given that any unauthorised provision of call origination services through such overseas solutions will become subject to the rule-based filters, whilst overseas solutions providers notifying for a general authorisation would be required to comply with all applicable obligations. It is also worth recalling that, technically, 'bypassing' the rule-based filters would not be possible unless the mandatory dedicated interface is set up and used by the overseas solutions provider in a manner that complies with *Decision 6*.

In its feedback, another respondent confirmed its understanding of the implications of *Proposed Decision 5*, namely that the MCA would allow the association of a Maltese number as CLI for an outbound call placed via an undertaking's overseas solution, provided that the said undertaking is locally authorised as a provider of either *Voice Communications Services*, or as a provider of *Number-Based Interpersonal Non-Voice Communications Services* (a sub-category of *Other Electronic Communications Services*), and also subject to employing a subscriber validation process. In respect of the latter point, this respondent recommended that the MCA defines what this would entail, and urged the establishment of a standard process across these overseas undertakings, arguing that this would streamline the verification of whether a subscriber is legitimately assigned a specific Maltese number by the local service provider. It also recommended that prior to implementing such standard, the MCA would discuss its technical feasibility, or otherwise, with local providers.

In this regard, from the feedback provided, the MCA infers that this respondent is not against the rationale presented by the MCA for having a regulated framework for the authorised provision of call origination services through such overseas solutions. In particular, the emphasis placed by this respondent to ensure that decoupled call origination is only allowed for validated end-users suggests agreement with the MCA's rationale. Notwithstanding, the recommendation to introduce a *standard* validation process (*MCA emphasis*) implies that the MCA would be prescribing the 'standardisation' of operational processes for third parties wishing to notify for authorisation to provide these services. Rather than mandating a *standardised* process for overseas solutions providers notifying to become a locally authorised NB-ICS provider, the MCA will require NB-ICS providers who offer decoupled call origination services to submit information on the subscriber validation process that they would employ to validate their end-users when associating Maltese numbers as CLI for outbound calls. The communicated process will be assessed against the 'minimum parameters' included in sub-section 5.4.5, to determine whether it is to the MCA's satisfaction. Thus, whilst the MCA would welcome the adoption of processes that exceed the minimum parameters, it will refrain from prescribing specific techniques, such as specific Know Your Customer (KYC) solutions, to avoid unjustifiably restricting the pool of potential NB-ICS providers. Indeed, the MCA considers that having such minimum parameters for the subscriber validation process, rather than a *standardised* subscriber validation process, is a more equitable and proportionate solution.

Another respondent reiterated that there are various legitimate scenarios where calls with a Maltese number could be received over international trunks (international network interfaces), and noted that, going by the MCA's *Proposed Decisions*, these calls would be blocked as international traffic carrying local CLI. This respondent argued that restrictions designed to target number spoofing should undertake significant efforts to avoid degrading legitimate traffic, and should focus with precision on fraudulent spoofing, which the respondent described as being the display of a number that is either illegitimate or that the calling party does not have the right to use. It further added that fraudsters typically also make it more difficult to trace the source of the call, something which is not the case for legitimate traffic where the CLI is modified (with no malicious intent). Accordingly, the respondent recommended that new regulations should be designed to protect against these distinct features of fraudulent spoofing, without inadvertently blocking legitimate use cases.

In this regard, the MCA notes that there may indeed be defining features that can help to identify and distinguish fraudulent spoofing from calls with CLIs which were manipulated for legitimate purposes. Solutions that leverage these distinctions are typically found in the realm of call origination authentication, and consequently, the MCA reiterates its stance that such solutions require significant time, effort and investment to develop and implement. Indeed, the same respondent also submitted feedback recommending one such solution, specifically STIR/SHAKEN, and this was accordingly captured and addressed in Section 4.1 above.

The MCA further notes that solutions in the realm of call origination authentication, such as STIR/SHAKEN, have the potential to facilitate traceback by providing a standardised methodology for tracing back the origin of calls, and possibly also to identify the calling party. Nevertheless, this requires tracing back through the call routing and, in the case of cross-border calls which may be transited through a number of transit operators, traceback would necessitate the cooperation of providers and enforcement agents in multiple jurisdictions. In this regard, the potential benefits from standardised and streamlined traceback facilities would still be difficult to achieve given that most spoofed calls with a Maltese number as CLI are transited into national territory from abroad through a number of transit operators.

Besides the reactions provided in Section 4.1, the MCA wishes to highlight that, by design, *Proposed Decision 5* included mandatory subscriber validation processes, which should deter fraudulent spoofers from using the overseas solutions of authorised providers for originating calls with Maltese CgPN. Even in cases where the fraudulent spoofer is undeterred by the subscriber validation process, the use of the mandatory dedicated interfaces to convey all calls where both the CgPN and the CdPN are Maltese numbers should facilitate tracking down the fraudulent spoofer responsible for the calls made towards Maltese numbers, and contribute to the MCA's objective to minimise harm for subscribers assigned Maltese numbers. At the same time, legitimate end-users should be able to undertake and successfully complete any reasonable subscriber validation process, including where this involves technical or other checks to confirm that the said end-user is rightfully assigned the number(s) to be used in a decoupled manner.

Lastly, the MCA notes that one of the respondents provided feedback that was opposed to the stance taken by the MCA. This respondent submitted very strong concerns about the scenario that presented decoupled call origination as a legitimate use case when implemented through the overseas solutions provided by (third-party) locally authorised ECS providers, and opined that granting permission for such activity runs counter to the MCA's efforts to mitigate CLI spoofing. Elaborating on this point, it noted how the proposed approach would enable new routes for illegitimate calls to enter the country through non-VCS providers, making it more challenging to identify the origin of incoming calls.

The MCA disagrees with the stance taken by this respondent, and clarifies that it considers the safeguards to be imposed as being conducive to reduce CLI spoofing, rather than enabling new routes as claimed. First, regardless of whether providers of overseas solutions are notified for a general authorisation in Malta, the MCA is informed that such decoupling is already taking place and end-users are making use of such functionalities. The MCA's intention, as also explained in the preceding paragraphs, is to make it harder for scammers to originate calls where both the CgPN and the CdPN are Maltese numbers. This would be pursued by enforcing the obligation on NB-ICS providers offering call origination services through overseas solutions to notify for a general authorisation for their activities with the MCA, coupled with obligations to implement rigorous subscriber validation processes and to make use of a dedicated interface for call conveyance. The latter obligations would also address the claim that the MCA's proposal would make it more challenging to identify the end-user originating these calls.

The MCA fails to see how these obligations would make identifying the origin of incoming calls *more* challenging, given that the current scenario is characterised by very limited (if any) information on the source of incoming calls being made available to local operators of international network interfaces. Rather, for calls originating from the overseas solution of a compliant, authorised NB-ICS provider, the source of origination and corresponding end-user would be more easily traceable given the mandatory subscriber validation processes and use of the dedicated interface for call conveyance.

Furthermore, arguing to block all calls indiscriminately would likely result in significant impact on the business community availing of these services with no malicious intent, albeit outside of a regulated process. The MCA would be remiss to ignore this reality, by imposing a blocking measure that does not attempt to discriminate between legitimate use cases and those with malicious intent. Moreover, whilst the MCA is empowered under regulation 83(2) to require providers to block access to numbers or services where this is justified by reasons of fraud or misuse, it correspondingly considers that this power does not extend to either requiring or endorsing the blocking of access to numbers or services indiscriminately where this is not justified by reasons of fraud or misuse. To clarify, where such legitimate use cases rely on locally authorised NB-ICS providers, the rightful use of Maltese numbers by validated subscribers would, in itself, neither constitute fraud nor misuse.

The same respondent also remarked that the possibility of CLI decoupling was never mentioned by the MCA before the publication of the *Consultation Paper*, and that there is no reference to this function in the vast number of MCA decisions and other documents on numbering. Thus, it argued, decoupling is not regulated under any MCA framework, and went on to question how the MCA decided to describe such calls as "legitimate" without carefully assessing the implications of this activity. It also considered that the subject of CLI decoupling merits further analysis and requires a distinct consultation rather than being vaguely mentioned in a consultation document on a separate subject. Accordingly, the respondent argued that *Proposed Decision 5* should also include the condition that calls from overseas solutions are only permitted if the Maltese number used as a CLI is assigned or ported to the authorised VCS undertaking that is originating such call.

On these statements, the MCA first wishes to clarify that, as the national competent authority to regulate electronic communications, it is legally bound by virtue of article 4(2)(c) of the Electronic Communications (Regulations) Act (CAP. 399) to *"apply national law and European Union law in a technically neutral fashion, to the extent that this is consistent with the achievement of the objectives set out in sub-article (1)" (MCA emphasis)*. Furthermore, it is worth pointing out that the referred sub-article (1) includes, amongst a number of policy objectives, that the MCA is mandated to pursue the promotion of competition in the provision of electronic communications services. It is within this context that the MCA evaluated the implications of the provision of overseas solutions and the opportunities that such solutions generate for end-users who wish to avail of decoupled call origination.

Furthermore, the MCA clarifies that the *Consultation Paper* did not include any categorical assertions that all such calls (originated through such overseas solutions) are legitimate: rather, the MCA noted that only those calls placed by validated end-users through the overseas solutions of locally authorised providers would be considered as legitimate. The MCA also stated in *Proposed Decision 5* that the exception to bypass the rule-based filters via the dedicated interface shall be without prejudice to any other condition that may be attached to the general authorisation and/or to the granting of rights of use for numbering resources. For the sake of clarity, some examples follow. The granting of rights of use for specific E.164 numbering resources may be subject that the numbering resources in question would be assigned to end-users to be used solely for inbound calls, so any outbound calls using such numbers as CgPN are to be considered illegitimate and should be blocked, regardless of whether the call origination service is offered by the same provider who assigned the number to the end-user or by a different provider. Another example is the obligation to ensure that the dedicated interface is not used to convey calls with CgPN that would have otherwise been blocked on the strength of *Decision 4* (i.e. where CgPN is from the '3X', '5X' or '6X' numbering range).

It is also worth pointing out that, although there are no formal *"decisions and other documents"* that *specifically* mention and regulate decoupling, it should be noted that there is correspondingly no policy or Decision Notice that precludes such practice. Given this context, when the topic of decoupled call origination was brought to the MCA's attention by locally authorised service providers, such decoupling was permitted subject to conditions that are consistent with the *Proposed Decisions* in the *Consultation Paper*.

Specifically, the MCA recalls correspondence, exchanged with the respondent in question in the year 2018, wherein the MCA's assessment was requested by this respondent on the possibility for a locally authorised service provider ('alternative service provider') to offer decoupled call origination where the alternative service provider's end-user would associate as CLI, in outbound calls originated using Voice over IP (VoIP), a number originally assigned to it by another service provider ('original service provider'). In the case in question, the respondent was the so-called original service provider.

In its assessment, the MCA had concluded that, so long as the end-user in question can prove that they are validly entitled to rightfully use the number in question as CLI for outbound calls, such an alternative service provider would not be in breach of any electronic communications legislation. The MCA considers that this rationale remains valid, and it is also aligned with the approach presented in Scenario 6 of ECC Recommendation 23(03), *'Measures to handle incoming international voice calls with suspected spoofed national E.164 numbers'*.[12] The MCA accordingly stands by the position that had been taken on this matter.

On the respondent's claim that the topic of decoupling is distinct from the subject of CLI spoofing and vishing scams, the MCA wishes to underline the fact that the same tools and techniques used maliciously by scammers may also be in use, with no malicious intent, by a variety of end-users legitimately assigned numbers by locally authorised VCS providers. As noted earlier, whilst the MCA is keen to address unauthorised service provision, through obligations to regularise operations, it simultaneously wishes to minimise the impact on end-users' ability to avail of these overseas solutions, particularly where these are integrated within mission-critical systems. Within this context, the MCA had no option but to address this notion in tandem with the preventative measures proposed in the *Consultation Paper*.

Besides noting that the topic of decoupling merited further discussion, this respondent nevertheless opted to provide some *"preliminary observations on the decoupling of call origination from call termination"*. This feedback related to (a) numbering fees paid by the respective block operators allocated numbering resources; (b) the potential loss of retail revenue from outgoing calls; and (c) concerns related to safeguarding regulatory compliance with requirements related to number portability, legal interception and the *National Numbering Conventions*.

On point (a), the respondent argued that the sanctioning of decoupling would *"allow an operator that does not pay any fees for the numbering resources over which it is originating the calls"*. Two clarifications need to be made on the underlined text (*MCA emphasis*). First, the MCA wishes to note that calls are not originated *"over"* a numbering resource per se. Rather, during call setup, a number is associated with the call for the purposes of identifying the calling party and to communicate what number should be displayed as CLI.[13] This process of *associating* a number to a call varies depending on the underlying technology used to offer the call originating service, and this variation indeed enables certain service providers to offer call origination services that permit end-users to decouple their assigned number from the serving provider offering the call termination service on that number. Thus, the MCA disagrees with the phrasing used by this respondent, which seems to suggest some mandatory, technical linkage between setting up the call and the number *"over which"* such call takes place.

[12] CEPT ECC (2023). *ECC Recommendation 23(03) - Measures to handle incoming international voice calls with suspected spoofed national E.164 numbers.* Accessible at https://docdb.cept.org/download/4402

[13] It may be possible that more than one number is associated with a call during set-up time, for instance, different numbers in the PAID and FROM SIP fields.

Secondly, the MCA notes that the law only prescribes one type of fee specifically related to numbering, namely in Part C of the Twelfth Schedule of S.L. 399.48[14], entitled "Usage fees for numbers to be paid on an annual basis". With the exception of fees related to carrier select codes or carrier pre-select codes, the prescribed fees are tied to the allocation of whole numbering blocks, not to the allocation of individual numbers. The implication is that the fee is to be paid by the provider allocated the numbering block (i.e. the so-called, 'block operator'). This notion is also reflected in the practice employed by the MCA whereby there are no specific usage fees deductions or additions tied to the balance of ported-in or ported-out numbers.

Lastly, the MCA considers that the respondent's statement ignores the fact that one of the prerequisites included in *Proposed Decision 5* is that the undertaking wishing to provide call origination services through such overseas solutions is notified with the MCA for a general authorisation to provide such services. Regardless of whether they notify as a provider of *Voice Communications Services* or a provider of *Number-Based Interpersonal Non-Voice Communications Services* under *Other Electronic Communications Services*, depending on the NB-ICS they offer, administrative charges would be payable by such undertaking in accordance with Part A of the Twelfth Schedule of S.L. 399.48.

On point (b), related to the potential loss of retail revenue, the MCA can understand that this is indeed a possibility. In fact, in past correspondence on the matter with the same respondent, the MCA acknowledged that alternative service providers, including those offering overseas solutions, may use this approach to offer a more competitive origination retail rate to the subscriber, in relation to the original service provider's retail rate. At the same time, the MCA notes that this respondent recognised the potential to offer more competitive retail rates when such overseas solutions are leveraged to offer origination services by the same provider offering the termination service, noting that *"some operators could gain some efficiency by adopting a foreign-based solution to originate the calls of their subscribers"*. Within this context, the MCA considers that the technological developments permitting such overseas solutions and decoupling will inevitably lead to business model evolutions. It is foreseeable that this would, in particular, necessitate a rethinking of the composition of commercial offers to business clients, which, according to this respondent, tended to rely on expected revenues from retail telephony to offset lower profit margins for other elements in the offer, such as physical equipment and installation.

Furthermore, the MCA also considers that the original service provider would still be in a more beneficial position with decoupled origination (via an alternative service provider) as opposed to a scenario where the number is ported out, as it would still retain the right to charge a subscription fee at a retail level and a wholesale termination rate for calls received on the said number.

[14] At the time of writing, the fee for a numbering block from the '2X', '7X' or '9X' numbering range stands at €700 annually, where the allocated block would contain 10,000 numbers. There are no usage fees for numbers from the '1X' or '8X' numbering range.

Lastly, point (c) above captures the respondent's concerns related to safeguarding regulatory compliance, particularly in the context of non-VCS providers. Specifically, the respondent noted that decoupling would permit non-VCS providers to circumvent number portability rules to the detriment of authorised VCS providers. In this regard, the MCA reiterates that locally authorised undertakings are required to adhere with various obligations, some of which may vary depending on the applicable general authorisation category. The number portability obligations are focused on VCS providers, and apply regardless of the underlying technology used for service provision. In this regard, overseas solutions providers offering VCS would be required to support number portability. On the other hand, providers who only wish to offer decoupled call origination services would not qualify as VCS providers, and would correspondingly have both fewer rights, and fewer obligations, such as in terms of number portability.

A further concern raised by this respondent was related to compliance with legal interception obligations, specifically on what would happen if there were requests to legally intercept numbers used by the respondent's subscribers and then calls originating from that number bypass the respondent's network through third-party solutions. In this respect, the MCA notes that ***all*** locally authorised undertakings are required to comply with applicable legal interception obligations, in accordance with the prescribed manner at that time. Thus, all overseas solutions providers, including those locally authorised as number-based interpersonal non-VCS providers, would fall within scope.

A further point of feedback, raised by this respondent, was a request for clarification on what would happen *"when a number that is provisioned on the network of a VCS provider, and is also being used by an OTT provider to provide outgoing call services, is terminated but the end-user continues to use the services of the OTT provider"*. The respondent further noted that, *"if that number is eventually assigned to another end-user, then two different end-users could use the same CLI for different services"*. The MCA shares this concern, and is including additional insights on this aspect in the minimum parameters for the subscriber validation process in sub-section 5.4.5. As can be surmised from the minimum parameters, the MCA considers it imperative to enforce subscriber validation processes that extend beyond the initial (on-boarding) verification of an end-user's assertion that they are the rightful holder of a specific number. In fact, NB-ICS providers offering decoupled call origination services using Maltese numbers as CLI will also be mandated to request their subscribers to repeat the validation process on a regular basis, to ensure that the use of a terminated number would be detected and stopped before the lapse of the number portability one-month 'transitory period', and the subsequent quarantine period, (minimum of three (3) months), as imposed in the *National Numbering Conventions* and mirrored in the Number Portability framework.

On the same topic, the respondent further added that the decoupling possibility that is being proposed by the MCA can also *"create a situation where a call with a Maltese E.164 number can be the source of spoofing activities onto other territories without the knowledge of the rightful local undertaking",* and that *"such call can be originated over a cloud-based platform of a locally authorised non-VCS provider and terminated on foreign networks bypassing entirely all Maltese networks, and intercept capabilities"*. The MCA notes that the scenario depicted may take place regardless of whether the solution used for such spoofing activity is offered by a locally authorised non-VCS provider, or otherwise. It is therefore not the MCA, through its decisions, that would *"create"* this situation. Rather, through the regulated approach for decoupled call origination services as mandated by the MCA, it is envisaged that all NB-ICS providers that are locally authorised to offer such services would have in place robust subscriber validation processes ascertaining rightful use of Maltese numbers, prior to the origination of any call associated with such numbers. This would also have the effect of facilitating any traceback activity to determine whether the spoofing activity had indeed been carried out over such provider's solution, or via solutions offered by other, non-authorised providers.

5.4.2 Setting up the dedicated interface and related implications

Some feedback was also received on the obligation, emanating from *Proposed Decision 6*, for authorised providers of overseas solutions to set up a dedicated interface with at least one locally authorised provider of *Voice Communications Services* and *Public Electronic Communications Network* with a point of interconnection (PoI) in Malta.

The MCA noted a common stance from two respondents, namely a recommendation to tie the obligation, on the overseas solutions provider, to set up the dedicated interface with the local provider of VCS that 'owned' the respective number(s) being used in the said overseas solution. In this regard, one respondent recommended that the interface is specifically set up with the local (block) operator that *"owns the Maltese CgPN from the '1X', '2X' and/or '8X' numbering range"*, arguing that this would allow the *"owner"* of that number to validate that the customer is authorised to generate such traffic. This respondent further argued that, given the fixed nature of the numbers in question, "*the traffic ought to pass over the interface of the operator who has a commercial contract established with the said customer"*. Adopting a similar stance, another respondent argued that, if an operator *"legitimately acquires a specific number, which burdens the said operator with several costs and obligations"*, then, the dedicated local interface utilised by the overseas solutions provider *"should be intricately linked to the exact provider associated with the corresponding number, which in theory is the rightful owner of such number"*.

The MCA wishes to clarify that the numbers **are not owned** by the block operator allocated a specific numbering block. Rather, the MCA's allocation confers *rights of use* for those numbers in any allocated numbering blocks, which rights include the right to assign such numbers to an end-user for the provision of ECS. Consequently, the MCA considers that end-users also have rights stemming from numbers assigned to them by their respective VCS provider, including the right to use the number as CLI when originating calls over the call origination solution of a locally authorised NB-ICS provider: regardless of whether this solution is provided by the same VCS provider who assigned the number, or otherwise.

By implication, imposing an obligation on overseas solutions providers to set up their dedicated interface with the respective block operators for the numbers used by their end-users would not be reasonable, as there is no specific link to justify such a constraint. In practice, the implication of such an obligation would be that the overseas solutions providers would need to set up a dedicated interface with each (block) operator allocated Maltese numbering blocks in the '1X', '2X' or '8X' numbering range, which would be a disproportionate obligation that exceeds the nature of the safeguard intended by the MCA in *Proposed Decision 6*. Moreover, it is worth recalling that end-users have the right to port out their numbers to a provider other than the block operator. This implies that block operators would not necessarily be in a position to validate the end-user for all cases, as implied by one respondent.

It is also pertinent to clarify that, in *Proposed Decision 6*, the MCA did not propose imposing any obligation on the locally authorised provider of PECN and VCS to carry out subscriber validations on behalf of, or in tandem with, the overseas solutions provider. Indeed, in its proposal, the MCA placed the onus of subscriber validation processes squarely and exclusively on the overseas solutions provider. In this manner, where authorised to provide such call origination services through overseas solutions, the respective NB-ICS provider would be solely responsible to ascertain that the end-user in question is rightfully using the number(s) in question, and would accordingly be held accountable to do so. Indeed, as further explained in Section 6.2, the MCA reserves the right to order the cessation of traffic conveyance over any dedicated interface that is found to have been used to convey illegitimate traffic, such as calls originated from end-users where there is misuse or unauthorised use of Maltese numbers.

On a related front, one of the abovementioned respondents also commented that the MCA's choice of wording created some ambiguity, as the obligation referred to the need to establish a dedicated interface with at least one locally authorised provider. This respondent observed that the MCA was unclear on the number of providers who can provide such link, and that consequently the MCA should clarify that only the locally authorised provider which legitimately *"acquired an assigned number"* can provide the established dedicated interface. On this point, the MCA notes that the argument related to the legitimate 'acquisition' of a number has already been addressed above, whereby the MCA noted that there is no 'ownership' per se whenever a numbering block is allocated to a locally authorised provider. Moreover, it should be noted that the wording chosen was intended to show that overseas solutions providers may opt to establish multiple dedicated interfaces, not just one, if this is desirable for commercial reasons or to ensure resiliency. Thus, the MCA emphasised that at least one dedicated interface would be mandatory.

Thus, once at least one dedicated interface is established, the locally authorised overseas solutions provider would be required to convey all traffic, where both the CgPN and CdPN are a Maltese number, through this dedicated interface. This would ensure that such calls originated by its end-users would 'bypass' the blocking measure as they would be conveyed locally to their destination via the *national* network interfaces (national interconnections), rather than being received as incoming calls over operator's international network interfaces (and thus become subject to the rule-based filters). Furthermore, the establishment of a dedicated interface by an unauthorised overseas solutions provider is being prohibited, since *Proposed Decision 6* requires a locally authorised PECN and VCS provider with a point of interconnection in Malta to confirm with the MCA that an overseas solutions provider holds a valid local general authorisation prior to establishing such a dedicated interface.

Incidentally, one respondent commented that requiring *"non-Maltese providers to enter into compulsory agreements with local providers conflicts with the freedom to provide services across the common European market"*. In this regard, the MCA wishes to clarify that the requirement is primarily linked to the rightful use of Maltese numbers for NB-ICS and dependent on having access, through a locally authorised provider, to a point of interconnection in Malta for the conveyance of calls where both the CgPN and the CdPN are Maltese numbers. As noted in the preceding paragraph, such an approach would ensure that these calls would be routed directly by locally authorised overseas solutions providers towards a network in Malta over the dedicated interface, and any subsequent conveyance of such calls towards other networks in Malta would take place over *national* network interfaces (national interconnections), not international network interfaces.

Adopting a different approach would imply that calls with Maltese CgPN, destined towards Maltese CdPN, would be received over international network interfaces and thus be subject to the blocking measure. The MCA considers that it is justified to require that calls originating with Maltese numbers subject to the blocking measure (i.e. with a '1X', '2X' or '8X' prefix, which are generally associated with services in the fixed domain) would be routed directly towards a network in Malta to safeguard the public's trust in national numbers and to protect end-users from the harmful effect of CLI spoofing and vishing scams.

A further point of feedback raised by multiple respondents related to local providers' visibility, or extent of control, that they can exert on end-users availing of overseas solutions. One respondent highlighted the fact that *"local operators cannot control a subscriber having a Maltese CgPN from placing a call outside an established dedicated interface, through a third party operator"*, going on to note that in such cases, it would be bound to block such calls in accordance with the *Proposed Decisions*. A further respondent emphasised that it was not in a position to know whether fixed Maltese numbers assigned to its subscribers, have been, are or will be utilised with overseas SIP trunks. A third respondent noted that through such overseas solutions, calls with a Maltese E.164 number could be the source of spoofing activities onto other territories without the knowledge of the rightful local undertaking.

In this respect, the MCA wishes to clarify that the focus of the measures in *Proposed Decisions 5* and *6* is to regulate the provision of call origination services whereby both the CgPN and the CdPN are Maltese numbers, and that, predominantly, the onus to ensure compliance will rest on those overseas solutions providers that wish to offer such call origination services. With regard to the end-users of such overseas solutions, the MCA expects that the corresponding responsibility to oversee and control end-users' activity, particularly vis-a-vis call origination with Maltese numbers, would rest with the overseas solutions provider, not with the providers on the other end of the required dedicated interface(s). Accordingly, as locally authorised NB-ICS providers, such overseas solutions providers would be accountable to the MCA for their end-users' activities, particularly when outgoing calls are originated via their solutions bearing Maltese numbers.

Therefore, where end-users originate calls via their locally authorised overseas solutions provider where both the CgPN and CdPN are Maltese numbers, traceability of the source of the call would be assured if such calls are conveyed towards their destination exclusively through the dedicated interface(s) in place, in line with requirements. In cases where, for some reason, the call is not conveyed through a dedicated interface, it would likely appear as an incoming call over an operator's international network interface, and should – rightfully – be blocked in accordance with the blocking measures. Thus, for calls where both the CgPN and CdPN are Maltese numbers, compliance is the only available avenue for calls to be successfully conveyed.

On the other hand, where only the CgPN is a Maltese number, and the CdPN is a foreign number, end-users with malicious intent could indeed originate calls with Maltese numbers towards foreign numbers, unbeknown to Maltese networks. However, this situation is no different from what is, in all likelihood, already taking place at present. Resolving such matters will continue to rest on the information made available by foreign parties to local networks, the MCA and/or local law enforcement. The only difference, once the MCA's Decision Notice comes into effect, is that there could be cases whereby calls with Maltese numbers terminated in foreign networks would have been originated by end-users availing of the overseas solutions of locally notified NB-ICS providers. In such cases, the MCA anticipates that it would be in a better position to request information on such calls and to address any non-compliance.

Lastly, one respondent expressed agreement with requirements, envisaged in *Proposed Decision 6*, for all locally authorised ECS providers to refrain from implementing any ad hoc (interim) interventions vis-à-vis calls from overseas solutions; and to confirm the appropriate general authorisation of providers using overseas solutions prior to establishing dedicated interfaces. The MCA appreciates the explicit endorsement of these requirements by this respondent, and positively notes that these requirements attracted no disagreements from the other respondents.

5.4.3 Feedback on envisaged timeframes

One respondent had reservations on the envisaged timeframes for implementation, particularly with regard to the setting up of dedicated interfaces. The respondent argued that, if the MCA decides to move forward with call blocking requirements, it could reduce the likelihood of legitimate calls being blocked by affording more time (e.g. six (6) months) for implementation. By way of example, the respondent noted that *Proposed Decision 6* gives overseas solutions providers, (the respondent used the term *"non-facilities-based providers"*), ten (10) weeks from the publication date to establish the dedicated interface(s) in the Maltese territory. During this period, the overseas solutions provider would need to negotiate agreements, establish local connections, and then test those connections to ensure that legitimate calls would not end up blocked. Thus, whilst the respondent noted that the MCA had acknowledged that it would take time for providers to *"regularise their situation"*, it nevertheless considered that the envisaged timeframe in *Proposed Decision 6* was *"far too short"* for this type of solution.

In this regard, the MCA took this feedback into account and is accordingly extending the allowed timeframe for overseas solutions providers to notify for a general authorisation, set up the dedicated interface and comply with all applicable obligations until 1 October 2024. This adjustment also takes into consideration the feedback received in relation to the technical limitations precluding the implementation of the pre-recorded voice announcement considered in the *Consultation Paper* in *Proposed Decision 8*, which is addressed in further detail in sub-section 5.5.2.

5.4.4 Other aspects

One respondent submitted comments related to the regulation of sub-allocating numbering resources, which comments were raised in the context of this respondent's reservations on the MCA's stance on permitting decoupled call origination services. In its submission, the respondent opined that providers allocated numbering blocks remain the *"sole entities accountable for communication services utilising E.164 numbers (…) making them accountable for all uses of their numbers"*, and that *"end users do not have the right to utilise the numbers except in conjunction with their subscribed services and the Number Portability scope"*. The respondent then argued that there *"also exists the option for voluntary commercial agreements between operators for sub-allocation of E.164 numbers, subject to MCA's approval"*, and, within this context, the respondent questioned *"the existing requirements for VCS providers to adhere to rigorous MCA regulations, and seek permission when sub-allocating numbers to other providers, when at the same time the MCA (would) be giving third parties the liberty to utilise numbers assigned to other VCS providers"*.

The MCA disagrees with some of the assertions made. First, the MCA reiterates that allocatees of numbering blocks are granted rights of use, not 'ownership', for the numbering blocks allocated, and consequently the MCA considers that such allocatees are not empowered to restrict end-users from making rightful use of numbers assigned to them. The MCA already addressed this topic of 'ownership', and end-user rights vis-à-vis numbers assigned to them, in sub-sections 5.4.1 and 5.4.2 above.

Secondly, the premise behind sub-allocation is that the block operator would be ceding assignment rights for one or more specific sub-blocks within its allocation in favour of a third party (the so-called 'sub-allocatee'). When such sub-allocation is permitted by the MCA, the block operator would no longer have the right to assign numbers to subscribers from the sub-allocated sub-block(s), whilst the sub-allocatee would gain such right, strictly for numbers within such sub-block(s). Thus, in contrast to decoupled call origination, an end-user subscribed for a specific service with a sub-allocatee (provider) is not required to also be subscribed with another locally authorised provider to avail of call termination services on the respective number(s), as the sub-allocatee would have arrangements in place with the block operator to handle call termination services on behalf of the sub-allocatee.

Moreover, since the purpose behind acquiring numbers through sub-allocation is to provide NB-ICS in conjunction with numbers assigned by the sub-allocatee to its end-users from the sub-allocated numbering block(s), the MCA's guiding principle is to regulate this process to ensure that the sub-allocatee is able to comply with all relevant norms including on general authorisation and numbering aspects.

In the interest of comparison, it should be clarified that the regulatory stance proposed by the MCA vis-à-vis the authorised provision of decoupled call origination services rests on the same principle adopted to regulate requests for sub-allocations and notification obligations for sub-allocatees, as relevant. In fact, NB-ICS providers intending to offer decoupled call origination services would need to notify for a general authorisation and the applicable category would be determined depending on the specific use case envisaged. Similarly, such locally authorised providers would need to conform with all applicable numbering norms. However, a major difference between a sub-allocatee and a provider of decoupled call origination is that the latter cannot assign Maltese numbers to its end-users.

Lastly, the MCA reminds that, in the *Consultation Paper*, it was established that the association of a Maltese number as CLI with an outbound call placed via an undertaking's overseas solution is not permitted unless the said undertaking is duly notified and employs subscriber validation processes to ensure that it is only conveying calls by validated end-users. Furthermore, the MCA clarified in its *Proposed Decision 5* that the exception to bypass the rule-based filters via the dedicated interface shall be without prejudice to any other condition that may be attached to the general authorisation and/or to the granting of rights of use for numbering resources. Given the foregoing, the MCA disagrees with the respondent's claim that the MCA is giving some providers the 'liberty' to use numbers from other providers' allocations, without any prior requirements or rigorous regulation.

A distinct point of feedback raised by another respondent was a recommendation to consider leveraging the opportunity of unused numbering ranges, by making such unused ranges available exclusively for overseas solutions providers. The respondent argued that using numbers in this way would give the MCA an ability to monitor these providers and the effectiveness of the measures they have in place to respond to scammers. Furthermore, it noted that making these ranges available with conditions would be consistent with the scenario, contemplated in *Proposed Decision 5*, whereby overseas solutions providers would be required to notify for authorisation in Malta, and ensuring that the provider is using a subscriber validation process to ensure that such solutions are only utilised for conveying calls by validated end-users.

The MCA appreciates the recommendation put forward, however it considers that the potential gains of such an approach would be outweighed by the costs. First, even if numbers from unused ranges were to be allocated for such purposes, there is no guarantee that scammers would not shift their approach towards spoofing such numbers as well. Thus, there would be no specific gains in the MCA's ability to monitor providers and the effectiveness of the measures implemented, as the new numbers made available would merely broaden the scope of numbers that can be spoofed with some margin of success for the scammer. Indeed, introducing this approach would also require significant effort to raise awareness on the associated services using such numbers, and corresponding tariff expectations. Furthermore, the MCA is informed that typically, end-users availing of overseas solutions, (especially businesses), would prefer to associate in such solutions those numbers that are known by the general public as corresponding to fixed services, that is, predominantly numbers from the '2X' range. Particularly for businesses, calling their customers from numbers with a different prefix, e.g. '3X', instead of the number(s) used by the same business for incoming calls, could lower response rates for such businesses and is unlikely to be desirable. Lastly, the MCA recognises that adopting such an approach would require increased granularity in the filtering of incoming calls over operators' international network interfaces, in order to specifically account for (additional) legitimate scenarios where the CgPN is from the numbering ranges dedicated for such overseas solutions. Given the foregoing, the MCA considers that, at this point in time, the adoption of this option would not address the issues identified vis-à-vis overseas solutions providers and maintains its position as in *Proposed Decisions 5* and *6*.

5.4.5 Conclusion

In conclusion, the MCA appreciates the feedback submitted on *Proposed Decisions 5* and *6*, and recognises that the topic may have raised concerns amongst some respondents, particularly locally authorised providers. It is also recognised that three respondents considered that the topic of permitting decoupled call origination services within the provision of overseas solutions merited further, formal discussions. In this respect, the MCA held meetings with these respondents in the run-up to the publication of this Decision Notice, during which meetings the MCA's position, as explained in the preceding sections, was explained and discussed in detail.

After taking into account all the feedback received, the MCA is clarifying the stance taken in *Proposed Decision 5*, as noted in further detail in sub-section 5.4.1. Namely, *Decision 5* now explicitly mandates that any undertaking notifying for a general authorisation as a NB-ICS provider to offer call origination services (with Maltese numbers as CLI) would be required to implement robust subscriber validation processes that meet or exceed the MCA's minimum parameters outlined below.

The MCA therefore decides as follows:

Decision 5

For NB-ICS provision, the association of a Maltese number as CLI with an outbound call placed via an undertaking's overseas solution is not permitted, except where the undertaking fulfils both criteria hereunder, namely:

a. the undertaking is notified as a locally authorised provider of NB-ICS with the MCA, that is, it would be authorised, depending on the services offered, as either:

   i. a provider of *Voice Communications Services*, or

   ii. a provider of *Other Electronic Communications Services* for the sub-category *Number-Based Interpersonal Non-Voice Communications Services*; and

b. the undertaking offering call origination services through overseas solutions must employ subscriber validation processes and is able to ensure that such solutions are only utilised for conveying calls by validated end-users who have the right of use for the Maltese number to be associated as CLI.

The abovementioned exception shall be without prejudice to any other condition that may be attached to the general authorisation and/or to the granting of rights of use for numbering resources;

- Provided that, by no later than 1 October 2024, locally authorised NB-ICS providers offering decoupled call origination services through overseas solutions meet or exceed the MCA's minimum parameters for subscriber validation processes.

Taking into account the detailed feedback provided by respondents (*see* sub-section 5.4.1) on the need for 'standard' parameters and rigorous subscriber validation processes, the minimum parameters that locally authorised NB-ICS providers offering decoupled call origination services need to meet or exceed, to satisfy point (b) in *Decision 5*, are as follows:

- **Parameter 1:** Validations related to obtaining identification information from the end-user subscribing for the call origination service, i.e. confirmation that reliable KYC practices are being employed, such as verifications against official identification documents;
- **Parameter 2:** Technical verifications to ascertain the end-user's right of use for any number(s) associated with the decoupled call origination service, such as through the use of one-time passwords communicated via a call towards the number(s) in question;
- **Parameter 3:** Verifications of an existing association between the end-user's identity and the number(s) to be used in a decoupled manner, such as checks against official signed contracts, bills or usage reports issued by the locally authorised VCS provider who is currently the terminating operator for the number(s) in question, and with whom the end-user would have an active subscription; and
- **Parameter 4:** The MCA wishes to safeguard the rights of the respective block operator(s) for the number(s) used in a decoupled manner to 'recycle numbers' by re-assigning terminated numbers to new end-users in accordance with the regulated process for such re-assignment (*see* sub-section 5.4.1). Thus, NB-ICS providers offering decoupled call origination services should also be able to ensure that their end-users are not making use of terminated numbers by implementing periodic re-validations. Such re-validations may take the form of repeating certain checks conducted to satisfy the above parameters periodically, such as implementing the Parameter 2 check on a quarterly basis.

In the interest of safeguarding a level playing field, as from 1 October 2024, the above minimum parameters shall be applicable to both providers offering decoupled call origination services via overseas solutions as well as for providers offering such decoupled call origination services via solutions not hosted overseas. Moreover, the MCA also reserves the right to further specify the validation obligations related to minimising the risk of end-users using terminated numbers in a decoupled manner.

Lastly, with regard to the proposal to mandate the implementation of dedicated interfaces, the MCA is meeting the recommendation to extend the timeframe originally envisaged in *Proposed Decision 6*, not least to reflect the feedback submitted, but also to compensate for the impact of the feedback received in relation to *Proposed Decision 8*, which is reviewed in sub-section 5.5.2.

The MCA therefore decides the following (*next page*):

Decision 6

Further to satisfying the obligations emanating from Decision 5, where an undertaking's overseas solution permits outbound calling with a Maltese CgPN from the '1X', '2X' and/or '8X' numbering range, that undertaking is required to establish a dedicated interface with at least one locally authorised provider of *Public Electronic Communications Networks* and *Voice Communications Services* with a point of interconnection in Malta;

- Provided that such dedicated interface may also be set up on an 'internal basis' if the overseas solution is provided by an undertaking that is a locally authorised provider of *Public Electronic Communications Networks* and *Voice Communications Services* with a point of interconnection in Malta.

By no later than 1 October 2024, all calls originated via an undertaking's overseas solution, where both the CgPN and the CdPN correspond to a number in the Maltese National Numbering Plan, shall reach the Maltese territory solely via any established dedicated interface(s).

With a view to allow time for any undertakings offering such overseas solutions to regularise their situation and comply with Decision 5 and this Decision 6, the MCA requests all locally authorised ECS providers to refrain from implementing any ad hoc (interim) interventions which seek to identify and block calls originated in this manner prior to the coming into force of Decision 1.

Furthermore, prior to establishing any dedicated interface with an undertaking offering outbound calls with a Maltese CgPN through overseas solutions, locally authorised providers of *Public Electronic Communications Networks* and *Voice Communications Services* with a point of interconnection in Malta are to confirm with the MCA that the said undertaking holds a valid local general authorisation to provide NB-ICS.

5.5 Impact on Calls from Unauthorised Overseas Solutions

As mentioned in the preamble of Section 5.4, the provision of NB-ICS through overseas solutions is at times included in integrated systems offerings that are critical to certain business operations. In this respect, the MCA notes that, when the blocking measures come into force on 1 November 2024, all calls originated via the overseas solutions of undertakings that do not satisfy *Decisions 5* and *6* would become subject to blocking in accordance with *Decisions 1* and *4*.

With a view to mitigate the foreseeable impact on end-users of such unauthorised overseas solutions, and any potential economic impact, in the *Consultation Paper*, the MCA had noted that interventions to improve transparency would be warranted. Besides forewarning end-users of the potential impact, it was argued by the MCA that such transparency measures would also trigger end-users to either find alternative, authorised arrangements, or to solicit their current providers to regularise their position in line with *Proposed Decisions 5* and *6*.

This rationale remains relevant, since the MCA is not introducing any substantial changes from the relevant *Proposed Decisions* in the corresponding *Decisions* of this Decision Notice. What follows is an evaluation of the two transparency measures considered in the *Consultation Paper* to account for the foreseeable impact on calls originated through call origination services provided by unauthorised overseas solutions providers.

5.5.1 Relevant updates to the T&Cs

Since the principal impact of the preventative measures, particularly those emanating from *Decisions 1, 5* and *6,* is expected to be felt by business end-users assigned Maltese numbers by locally authorised VCS providers, the MCA considers that the latter's support would be crucial to raise awareness on the foreseeable impacts of the blocking measures to be implemented. Thus, in the *Consultation Paper*, the MCA's *Proposed Decision 7* was presented as a first transparency measure to mitigate the potential impact, and it comprised mandatory updates to the T&Cs of locally authorised VCS providers who assigned numbers to subscribers from the '1X', '2X' and '8X' numbering ranges. In the *Consultation Paper*, the MCA argued that locally authorised VCS providers may also be net beneficiaries from this measure, since they may:

- be in a position to offer authorised solutions as an alternative to any overseas solutions offered by unauthorised third parties who will be affected; and
- establish commercial partnerships with undertakings authorised to provide ECS via such overseas solutions who are in the process of setting up the mandatory dedicated interface to regularise their offering.

In conclusion, in the *Consultation Paper*, the MCA had considered that the obligations on locally authorised VCS providers, as foreseen in *Proposed Decision 7*, would not only be in the interest of the same locally authorised VCS providers, but could also be justified on grounds of national interest and to safeguard the end-users subscribed to services offered via such overseas solutions.

On the above deliberations, the MCA notes that the feedback it received was exclusively from VCS providers who would be required to implement the proposed changes in the T&Cs. Moreover, as noted earlier, the respondents tended to group the feedback on *Proposed Decision 7* with the feedback submitted on *Proposed Decision 3*. Accordingly, most of the arguments relating to *Proposed Decision 7* have already been addressed in Section 5.2, albeit in the context of *Proposed Decision 3*.

Indeed, one respondent specifically noted that, given the significant overlap in the content of *Proposed Decision 3* and *Proposed Decision 7*, it clarified that any feedback provided for one of these decisions is applicable to the other, to ensure that recommendations and clarifications are uniformly addressed.

A second respondent noted that its feedback on *Proposed Decision 7* was *"in line with the feedback provided under Proposed Decision 3"*, and its submission only included arguments that had already been raised under *Proposed Decision 3*.

The third respondent explicitly noted that the comments made under *Proposed Decision 3* also apply to *Proposed Decision 7*, albeit this respondent noted that this statement was made without prejudice to its oppositional stance taken in terms of *Proposed Decisions 5* and *6*. It further added that the obligation to inform subscribers about the potential impact of *Proposed Decisions 5* and *6* would imply that VCS providers would be indirectly promoting the services of OTT providers in their own T&Cs with all their subscribers, which was deemed highly unreasonable and unacceptable. The MCA disagrees with this rationale and considers that the updates to be made in T&Cs will not be equivalent to 'promoting' the services of other providers, rather, these updates would only serve to inform subscribers of the inherent risks of ending up with blocked calls where those subscribers avail of services provided by unauthorised undertakings. The MCA thus considers that the changes to be made to the T&Cs are both justified and warranted.

Furthermore, the requirement on overseas solutions providers to meet the conditions of *Decisions 5* and *6* above may also be leveraged as a business opportunity by locally authorised providers of PECN and VCS with a point of interconnection in Malta. Increased awareness of this requirement, such as through the updates to subscribers' T&Cs, may in turn generate new revenue streams for those providers with a point of interconnection in Malta.

In conclusion, the MCA reiterates its appreciation for the detailed feedback submitted by various respondents on this measure. Whilst the MCA recognises that some respondents disagreed with aspects of the proposed method, it is nevertheless noted that all respondents agreed on the value of having transparency measures in place. The feedback and corresponding reactions reported in sub-sections 5.2.1 to 5.2.5 above is also generally applicable to the content of *Proposed Decision 7*, with the exception of feedback which specifically related to Type 'C' calls.

Accordingly, *Decision 7* below includes similar changes to those implemented for *Decision 3*, namely in the first paragraph, the inclusion of a new point (d), as well as changes in points (a) and (b). In this regard, the MCA mandates the following (*next page*):

Decision 7

Locally authorised VCS providers are to ensure that all their subscribers assigned numbers from the '1X', '2X' or '8X' numbering range are made aware of the potential impact of Decisions 1, 5 and 6 on the conveyance of calls originated via overseas solutions of unauthorised undertakings.

a. This shall be done through relevant updates to the terms and conditions which should, as a minimum, provide:
   i. an explanation to their subscribers that calls originated via the overseas solutions of unauthorised undertakings may be blocked, either by their provider or other locally authorised providers, in accordance with this Decision Notice; and
   ii. the date from when providers are to comply with the MCA's Decision 1 and bring the blocking measure into force.
b. Providers are to notify their subscribers of the updates to the terms and conditions as per (a) above in accordance with the processes as established in regulation 92 of S.L. 399.48 and the MCA's Decision Notice *'Contracts, Transparency and Termination of Services'* (MCA-D/yc/23-4851);
   i. Provided that the subscriber notification is to include information on a suitable channel which the subscriber may avail of to obtain additional information on this blocking measure.
c. Providers are to ensure that the information contained in (a) above is also included, where relevant, in the terms and conditions for any new services and/or tariff plans which the providers may launch from time to time.
d. Providers are to ensure that they commence sending out subscriber notifications referred to in (b) above by no later than 23 May 2024, and to conclude the subscriber notification process by no later than 6 June 2024.
e. Providers are to publish on their website, information on:
   i. the potential impact of Decisions 1, 5 and 6 on the conveyance of calls originated via overseas solutions of unauthorised undertakings; and
   ii. any action(s) that may be taken to mitigate such impact.
f. The information in (e) above should be published by no later than 23 May 2024 and retained for at least six (6) months from 1 November 2024 (i.e. at least until 30 April 2025).

Given that the potential impact of *Decisions 1, 5* and *6* at times also extends to critical business operations of end-users availing of these overseas solutions, providers are encouraged to leverage additional channels to facilitate access to information on this potential impact over and above those prescribed in point (e) of *Decision 7*.

In this regard, relevant information on the foreseeable impact may also be included in any bills or other official communication sent to subscribers from time to time, and/or in any printed literature made available to subscribers visiting the providers' outlets. Providers may also consider reaching out directly to subscribers on business tariffs. Depending on available business intelligence, such outreach could be targeted to a specific sub-set of subscribers that are more likely to be using such overseas solutions.

Further to the above, for any new entrants who may notify for a general authorisation to provide VCS in Malta, respective timeframes to comply with *Decision 7* would be communicated by the MCA, taking into account the commencement date of operations for such new entrant.

5.5.2 Pre-recorded voice announcement

The second measure put forward in the *Consultation Paper* to raise awareness on the potential impact of the blocking measures comprised the implementation of a pre-recorded voice announcement. In its deliberations, the MCA had noted that for an interim period prior to the coming into force of *Proposed Decision 1*, it would be beneficial for end-users of such overseas solutions to be presented with a pre-recorded voice announcement whenever they place outbound calls which would have been blocked had the blocking measure been active. It was considered that such announcements would need to be played to the caller by the operator of the international network interface prior to establishing the call with the called party.

The MCA regrets to note that the feedback received in relation to this *Proposed Decision 8* was coherently in opposition across the four respondents that addressed this proposal. One respondent noted that it had conducted a comprehensive evaluation of the measure and concluded that it was not, presently, in a position to implement such a technical solution. It further added that, regrettably, the limitation stems from the current infrastructural setup, which primarily accommodates traditional traffic and does not allow the integration of the proposed pre-recorded announcement. This respondent went on to suggest that the implementation of *Proposed Decision 8* is not necessary given the effectiveness of the alternative proposed measures that are contemplated in the *Consultation Paper* which effectively ensure transparency and awareness. A second respondent also noted that, regrettably, it was not able to technically implement such pre-recorded voice announcement to be played to the caller for all calls which would be blocked once the blocking measure in *Decision 1* is active. The third respondent noted that due to technical limitations, it cannot implement the facility that was proposed in the *Consultation Paper*. Lastly, the fourth respondent noted that its switch does not have the ability to implement the measure proposed, and that it therefore would not be able to fulfil the obligation.

In view of the feedback received, the MCA does not intend proceeding any further on the measure contemplated in *Proposed Decision 8*.

Notwithstanding, the MCA considers that it is still beneficial to explore alternative means to raise ‘real-time’ awareness for callers whose outgoing calls would be blocked when *Decision 1* comes into effect. The MCA is therefore committing itself to explore alternative means of raising such ‘real-time’ awareness, as per *Decision 8* (*next page*), in coordination with locally authorised VCS providers and/or operators of international network interfaces. Furthermore, *Decision 8* also envisages the implementation of any solution identified following consultation with such providers and/or operators.

Decision 8

The MCA will seek to coordinate with all locally authorised VCS providers and/or operators of international network interfaces to explore alternative means to raise 'real time' awareness for callers whose outgoing calls would be blocked when Decision 1 comes into effect and, based on the outcome of those interactions, implement any solution identified following consultation with such providers and/or operators.

5.5.3 Conclusion

Besides the steps that need to be taken by locally authorised VCS providers in accordance with *Decision 7* above, the MCA will also endeavour to raise awareness on this topic in due course to ensure further transparency on the potential impact.

Moreover, the MCA is keen to explore alternative technical solutions that could be implemented to enable end-users to test whether their call origination setup would be affected by the blocking measure, in accordance with *Decision 8* above. The MCA will endeavour to lead further discussions on such solutions in due course.

6 Performance Monitoring

The implementation of the blocking measures at the network level only constitutes a first step in the fight against these vishing scams. Accordingly, following such implementation, it will be crucial to monitor the effectiveness of these measures against the stated goal of mitigating scam calls whilst safeguarding legitimate calls.

6.1 Statistical information on blocked calls

In the *Consultation Paper*, the MCA had accordingly noted that the technical solutions to be implemented by operators of international network interfaces should also permit sufficient performance logging to draw insights on the effectiveness of the measures. Thus, the MCA had proposed that such technical solutions should provide the said operators with the ability to extract data or logs with sufficient detail to report statistical information to the MCA, as a minimum, on:

a. The total number of incoming calls blocked by the operator; and
b. The distribution, per CgPN prefix, of the number of incoming calls blocked by the operator.

On this proposal, feedback was received from four respondents. One of these respondents noted its support for *Proposed Decision 9*, remarking that there is merit in knowing the total number of incoming calls that are blocked by operators and that providers should refrain from implementing any ad hoc interventions on their own that may block legitimate calls. The MCA appreciates this respondent's support of the rationale behind *Proposed Decision 9*. With regard to the comment on the implementation of ad hoc blocking measures, the MCA understands this comment to be a reaction to the text included in *Proposed Decision 6* of the *Consultation Paper*. The MCA appreciates the support expressed by this respondent and notes that the obligation being referred to was retained in *Decision 6* above.

Another respondent noted that it had no objections with *Proposed Decision 9*, but stressed that its ability to extract and provide such data is fully dependent on the proper implementation of *Proposed Decisions 1* and *4*. It therefore concluded that determining whether or not such data could be extracted would only be possible once the blocking measure was implemented in accordance with the timeframes in the Decision Notice. Along similar lines, another respondent noted that it objected to the obligation of providing the requested statistical information, and remarked that the information is not necessarily captured at the point the call is being blocked. The MCA is taking account of the feedback raised by these two respondents that there could be technical limitations that restrict the extent of data gathering that would be possible, and is accordingly addressing this issue in the formulation of the obligation emanating from *Decision 9* below.

Finally, another respondent noted that, whilst it recognised the importance of monitoring the effectiveness of the blocking measure, it also considered that the MCA's primary goal ought to be the minimisation of the negative impact of such calls on end-users. Therefore, it argued that the effectiveness of the proposed measures is best measured by examining the instances where scam calls reach the end-users, rather than by measuring the amount of blocked calls. This respondent further added that the MCA could easily obtain this information from posts on social media and from reports filed with the Malta Police Force. Furthermore, the respondent noted that the *Proposed Decision 9* states that the MCA can request statistical information periodically but did not specify the duration for which such statistics should be retained. It concluded by noting that this aspect should be clarified in the Decision Notice if the MCA were to proceed with mandating this requirement.

The MCA acknowledges that the effectiveness of the blocking measures could be measured in various ways, and indeed, the possibility to monitor such effectiveness through the avenues mentioned is not being ruled out. Nevertheless, the MCA considers that the obligation suggested under *Proposed Decision 9* would enrich the insights available to the MCA in its fight against such scam calls. It should be noted that, regrettably, most cases of successful scams, (let alone scam calls generally), go unreported, thereby limiting the reliability of statistics stemming solely from the number of reported cases. Furthermore, whilst social media could shed some light on the type and extent of scamming activity targeting end-users in Malta, it is still not advisable to solely rely on such source to measure the effectiveness or otherwise of the MCA's activity in this domain.

Given the foregoing, the MCA cannot solely rely on secondary sources of data and social media posts, and it is therefore deciding to retain the obligation considered in *Proposed Decision 9,* in the form of *Decision 9* below, which accounts for the possible technical restrictions raised by some respondents, and also provides clarity on the retention period for such statistical information.

Decision 9

Operators of international network interfaces subject to implement the blocking measures mandated in Decisions 1 and 4 are to be able to extract data or logs from the implemented solution comprising sufficient detail to provide the MCA with statistical information, as a minimum, on:

a. the total number of incoming calls blocked by the operator; and

b. the distribution, per CgPN prefix, of the number of incoming calls blocked by the operator by virtue of Decisions 1 and 4.

Unless this obligation is lifted by the MCA in justified cases, such statistical information may be requested by the MCA from time to time. In this regard, operators are to ensure that they are able to submit statistical information for specific time periods up to a maximum of six (6) months prior to the request date.

6.2 Further monitoring and other aspects

As recognised in the preceding section, and duly pointed out by one respondent, the MCA recognises that further insights on the effectiveness of the measures may also be gleaned from the number of subscribers complaining about scam calls, or related impacts. Thus, the MCA also considers it appropriate for locally authorised VCS providers to keep records of the nature and quantity of such complaints. Correspondingly, the MCA may also leverage insights on the effectiveness of the measures from related complaints made directly with the MCA itself. Such insights may also facilitate the MCA's planning and priorities for any future interventions, for instance, by informing the MCA on what measures may require updating, or whether to proceed to a next phase of interventions.

Lastly, with regard to *Decisions 5* and *6*, the MCA recognises that the measures to be implemented are novel and may require specific monitoring with a view to prevent potential abuse. Thus, the MCA reserves the right to revisit these measures if it becomes aware that the dedicated interfaces are either being abused to convey scam calls by circumventing the rule-based filters at operators' international network interfaces, or if the dedicated interfaces are used to *transit* calls originated from unauthorised undertakings, in addition to conveying calls originated from an authorised overseas solution.

Furthermore, where there is evidence of misuse, unauthorised and/or fraudulent use of numbers or services through the provision of call origination services via overseas solutions, the MCA may require the:

- respective overseas solutions provider to terminate any relevant relationship with third parties;
- locally authorised PECN and VCS providers to cease service provision via any dedicated interfaces established with an overseas solutions provider who fails to comply with MCA's directions; and/or
- locally authorised VCS providers to cease conveying national interconnection traffic with a locally authorised VCS provider who recurrently fails to comply with MCA's directions.

7 Implementation

7.1 Implementation Dates

A summary of the implementation dates included in the above *Decisions* is presented in Table 1 below.

Decision	Implementation Date
Decision 1	1 November 2024
Decision 2	9 May 2024
Decision 3	Notification process: Commencing by no later than 23 May 2024 and concluding by no later than 6 June 2024 Publication of website information: By no later than 23 May 2024 and to be retained at least until 30 April 2025
Decision 4	1 November 2024
Decision 5	1 October 2024
Decision 6	1 October 2024
Decision 7	Notification process: Commencing by no later than 23 May 2024 and concluding by no later than 6 June 2024 Publication of website information: By no later than 23 May 2024 and to be retained at least until 30 April 2025
Decision 8	As directed by the MCA
Decision 9	From 1 November 2024 onwards

Table 1 - Implementation dates for the Decisions

The MCA considers that the implementation of the preventative measures mandated in this Decision Notice should positively contribute to mitigate CLI spoofing and vishing scams, and minimise the misuse, unauthorised or fraudulent use of Maltese numbers, to the benefit of end-users as well as all locally authorised ECS providers.

7.2 Implementation monitoring and other future work

The framework of measures introduced through this Decision Notice is an important first step in providing subscribers assigned Maltese numbers with a level of protection from CLI spoofing and vishing scams where the CgPN is a Maltese number from specific numbering ranges. Following the publication of this Decision Notice, the MCA will play a part in the process of raising awareness on the various measures and the respective implementation timeframes with stakeholders.

The MCA is sensitive that the measures to be implemented are innovative and could negatively impact certain use-cases if the necessary transition does not materialise. In this regard, the MCA will closely monitor stakeholders' progress with the implementation of the measures involved and the achievement of set milestones. In particular, the MCA will evaluate the effectiveness of the transparency measures and actively monitor for developments necessary to transition end-users away from unauthorised services, towards services that are locally notified and regulated. Within this context, the MCA reserves the right to provide additional direction to stakeholders in due course as may be deemed appropriate.

Moreover, the MCA envisages additional work on its part in the broader fight against ECS-based scams. In particular, the MCA will, in cooperation with relevant ECN/S providers and other potential stakeholders, continue with further study to establish any relevant measures that could address other forms of ECS-based scams that were not addressed through this Decision Notice. Furthermore, the MCA notes that scammers are continuously evolving their techniques, and this may, in itself, merit the adaptation of measures which are already in place or the introduction of additional measures. Based on the insights gained through such work, the MCA will determine whether it would be opportune to proceed with any identified updates of specific measures, or whether to proceed to a next phase of interventions.

Annex 1: Legitimate Call Types

The following figures present simplified call flows for the three types of legitimate calls introduced in Section 4.2. It should be noted that some additional steps may be involved, and that the figures presume that the CgPN of the originating caller is received by the operator of the international network interfaces. Furthermore, in keeping with *High-Level Principle 4* in Section 4.1, the MCA also considers that calls originated via the 'decoupling' route may be deemed to be a legitimate call type, albeit **solely** to the extent that these are originated by validated end-users via solutions (local or otherwise) offered by locally authorised providers of NB-ICS. The corresponding call flow for such calls is not included in this Annex.

Type 'A' calls: Calls placed by subscribers assigned national numbers towards national numbers when the calling party is connected to a network outside Malta

In Type 'A' calls, the flow for the call is relatively straightforward. The prerequisite for these calls is that a subscriber assigned a Maltese number, from either the mobile VCS ('7X' or '9X') or non-ICS ('4X') numbering ranges, connects with a network outside of Malta. Such connection is typically established when the subscriber roams internationally, but it can also involve devices connected with their home network abroad if the '4X' number was assigned extraterritorially. Regardless of how such connection is established, the first step in the call flow for Type 'A' calls is for the subscriber assigned these numbers to initiate a call towards a Maltese number whilst being connected to the foreign network. In such case, the CgPN would be a mobile VCS number from the '7X' or '9X' numbering range, or a number from the '4X' numbering range. This is captured as Step 1 in Figure 1 below, which presents a simplified representation of the Type 'A' call flow.

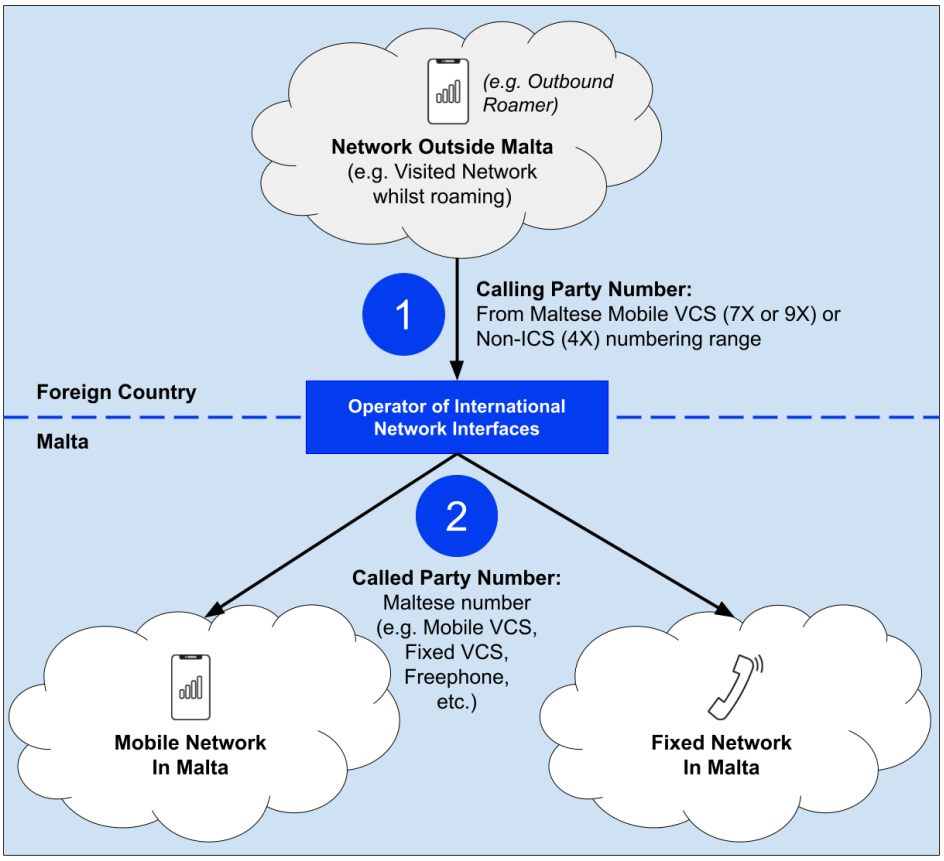

Figure 1 - Simplified flow for Type 'A' calls

From the point of origination onwards, the call is routed towards Malta (given the Maltese CdPN) and various 'hops' may be involved up until the call reaches an operator of international network interfaces. This operator then determines further routing depending on the CdPN, as shown in Step 2.

The operator of international network interfaces that is first to receive the incoming call in Malta may also be providing the subscription network for the CdPN, but this is not always the case, as international conveyance of calls depends on various factors, such as the commercial agreements established between providers. Thus, before the call reaches the subscription network to be subsequently terminated to the called party, further transit may occur in Malta between local operators.

Type 'B' Calls: Calls placed by subscribers assigned national numbers towards inbound roamers in Malta

In Type 'B' calls, the CgPN would be a Maltese number assigned to a subscriber in Malta, whilst the CdPN would be a foreign mobile number belonging to an end-user roaming in Malta (i.e. an inbound roamer). For example, consider the case of a receptionist calling from a hotel's Maltese fixed VCS number towards the foreign mobile number of a guest residing at the same hotel. Steps 1 and 2 in Figure 2 show the call being initiated by the subscriber assigned a Maltese number (Step 1), whereby (based on the foreign number dialled) the call is first routed, and conveyed over international network interfaces, towards the foreign subscriber's home network abroad (Step 2). At this point, since this foreign subscriber is inbound roaming in Malta, the respective home network would exchange signalling with the visited network in Malta, as per Step 3, to obtain the Maltese MSRN to be associated with the call towards the inbound roamer. Once the Maltese MSRN is obtained by the home network, the call is routed towards Malta and various 'hops' may be involved up until the point that the call reaches an operator of international network interfaces (Step 4). This operator then determines further routing on the Maltese territory to terminate the call to the intended inbound roamer.

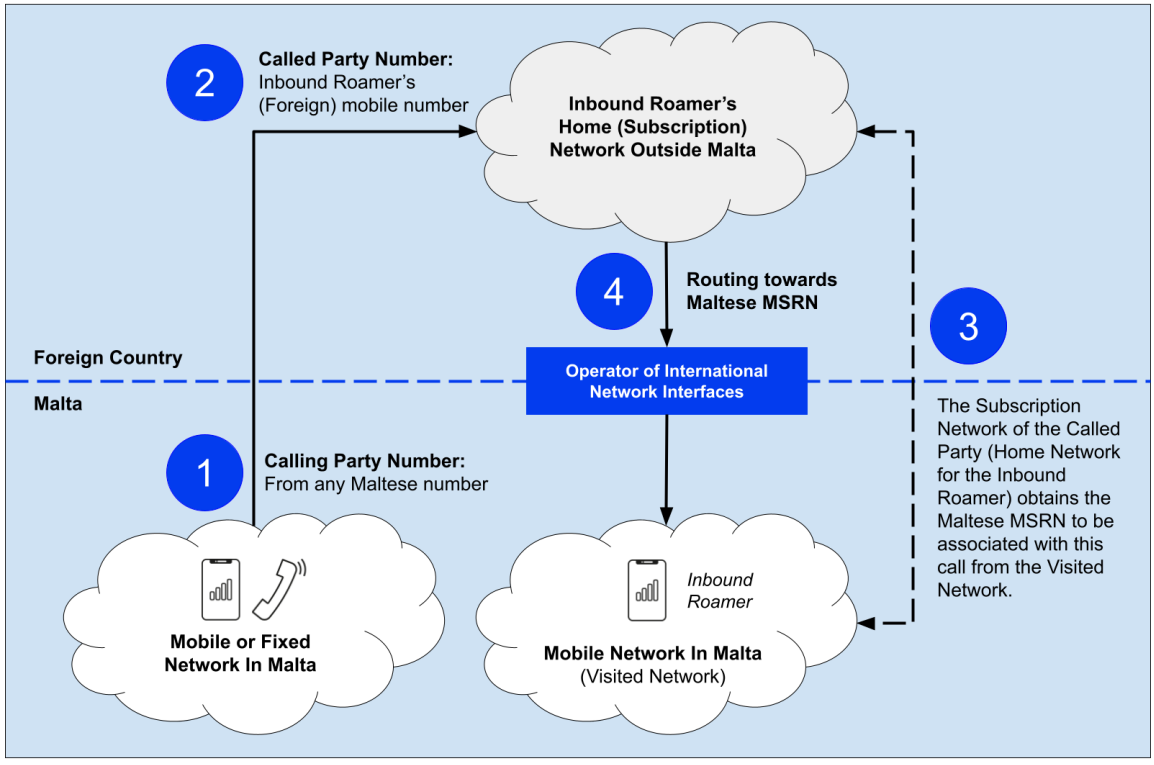

Figure 2 - Simplified flow for Type 'B' calls

The operator of international network interfaces that is first to receive the incoming call in Malta may also be the terminating operator providing the inbound roamer's visited network, but this is not always the case, as international conveyance of calls depends on various factors, such as the commercial agreements established between providers. Thus, before the call can be terminated to the called party, further transit may occur in Malta between local operators.

Type 'C' calls: Call forwarding in specific scenarios where the FTN is a Maltese number

Whilst Type 'C' calls comprise two distinct scenarios, both scenarios include an element of call forwarding which results in calls with a Maltese number appearing to be incoming over an operator's international network interfaces. Figure 3 illustrates the first scenario for such calls.

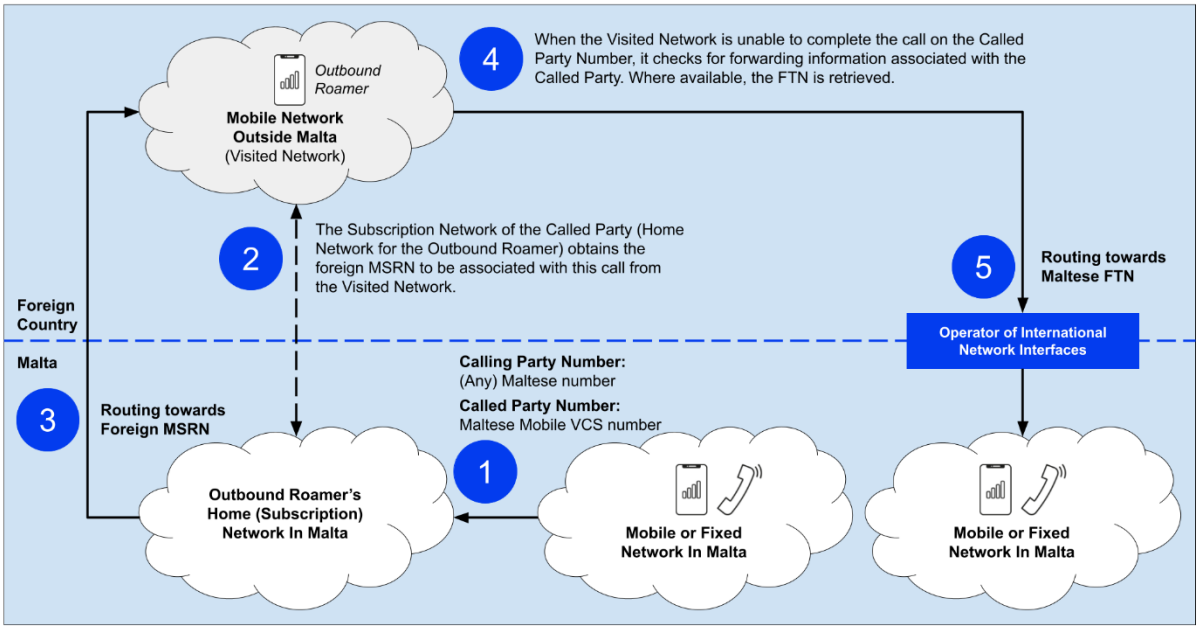

Figure 3 - Simplified flow for Type 'C' (Scenario 1) calls

In this "Type 'C' – Scenario 1", a call is placed by a subscriber assigned a Maltese number towards an outbound roamer (also assigned a Maltese mobile VCS number), and the call would subsequently be late forwarded to another Maltese number. In Step 1, the call with a Maltese CgPN is set up and routed to the called party's subscription network (home network) in Malta. At this point, since the called party is found to be outbound roaming at that time, the home network exchanges signalling with the visited network abroad, as per Step 2, to obtain the foreign MSRN to be associated with the call towards the outbound roamer. Once the foreign MSRN is obtained by the home network, the call is routed towards the visited network (Step 3) so that the latter could terminate the call. At this point, if the visited network is unable to complete the call towards the CdPN for some reason (e.g. outbound roamer is not reachable, busy or not answering), it checks the Visitor Location Register (VLR) for any forwarding information associated with the outbound roamer's profile and the specific reason why the call towards the CdPN could not be completed. Where available, a FTN is retrieved by the visited network (Step 4), and further routing decisions are based on this FTN.

In this scenario of Type 'C' calls, if the outbound roamer had set up late forwarding towards a Maltese FTN for the corresponding reason why the call towards the CdPN could not be completed, the visited network routes the call towards an operator of international network interfaces, as per Step 5. Such routing may involve transiting through other networks before reaching a Maltese operator.

Unless this operator is also providing the subscription network for the FTN, further transit would also be necessary between local operators in Malta until the call reaches the subscription network to be subsequently terminated to the party or service associated with the FTN.

A second scenario is illustrated in Figure 4 below. For “Type ‘C’ – Scenario 2” calls, a subscriber assigned Maltese numbers places a call towards a foreign number which has (unconditional or conditional) call forwarding set up towards another Maltese number.

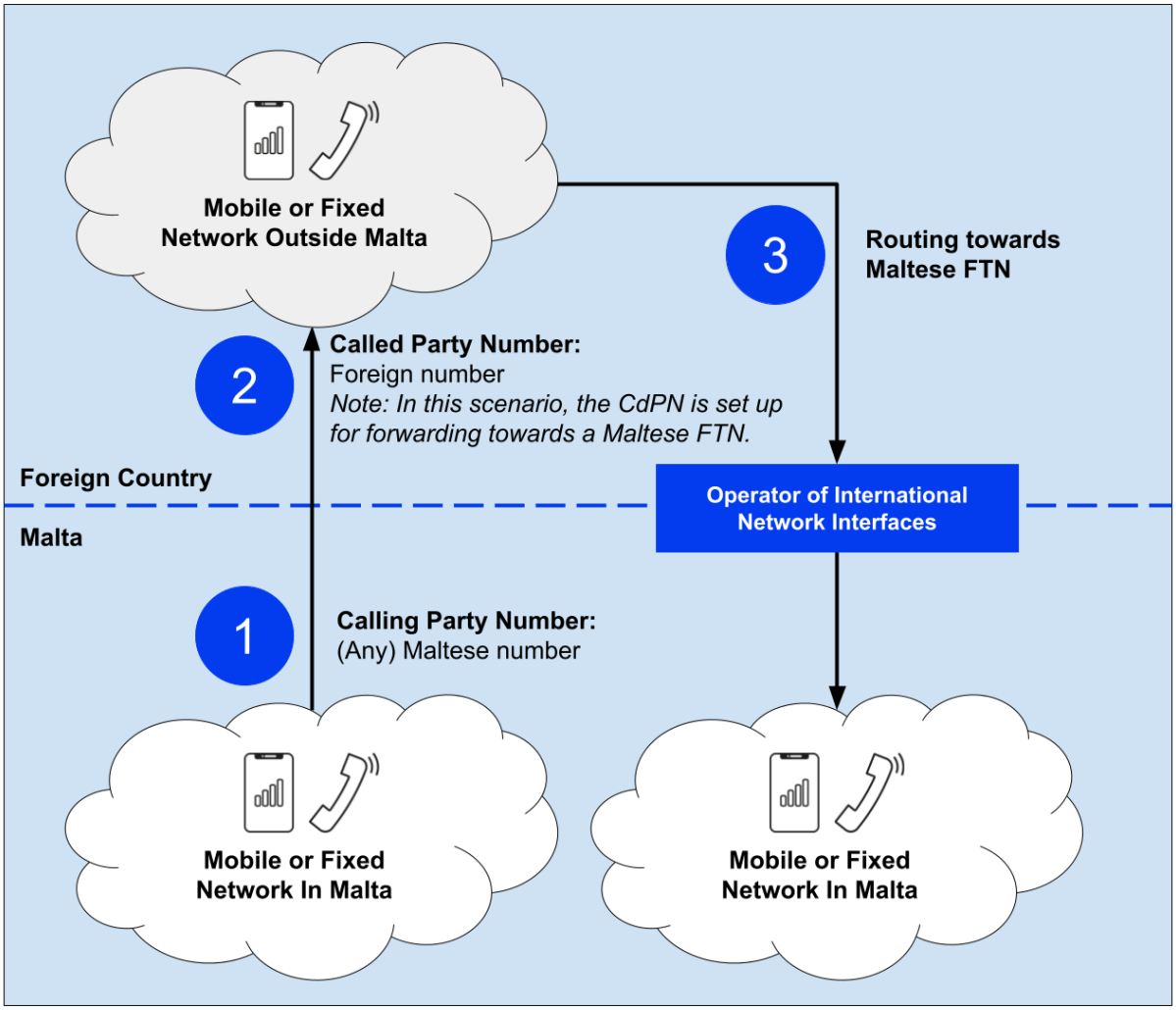

Figure 4 - Simplified flow for Type ‘C’ (Scenario 2) calls

Steps 1 and 2 in Figure 4 above show the call being initiated by the subscriber assigned a Maltese number (Step 1), whereby (based on the foreign number dialled) the call is first routed, and conveyed over international network interfaces, towards the foreign network abroad (Step 2). At this point, since the called party had set up (unconditional or conditional) call forwarding towards a Maltese FTN (number), the foreign network routes the call on a path towards a Maltese operator of international network interfaces for each call in the case of unconditional call forwarding, or when specific conditions involving the called party are met in the case of conditional call forwarding (e.g. called party is not reachable, busy or not answering), as per Step 3. Such routing may involve transiting through other networks before reaching a Maltese operator. Unless this operator is also providing the subscription network for the FTN, further transiting would also be necessary between local operators in Malta until the call reaches the subscription network to be subsequently terminated to the party associated with the FTN.

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