

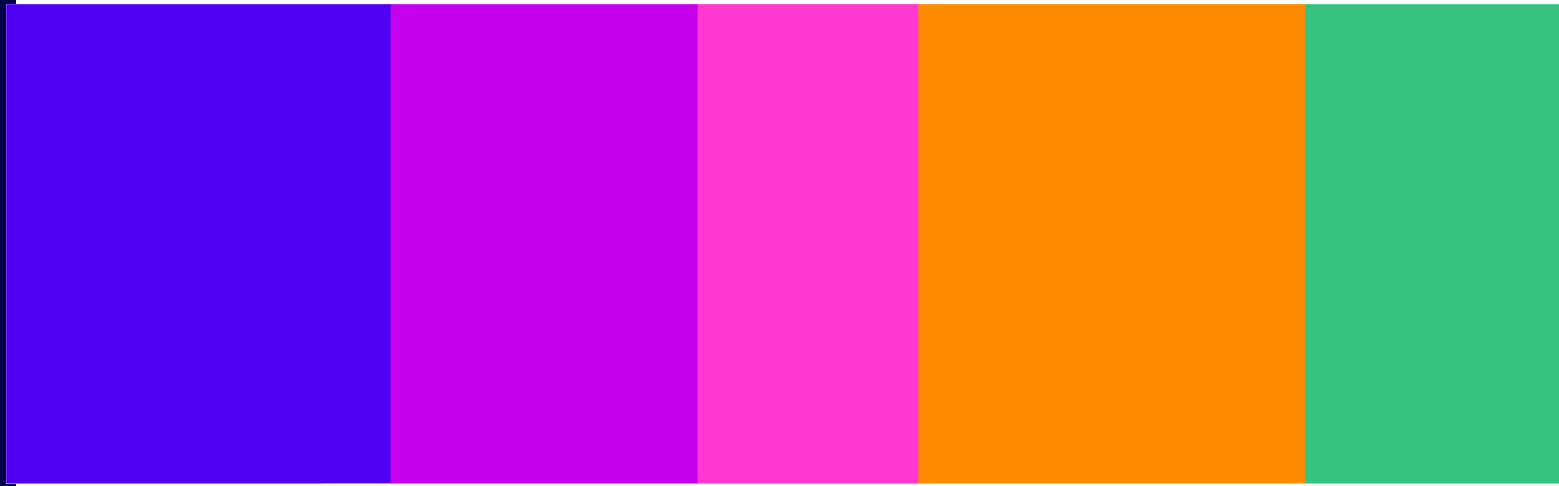
Tackling scam calls from abroad

Updating our Calling Line Identification Guidance to prevent scammers abroad from spoofing UK mobile numbers

Statement

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1. Overview

- 1.1 Organised criminals around the world contact people and businesses in the UK with scams over social media, online messaging apps, mobile messages, phone calls and other channels. Scammers may use multiple channels simultaneously, but the ability to make number-based phone calls is important to their activities. Phone calls can reach nearly anyone with a phone number, get their attention and enable a one-to-one interaction, which in turn enables scammers to build trust and to pressure or manipulate potential victims into making payments or revealing sensitive information.
- 1.2 Fraud accounts for an estimated 45% of all reported crime incidents in England and Wales¹ and victims of fraud lost £1.28 billion to criminals in 2025.² Those affected also suffer emotional harm, inconvenience and, where fraud starts with a mobile message or phone call, they may cease to trust the calls and messages that they receive entirely.
- 1.3 Protecting people from scammers is a priority for Ofcom. We use the range of our powers to stop scammers from accessing and using both telecoms and online services, adding friction to their activities across all the channels we regulate. Our work supports the UK Government's Fraud Strategy 2026 to 2029, which sets out how robust regulation will help ensure industry is accountable for further tackling fraud.³
- 1.4 People in the UK continue to receive scam phone calls often. In February 2026, 37% of UK phone users (landline and/or mobile) reported that they had received a suspicious call in the last three months.⁴
- 1.5 One common tactic that scammers use to try to get victims to engage with their calls is to 'spoof' phone numbers, to disguise the origin of the call and to make it appear more trustworthy.
- 1.6 This statement sets out how we expect communications providers to prevent criminals abroad from reaching people in the UK with calls that spoof UK mobile numbers. We are introducing updated guidance that will help protect phone users by closing a gap in existing protections.
- 1.7 The guidance is part of how we are strengthening protections for people and businesses against receiving scam communications over telecoms services and ensuring that they can continue to make, send and receive calls and messages with confidence.⁵ We have already set out the steps that we expect providers to take to identify calls from abroad that are spoofing UK landline numbers and to block them.⁶ Collectively, major telecoms providers

¹ National Crime Agency, 2026. [National Strategic Assessment 2026 of Serious and Organised Crime](#).

² UK Finance, 2026. [Annual Fraud Report 2026](#), p.12.

³ Home Office, 2026. [Fraud Strategy 2026 to 2029](#).

⁴ Ofcom, 2026. [Experiences of suspicious calls, texts and app messages](#), Q26. This survey was conducted using an online panel with a representative sample of the UK population aged 16+. Thirty-nine per cent (39%) of landline users reported receiving suspicious calls to their landline and 32% of mobile users reported receiving suspicious calls to their mobile.

⁵ Alongside this statement, we also published new rules and guidance for providers on measures to address scam mobile messages. Ofcom, 2026, [Combatting mobile messaging scams: New rules and guidance](#).

⁶ Ofcom, 2024. [Tackling scam calls: Updating our CLI Guidance to expect providers to block more calls with spoofed numbers](#).

are currently blocking around 1% of all calls entering their networks, which they identify as suspected scam or nuisance calls.⁷

1.8 Other measures we have taken to combat scam calls include:

- Clarifying the type of due diligence that UK providers should carry out when suballocating numbers to other providers.
- Helping providers to identify and block numbers that are associated with trusted organisations, such as banks and public bodies, which are never intended to make outbound calls. We record these in the Do Not Originate list, which we share with providers.

1.9 The updated guidance will take effect alongside industry's commitments under the Fraud Sector Charter to strengthen trust in voice communications and combat fraud on business-to-business voice and telephony.⁸

What we have decided - in brief

UK providers should withhold the Presentation Number of unverified calls that appear to come from UK mobile users roaming abroad. As a result, the Presentation Number will only appear to the call recipient where providers have verified the validity of the call.

We are amending our Calling Line Identification (CLI) Guidance to set out how we expect providers to process calls from abroad with UK mobile (+447) Presentation Numbers. When these calls first reach a UK provider (including entities acting as international gateways), the provider should modify the call's CLI data to mark the Presentation Number as 'withheld', unless they arrive over channels that verify them by design.

This measure will remove the ability of scammers outside the UK to present a spoofed UK mobile Presentation Number to people and businesses in the UK. This is because no UK provider will be able to verify the validity of these calls and therefore the Presentation Number will appear to the recipient as withheld.

We expect the effect of this measure to be that UK people and businesses will receive significantly fewer calls from scammers that appear to come from UK mobile users. In turn, this will reduce the likelihood that people engage with scam calls and suffer harm.

In 2025, we consulted on a further proposal that UK mobile operators should have arrangements in place with their roaming partner networks so that calls to the UK that their customers make while roaming abroad would be routed via the customer's 'home' network in the UK (wherever technically feasible) to check its legitimacy. After considering new evidence, we have decided that it would be disproportionate to implement this additional guidance, which would not further strengthen the protections we are introducing and would generate undue costs, which customers would ultimately bear.

The changes to our CLI Guidance will come into effect on **15 July 2027**, although we encourage providers to implement it as soon as possible.

⁷ This data is an aggregated estimate derived from monthly responses from mobile operators to a standing statutory information request issued on 12 September 2024.

⁸ Home Office, 2025. [Fraud Sector Charter: telecommunications](#).

2. Background

Purpose of this section

2.1 This section describes:

- How we are tackling fraud and scams across all the services we regulate (paragraphs 2.2-2.5).
- How scammers target people and businesses in the UK with calls that appear to come from legitimate UK callers (paragraphs 2.6-2.12).
- The range of measures we have implemented to combat scam calls (paragraphs 2.13-2.22).
- The gap in our current protections in relation to calls from abroad that display UK mobile numbers and how scammers exploit this (paragraphs 2.23-2.42).
- The objective and the scope of our assessment (paragraphs 2.43-2.48).

We are tackling fraud and scams across all the services we regulate

- 2.2 Organised criminals use a range of communications technologies and services to contact potential victims and to try to manipulate them into making payments or sharing sensitive information. For example, scammers may make initial contact with a potential victim with a phone call or a Short Message Service (SMS) message, or they may encourage the potential victim to make contact by posting a fraudulent advert on a search engine or on social media. The scammer may then ask the victim to communicate with them using an online messaging app.
- 2.3 Ofcom has powers under the Communications Act 2003 (the Act) to ensure that telecoms services, such as number-based telephony⁹, are used efficiently and effectively and are not misused, for example to facilitate fraud or scams. Ofcom also has powers under the Online Safety Act 2023 to oversee how online services fulfil their duties to tackle fraud.
- 2.4 We work to protect users of all the services that we regulate from harm from fraud and scams. To do this, we require industry to take measures to stop scammers from accessing and using communications services, disrupting scammers' activities.

⁹ We use 'number-based' throughout this statement as shorthand for 'Number-Based Interpersonal Communications Service'. This term is defined in section 32A of the Act and in summary means a service made available to the public that: (a) enables direct interpersonal and interactive exchange of information by means of electronic communications networks between a finite number of persons, where the persons initiating or participating in the communication determine its recipient; and (b) connects with or enables communication with numbers from a national/international numbering plan: for example, fixed and mobile telephone services, or Voice over IP services that call or receive calls from ordinary phone numbers. It does not describe number-independent services such as over-the-top voice services (e.g. WhatsApp voice or video calls).

- 2.5 Alongside this statement, we have published new rules and guidance on the steps mobile operators and business messaging aggregators must take to protect people and businesses from scam number-based mobile messages.¹⁰

Scammers target people and businesses in the UK with calls that appear to come from legitimate UK callers

- 2.6 Number-based phone calls are important to scammers' tactics. Phone calls can reach nearly anyone with a phone number, get their attention and enable a one-to-one interaction, which in turn enables scammers to build trust and to pressure or manipulate potential victims into making payments or revealing sensitive information.
- 2.7 People in the UK often receive scam number-based phone calls on their landlines and mobile phones. This is because it can be challenging for providers to identify which calls are legitimate and which are scams that they should block or flag to the recipient.
- 2.8 UK phone users receive suspicious calls at scale. In February 2026, 37% of all landline and/or mobile phone users said that they had received at least one suspicious call in the last three months.¹¹
- 2.9 Scammers seek to reach people with calls that display numbers conveying legitimacy or authority. This may encourage the recipient to pick up the phone and to trust the caller. When seeking to scam people and businesses in the UK, scammers around the world either: seek access to UK legitimate phone numbers, which they may use temporarily and discard (for example, using a number associated with a UK SIM as part of a SIM farm operation); or spoof a UK number.

How can scammers spoof numbers?

Scammers can modify the number they are calling from because modern telephony systems allow callers to alter Calling Line Identification (CLI) data. CLI data are signalling messages, attached to each call, which pass between providers to the end user. They signal the point of origin of the call and/or the identity of the calling party.

There are two numbers associated with CLI data: the Presentation Number and the Network Number. Call recipients see the Presentation Number when they receive a call. It can help them decide if they wish to answer the call or return it. The Network Number identifies the origin of the call to providers.¹²

In most cases the Presentation Number and the Network Number are the same, but some callers choose to display a Presentation Number that is different to the Network Number for legitimate reasons, including where:

- Call centres make calls on behalf of one or more different businesses.

¹⁰ Ofcom, 2026, [Combatting mobile messaging scams](#).

¹¹ Ofcom, 2026. [Experiences of suspicious calls, texts and app messages](#), Q26. Thirty-nine per cent (39%) of UK landline users aged 16+ reported receiving suspicious calls to their landline and 32% of mobile users reported receiving suspicious calls to their mobile.

¹² Telephone calls are transitioning to SIP technology. In the context of SIP, the Presentation and Network Number correlate to the FROM and P-Asserted Identity header field in SIP (see [NICC ND1035](#)). We continue to use Presentation and Network Number in this document for simplicity.

- Organisations make calls from different locations and wish to display a common contact number (e.g. a freephone number that people may use to call back).
- People wish to display a business number when calling from a private line.

- 2.10 UK phone users appear to be more likely to engage with calls that seem to be from UK mobile numbers than calls from international numbers or withheld numbers. This suggests that spoofing UK numbers, including UK mobile numbers, is helpful to scammers. In February 2026, our consumer research found that:¹³
- 24% of mobile and/or landline users said they were likely or very likely to pick up a call from an **unrecognised UK mobile number**, while 53% were unlikely or very unlikely to do so.
 - 8% of mobile and/or landline users were likely or very likely to pick up a call from an **international number** with an unrecognised country code, while 76% were unlikely or very unlikely to do so.
 - 17% of mobile and/or landline users were likely or very likely to pick up calls from **withheld numbers**, while 62% were unlikely or very unlikely to do so.
- 2.11 We discuss in the next section that it is very likely that a significant number of calls to the UK spoof UK mobile numbers, which suggests that scammers see spoofing as a way to make their calls appear more credible.
- 2.12 We set out below how scammers abroad can reach potential victims in the UK with spoofed calls by exploiting vulnerabilities in the channels that networks use to route calls from UK roaming customers outside the UK.

We have implemented a range of measures to combat scam calls

- 2.13 We have introduced a range of measures to make it more difficult for scammers to use UK telecoms services to make scam calls. These include rules that impose requirements on providers in relation to their use of numbers and CLI facilities.
- 2.14 Our rules for the provision of CLI facilities are set out in General Condition (GC) C6. GC C6.6 requires providers to identify and block calls from abroad that spoof UK numbers:
- “Where technically feasible, Regulated Providers must:*
- (a) take all reasonable steps to identify calls, other than calls to Emergency Organisations, in relation to which the CLI Data provided is invalid, does not uniquely identify the caller, or does not contain a Telephone Number that is dialable; and*
 - (b) prevent those calls from being connected to the called party, where such calls are identified.”*

¹³ Ofcom, 2026. [Experiences of suspicious calls, texts and app messages](#), Q12.

- 2.15 We have issued guidance setting out the measures we expect operators to take to comply with our rules, including clarifying the type of due diligence that UK providers should carry out when suballocating numbers to other providers.¹⁴
- 2.16 We have also issued our CLI Guidance, which includes the steps that we expect providers to take to identify calls from abroad that spoof UK landline Network Numbers and/or Presentation Numbers and block them, except in a limited number of circumstances.¹⁵
- 2.17 Our most recent CLI Guidance (which came into effect in January 2025) sets out how providers should process calls that reach UK networks from abroad that display a UK Presentation Number. This can include blocking the call.¹⁶
- 2.18 The CLI Guidance also sets out how providers should identify and block calls from numbers that are associated with well-known organisations (such as public bodies and banks) and that are never intended to make outbound calls. We record these numbers in the Do Not Originate list.¹⁷ This makes them difficult to use as part of scam tactics.
- 2.19 Collectively, major landline and mobile telecoms providers are currently blocking around 1% of all calls entering their networks, which they identify as suspected scam or nuisance calls.¹⁸
- 2.20 The measures in our CLI Guidance have reduced the opportunities for scammers abroad to successfully spoof UK landline telephone numbers and the numbers of well-known organisations.
- 2.21 In principle, identifying and blocking calls from abroad that spoof UK mobile numbers is also within the scope of GC C6.6, because these calls do not uniquely identify the caller (and the number used for these calls may also not be valid or dialable):
- If a scammer is spoofing a number that Ofcom has allocated then they may be spoofing a number that is currently and legitimately in use by another business or individual. The CLI data associated with a call from an allocated number should uniquely identify the individual or business that has been allocated that number. A scam call from another individual or business that has spoofed an allocated number will not therefore uniquely identify the caller.
 - If a scammer is spoofing a number that is unallocated then they are spoofing a number that has not been authorised for use by Ofcom or has been withdrawn from use. The CLI data associated with a call from an unallocated number or a number that has not been assigned will not be valid, will not uniquely identify the caller and will not contain a telephone number that is dialable.
- 2.22 However, we have not previously clarified how we expect providers to identify and respond to calls from abroad that spoof UK mobile numbers. We set out below why there can be technical challenges to checking the validity of these calls.

¹⁴ Ofcom, 2022. [Statement: Good practice guide to help prevent misuse of sub-allocated and assigned numbers.](#)

¹⁵ Ofcom, 2024. [Tackling scam calls: Updating our CLI Guidance.](#)

¹⁶ Ofcom, [CLI Guidance: Guidance on the provision of Calling Line Identification facilities and other related services.](#)

¹⁷ Ofcom, [Do Not Originate List.](#)

¹⁸ This data is an aggregated estimate derived from monthly responses from operators to a standing statutory information request issued on 12 September 2024.

There is a gap in our current protections in relation to calls from abroad that display UK mobile numbers

- 2.23 UK mobile numbers generally use '+447' for both the Network Number and Presentation Number CLI.¹⁹ As we have set out, scammers abroad may spoof +447 Presentation Numbers to make their calls appear more legitimate and trustworthy to potential victims in the UK.
- 2.24 Some providers of Voice over IP (VoIP)/over the top (OTT) voice services also offer access to 'virtual' +447 numbers, which are not associated with any physical device. One example is services for self-employed people, who may use temporary UK mobile numbers to avoid having to call customers from their personal number. Calls from virtual +447 numbers may originate outside the UK (e.g. from a data centre).
- 2.25 There is not a commonly-agreed process by which networks can check, in all cases, whether inbound international calls with +447 Presentation Numbers are from UK mobile users roaming abroad, from users of virtual +447 numbers, or from scammers who are spoofing these numbers. For this reason, our CLI Guidance exempts international calls that display a UK mobile Presentation Number from blocking, so as not to hinder legitimate calls.²⁰
- 2.26 This means that there is a gap in our regulations, which scammers can exploit. When they make calls to the UK from abroad that present a spoofed UK mobile Presentation Number, we do not require providers to identify and block it.
- 2.27 Below, we set out why it can be technically challenging for providers to differentiate between legitimate calls displaying UK mobile numbers from UK customers roaming abroad.

Scammers abroad can exploit the absence of checks on routes for calls to enter the UK

- 2.28 When a call from abroad with a +447 Presentation Number reaches the UK (including legitimate calls from UK roaming customers, virtual +447 numbers and spoofed calls), there are two main routes by which it can enter UK telephone networks:
- One route is for UK roaming customers: when the customer makes a call back to the UK, their UK provider (i.e. a mobile operator) may have technical and commercial arrangements in place with roaming partner networks that enable it to check the call is valid, before it reaches the recipient.
 - Another other route is via an entity providing international gateway functionality (an 'international gateway provider'²¹, which can include international carriers). This entity

¹⁹ In this statement, references to +447 numbers describe UK mobile numbers only. This document does not consider the processing of calls from 070 personal numbers and 076 paging numbers.

²⁰ Ofcom, [CLI Guidance: Guidance on the provision of Calling Line Identification facilities and other related services](#). The Guidance exempts "calls with a CLI from the +447 range. This is to ensure calls from UK (and Crown Dependency) mobile users roaming on a non-UK (or non-Crown Dependency) network making calls back to +44 numbers are not blocked" (4.19A, p.15).

²¹ In this statement, we use the term international gateway provider to refer to any communications provider which brings a call into the UK telephone network for the first time in the call's routing journey, acting as the first point of ingress to the UK network. The International Telecommunication Union (ITU) defines an international gateway as "any facility through which electronic communications (voice, data and video) can be

may not have a direct relationship with the calling party's home mobile provider (if they have one) and therefore may not have any method to validate the legitimacy of the specific number the call presents before routing it on to the recipient.

- 2.29 In each case, the call will typically display the user's UK mobile Presentation Number to the recipient, unless the caller elects to withhold it.²²
- 2.30 We explain these routes in more detail below.

Calls to the UK that originate on 4G or 5G connections feature inherent checks, while calls originating on 2G, 3G or fixed lines may not

- 2.31 Mobile providers enable their UK customers to make calls when abroad through roaming agreements with mobile providers in other countries.²³ When the customer's mobile device connects to a network in the visited country, the home network provides the profile of the roaming customer's services to the roaming partner network.
- 2.32 Where a mobile customer is roaming on a visited network using 4G²⁴ or 5G²⁵ connections (Voice over LTE, or VoLTE²⁶, and Voice over New Radio, or VoNR, respectively), UK mobile operators have arrangements with their roaming partner networks to 'home route' calls made to the UK, via the caller's UK home network, before they reach the recipient. An increasing number of roaming calls to the UK from abroad present a +447 Presentation Number originate on technologies which use network home routing.²⁷
- 2.33 The roaming mobile user's home network will check calls over networking home routing and validate the callers' Presentation Numbers as an inherent part of the way these technologies work. Therefore, in practice, it is difficult for scammers to reach people and businesses in the UK with calls spoofing UK numbers over this channel.
- 2.34 Where a mobile customer is roaming on a visited network using 2G or 3G connections, the signals back to the customer's home network in the UK may be supported by 'Customised Applications for Mobile Enhanced Logic' (CAMEL) standards. These can support home routing calls back to the UK via the caller's home network.

sent between the domestic networks of one country and another (ITU, [Liberalising International Gateways](#)) [accessed 2 June 2026].

²² While the CLI presented might be withheld by the calling party, the underlying CLI data would still represent a UK mobile number.

²³ Mobile network operators, as well as some mobile virtual network operators and mobile virtual network enablers, will often have hundreds of roaming agreements in place with multiple providers in other countries.

²⁴ S8 Home Routed (S8HR), GSMA November 2021, [EPS Roaming Guidelines Version 25.0](#).

²⁵ N9 Home Routed (N9HR), GSMA January 2025, [5GS Roaming Guidelines Version 12.0](#).

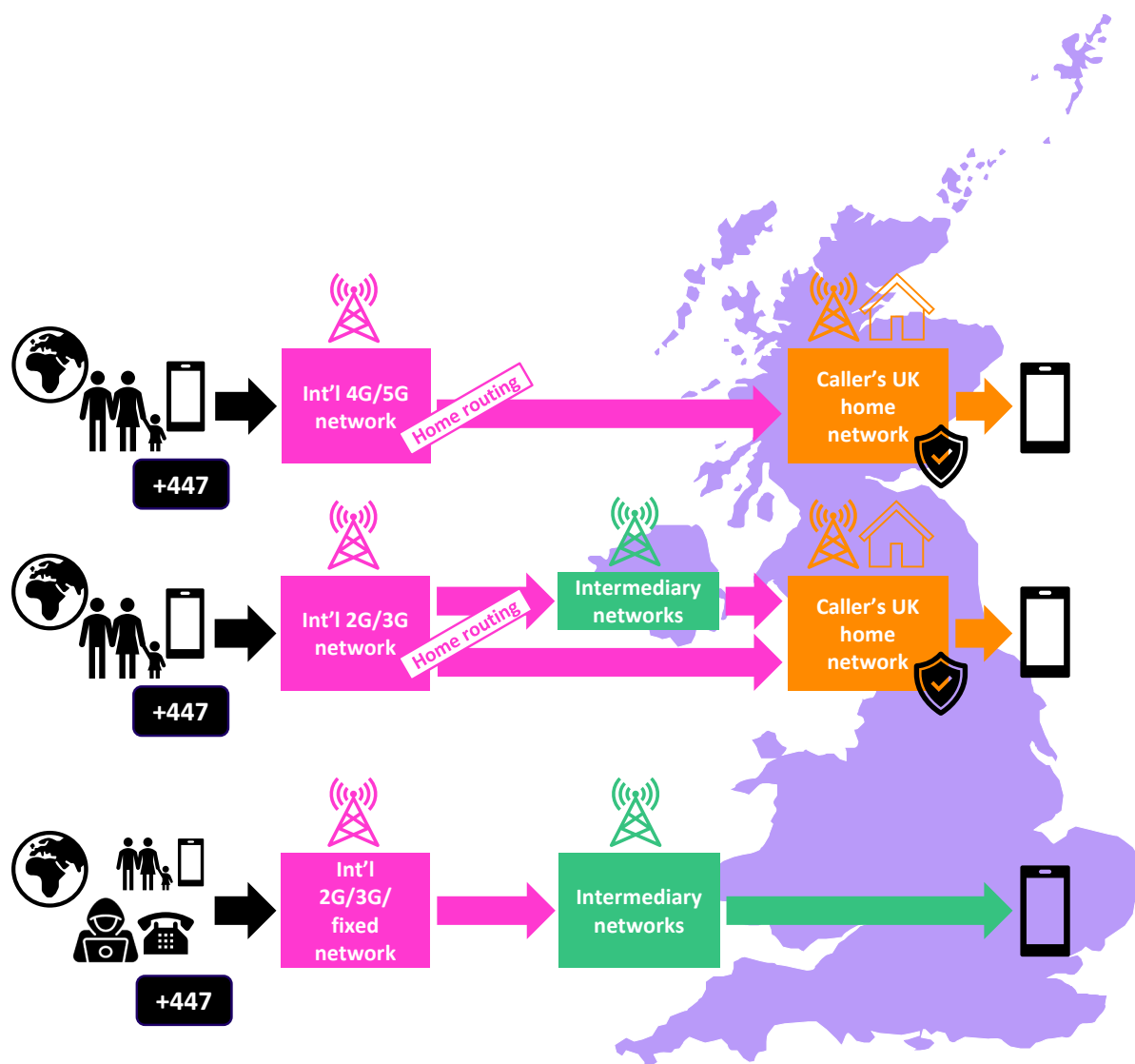
²⁶ In this document, "network home routing" is used as shorthand for phone calls carried using S8 Home Routing (S8HR). Where relevant, the term should also be read as covering N9 Home Routing (N9HR) and other equivalent or successor technologies. Although those terms may be more technically precise in some contexts, we use "network home routing" for simplicity.

²⁷ It is not currently possible to calculate the proportion of calls with +447 Presentation Numbers that enter UK networks over network home routing connections as a proportion of the total number of calls entering UK networks. This is because providers do not in all cases gather data on volumes of calls by type or in a way that makes an estimate of this proportion possible. However, as we outline in sections 3 and 4, there is very strong evidence that calls to the UK from +447 numbers that are made on 2G and 3G connections are diminishing as roll-out of network home routing-based roaming continues.

- 2.35 However, for calls originating on visited 2G and 3G networks, the call may be routed to a recipient in the UK in one of two ways:
- a) Home routing the call via the caller's UK home network (supported by CAMEL standards); or
 - b) Routing it to its destination through intermediary networks, including international gateway providers, without the call passing through or interfacing with the home network.
- 2.36 Unlike 4G and 5G calls, there is no inherent capability within the signalling to validate the authenticity of the Presentation Number for calls made to the UK using 2G or 3G connections. Therefore, where intermediary networks route the call to its destination without it passing through the home network, those intermediary networks may have no consistent or effective approach to checking the validity of the call's Presentation Number. This means that international gateway providers may not have access to information about whether UK mobile numbers are associated with users roaming abroad, or any direct relationship with the caller's home mobile provider to enable it to check the call's validity.²⁸
- 2.37 In this way, intermediary networks may also route on calls that originate on non-mobile networks, such as fixed lines that display a +447 Presentation Number. These could include, for example, calls from virtual +447 numbers that originate in data centres, which could be routed on without a means of checking the validity of the call.

²⁸ Respondents to our 2024 call for input indicated that the visited network abroad, not the customer's home network, would determine which international gateway provider will bring a call into the UK. For example, Vodafone noted that 'once a Vodafone UK customer roams onto a non-Vodafone Group network, how calls are routed to the UK are then out of our control'. [Vodafone response to our 2024](#), p.3.

Figure 1: Illustration of how calls that display UK mobile Presentation Numbers reach UK people and businesses and how scammers can exploit the absence of checks on 2G, 3G and fixed line calls



- 2.38 Although a growing number of roaming calls are made over network home routing, 2G and 3G networks will continue to operate around the world for the foreseeable future and network home routing-based roaming is unlikely to be globally ubiquitous for UK mobile users for some time. This means that, in the short to medium term, networks will continue to route many calls that enter the UK with +447 Presentation Numbers to their destination without any means of verifying the Presentation Number. Networks will also route calls that originate on fixed lines and that display a +447 Presentation Number over this channel without any means of verifying the Presentation Number.
- 2.39 Applying 'is-roaming' checks to all calls entering UK networks from abroad would pose significant challenges, such as the need to establish agreement on standardised checks, the development or designation of a trusted validation function and integrating these capabilities into networks. In some jurisdictions, these challenges have been addressed by

building on established ecosystems, whereas in the UK there is currently no directly-equivalent framework in place.^{29 30}

- 2.40 Therefore, we are concerned that criminals abroad can exploit the gap in our CLI Guidance to spoof UK mobile numbers (thereby encouraging people and businesses in the UK to engage with their calls).
- 2.41 However, providers acting as the first point of ingress to UK networks, and other intermediary UK providers that may route calls onward to recipients, are subject to GC C6.6, which (in principle) requires providers to identify and block calls from abroad that these numbers.
- 2.42 This statement sets out how we will close the gap and address the problem of criminals abroad reaching people and businesses in the UK with calls that spoof UK mobile numbers.

Our objective and the scope of our assessment

- 2.43 Taking into account our general and numbering duties (set out in Annex 2), we have a longstanding objective of countering scam calls. We set out our strategy to make it harder for scammers to operate at every stage of the value chain in our 2022 policy positioning statement on tackling scam calls and texts.³¹
- 2.44 In our 2024 CLI authentication assessment and future roadmap, we noted that we would explore options for blocking calls or preventing calls from abroad presenting a spoofed UK mobile number.³² In 2024, we published a call for input on options to address mobile spoofing from abroad, including methods for identifying genuine UK roaming customers abroad and measures introduced by other jurisdictions.³³ Our 2024 call for input sought data on the scale of the problem and how long it would take to implement potential solutions.
- 2.45 We received responses from stakeholders on a range of potential options to address the issue. Since the publication of our 2024 call for input, we have further reviewed how to achieve the policy objective of **significantly reducing the likelihood that scammers operating outside the UK can successfully reach UK consumers with calls displaying spoofed UK mobile numbers**.
- 2.46 In 2025, we published a consultation on tackling spoofing of UK mobile numbers from abroad, in which we proposed remedies to achieve our policy objective and address the harm these calls cause (see section 3, below).³⁴ We have since considered responses to our 2025 consultation and issued formal information requests to further inform our assessment. Section 4 sets out our decision and the rationale for our intervention.

²⁹ For example, some jurisdictions have introduced status checks on incoming calls against the mobile roaming status of a user, with a real time query sent to check the roaming status of the customer directly to the operator which owns the number. These countries include Oman, Poland and Saudi Arabia. See GSMA, 2023. [Improving CLI Validity - Solutions and Regulatory Assessment](#), p.8.

³⁰ We note that some jurisdictions have more complete information on the participants in their communications networks than the UK (for example, they may have a licensing regime for international gateway providers and/or a smaller number of operators in the market).

³¹ Ofcom, 2022. [Tackling scam calls and texts: Ofcom's role and approach](#).

³² Ofcom, 2024. [Calling Line Identification \(CLI\) authentication assessment and future roadmap](#).

³³ Ofcom, 2024. [Reducing scam calls from abroad which spoof UK mobile numbers](#).

³⁴ Ofcom, 2025. [Tackling scam calls from abroad](#).

- 2.47 Our assessment throughout this process has focused on tackling spoofing of UK mobile numbers over number-based telephony services, which are subject to the General Conditions. This publication does not consider addressing scam calls from numbers allocated to providers, nor calls that are not number-based phone calls, such as WhatsApp voice calls or video calls.
- 2.48 The Bailiwicks of Jersey and Guernsey and the Isle of Man (which are constitutional dependencies of the British Crown, known as the ‘Crown Dependencies’) use +44 numbers but are not subject to our regulation. We set out in section 4, below, how changes to our CLI Guidance could affect phone users in the Crown Dependencies.

Structure of this document

- 2.49 The rest of this document is structured as follows:
- Section 3 describes the harm that results from scam calls, including calls that spoof UK mobile numbers. It also sets out our assessment of whether we could address these harms and achieve our policy objective without further intervention.
 - Section 4 assesses a set of measures to address scam calls that spoof UK mobile numbers, their benefits, proportionality and our final decision to implement changes to our CLI Guidance.
- 2.50 The annexes to this statement are as follows:
- Annex 1: Changes to our CLI Guidance.
 - Annex 2: Legal framework.
 - Annex 3: Impact assessments.

3. Harm from scammers abroad spoofing UK mobile numbers

Purpose of this section

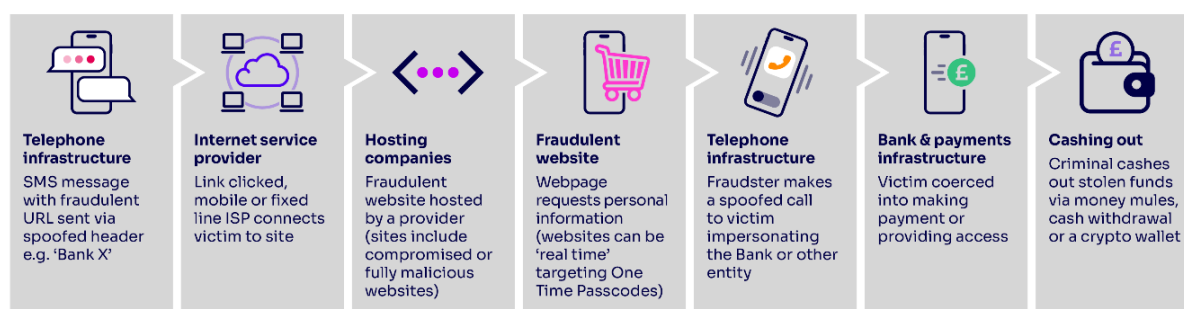
- 3.1 In this section, we provide an assessment of the harm from scam calls from abroad that spoof UK mobile numbers, taking into account responses to our 2025 consultation and drawing on more recent data where available.
- 3.2 In response to our 2025 consultation, most stakeholders agreed with our findings on the types and scale of harm that are likely to result from calls that spoof UK mobile numbers. However, some noted that data limitations make it difficult to determine the true extent of the harm.
- 3.3 Below, we set out:
- How phone calls play a significant role in facilitating scams (paragraphs 3.4-3.5).
 - How spoofing UK mobile numbers appears to be an important tactic for scammers, including our assessment of the scale and impact of these calls (paragraphs 3.6-3.16).
 - Our assessment of the financial and emotional impact of fraud initiated on telecoms networks (paragraphs 3.17-3.36).
 - Our view that people and businesses are at risk without new regulatory protections (paragraphs 3.37-3.42).

Phone calls play a significant role in facilitating scams

- 3.4 Phone calls are one of a range of channels that criminals use to pressure and manipulate people into either directly transferring money to them (authorised push payment, or APP fraud) or divulging sensitive information, such as passwords, which criminals can use to initiate fraud (unauthorised payment fraud). Other tactics can include using, for example, mobile messages, email, fake websites or social media posts to reach potential victims.
- 3.5 As set out in section 2, phone calls by the scammer can play a significant role even where first contact is made through other means. For example, a malicious SMS or email might lead the recipient to a fraudulent website (used to obtain information about the victim) and the scammer may then contact the victim by phone (e.g. impersonating their bank or using a UK mobile number to pose as a recruiter) to request a payment.³⁵

³⁵ Frontier Economics, 2022. [Tackling Fraud and Scams: An Ecosystem-Wide Approach](#), pp.13-14.

Figure 2: An illustrative fraud chain



Spoofing UK mobile numbers appears to be an important tactic for scammers

- 3.6 Phone calls enable personalised, one-to-one interactions, which means that scammers go to great lengths to make their calls seem legitimate, including making use of number spoofing.³⁶ The appearance of legitimacy can help scammers to build trust and make it more likely their victim will lower their guard.
- 3.7 Appearing to be a UK mobile user can lend the scammer the appearance of legitimacy even when recipients do not recognise the number. As set out in section 2, our research shows that mobile and/or landline users are more likely to answer a call displaying a UK mobile number that they do not recognise than calls which show an international number with an unrecognised country code or as number withheld.³⁷
- 3.8 Some providers have also told us that, since our guidance on blocking calls that spoof UK landline numbers came into effect in January 2025 (alongside other measures), scammers may be substituting mobile spoofing for landline spoofing.³⁸

Scale of mobile spoofing

- 3.9 Many responses to both our 2024 call for input and our 2025 consultation agreed that spoofed UK mobile numbers continue to cause harm and that, while the scale of this issue was difficult to quantify, there were some indications that the number of calls entering UK networks with spoofed UK mobile numbers remains significant. Respondents to both publications indicated that the challenge in specifying this scale was mostly a consequence of technical factors, including that only a very small percentage of overall spoofed call incidents are ever reported by customers.
- 3.10 In its response to our 2025 consultation, one of the UK mobile network operators (MNOs) noted that 2G/3G roaming traffic from its customers in August 2025 (in call minutes) was less than one-fifth of the traffic brought in by its international carrier with +447 CLIs in the

³⁶ Communications Consumer Panel, December 2020. [Scammed! Exploited and afraid: What more can be done to protect communications consumers from the harm caused by scams?](#), p.10.

³⁷ Ofcom, 2026. [Experiences of suspicious calls, texts and app messages](#), Q12.

³⁸ For example, Three noted that "it seems reasonable to assume that with the recent implementation of UK fixed line network number blocking by international gateway providers and the upcoming extension to fixed line presentation numbers, the only route left open for scammers to exploit is spoofing mobile CLIs" ([Three response to our 2024 call for input](#), p.2), while PXC stated that 'this [spoofing of UK mobile CLI] now remains one of the few exploitable routes available, other than where upstream providers have not effectively applied NICC ND1447 rules' ([PXC response to our 2024 call for input](#), p.4).

same period.³⁹ The implication, the MNO said, was that most calls with +447 CLIs from overseas are likely to be spoofed.

- 3.11 The figures presented by this MNO suggested that tens of millions of call minutes, that it considered likely to be spoofed, entered its network in a single month.
- 3.12 In early 2026, we issued formal information requests to several providers to obtain more information on (among other things) the volume of calls from abroad that arrive on UK networks and that appear to be from UK mobile numbers calling from abroad (to provide further evidence on the potential scale of spoofed UK mobile calls).
- 3.13 Our assessment of the evidence received in response to our information request indicates that substantially more calls may arrive on providers' networks presenting +447 numbers than are made by known mobile customers who are roaming.⁴⁰ Across the UK MNOs, the volume of inbound calls presenting +447 numbers was around six times higher than the volume of calls they knew to be genuine, with individual estimates of the number of calls received versus known genuine calls ranging from approximately four times to thirteen times the difference.
- 3.14 There is no data available that allows us to distinguish reliably between calls made using other legitimate uses of +447 numbers and calls where the number has been spoofed. However, given the scale of the difference between the volume of inbound +447 calls and the volume of known genuine calls, and reports of higher levels of calls from mobile numbers from abroad following the blocking of fixed line numbers under our CLI Guidance, we consider that this category of spoofed calls is likely to be significant.
- 3.15 This evidence on the potential scale of call traffic spoofing UK mobile numbers is broadly consistent with evidence of the magnitude of calls spoofing UK landlines before this latter route was blocked to scammers: BT Group has said that, when it started blocking landline calls spoofing UK Presentation Numbers at the international gateway, up to one million calls per day were prevented from entering their network in the first month after implementation.^{41 42 43} At an industry level, we consider it likely that criminals are making tens or even hundreds of millions of calls with spoofed UK mobile numbers each year.
- 3.16 Based on the overall evidence of the likely volumes of calls that enter UK networks with spoofed UK mobile numbers, we believe this is a significant source of potential harm and we consider that UK consumers are at a material risk from this practice. We expect that it is at least broadly comparable to the issue of UK landline number spoofing and we consider that it is very likely that at least some of the organised criminals that used to spoof UK landline numbers successfully have now shifted to spoofing UK mobile numbers.

³⁹ [3<] We note that these would be 2G/3G +447 calls, as network home routing-based traffic from abroad would be delivered by a data connection, rather than appearing as individual calls.

⁴⁰ In response to an information request sent to all UK MNOs, which sought estimates of the number of +447 calls entering their networks from outside the UK, as well as the number of calls made by their customers while roaming abroad, in order to understand the difference between these figures.

⁴¹ EE, 2022. '[EE takes a stand against scammers with latest international call-blocking technology](#)' <accessed 24 June 2025>.

⁴² In our November 2022 Statement, we noted that BT said that, after it implemented blocking of numbers without UK CLIs, it had received very few complaints of calls from abroad with UK CLI that had been blocked in error. See Ofcom, 2022. '[Statement: Improving the accuracy of Calling Line Identification \(CLI\) data](#)', paragraph 4.140.

⁴³ Note the BT's figure is in call numbers rather than call minutes.

The financial and emotional impact of fraud initiated on telecoms networks is substantial

- 3.17 Any successful scam can cause significant financial and emotional harm to a victim, while even attempted scams are annoying and can cause anxiety. Scams also impose costs on the wider economy, including the resources spent by businesses to support customers that fall victim to fraud and the loss of trust in telecoms services that can result.

The financial impact of fraud originating on telecoms networks is substantial

- 3.18 Fraud is a serious and widespread source of acute consumer and business harm. It accounted for an estimated 45% of all reported crime incidents in England and Wales in 2025.⁴⁴ UK Finance has reported that £1.28 billion was lost to fraud in that year.⁴⁵
- 3.19 UK Finance also estimates that APP fraud accounted for £576 million of the total in 2025, a substantial proportion of which was reimbursed by the financial service sector.⁴⁶ The Payment Systems Regulator (PSR) estimated that APP scams amounted to £340 million in 2023, based on evidence from the largest retail banking providers.⁴⁷
- 3.20 While online fraud, particularly fraudulent advertising, accounts for the majority of reported scam incidents by volume, scams originating on telecoms networks tend to have a proportionately greater financial impact. UK Finance reports that 17% of APP fraud cases were enabled by telecoms services in 2025, but that these accounted for 28% of APP fraud losses by value (around £160 million out of the total of £576 million). This may be because telecoms services can be used to impersonate trusted entities such as banks, enabling high-impact fraud.⁴⁸ Similarly, the PSR estimated that £107 million was lost to around 27,000 APP scams via fraudulent calls and text messages in 2023 (amounting to 31% of APP fraud losses by value).⁴⁹
- 3.21 The Communications Consumer Panel conducted research in 2020 that estimated a median loss of around £300 among victims of scam calls, with 28% of victims having lost more than £500.⁵⁰ However, the PSR's data imply a substantially higher loss, of around £4,000 per scam on average.⁵¹ One reason for the difference may be that some scams result in very large losses, raising the average. It is also possible that higher-value scams are more likely to be reported by victims and therefore reflected in the PSR's data.

⁴⁴ For year ending September 2025. National Crime Agency, 2026. [National Strategic Assessment](#) .

⁴⁵ UK Finance, 2026. [Annual Fraud Report 2026](#) , p.12 and p.6.

⁴⁶ UK Finance, 2026. [Annual Fraud Report 2026](#) , p.33.

⁴⁷ The PSR's estimate is based on data from the fourteen largest banks, while the more recent UK Finance figure is based on data from its c.300 members, who include the banks who provided data to the PSR. PSR, December 2024. [Unmasking how fraudsters target UK consumers in the digital age](#), pages 4, 27. UK Finance, 2026. [Annual Fraud Report 2026](#), pp.3-4.

⁴⁸ UK Finance, 2026. [Annual Fraud Report 2026](#) , p.34.

⁴⁹ PSR, December 2024. [Unmasking how fraudsters target UK consumers in the digital age](#), p.11.

⁵⁰ Communications Consumer Panel, December 2020. [Scammed! Exploited and afraid What more can be done to protect communications consumers from the harm caused by scams?](#), pages 4, 10. Hiya's research also indicates that 16% of UK consumers lost money to a phone scam in 2023 with an average loss of 798 USD, equivalent to approximately £600. Hiya, [State of The Call](#) 2024, p.7.

⁵¹ PSR, December 2024. [Unmasking how fraudsters target UK consumers in the digital age](#), p.11.

- 3.22 The PSR noted that telecoms services were particularly prominent in impersonation scams, where the scammer pretends to be someone known to the victim, or someone in a position of authority or trust, such as police and bank staff, and the victim is manipulated into sending their money to an account controlled by the scammer. In such cases the aim is often to clear the entire bank account of victims, so losses are particularly high. The PSR estimated that, of the £107 million lost to telecoms scams, around £58 million was lost to scams impersonating police and bank staff in 2023 over around 9,000 incidents, an average of around £6,500 per incident.⁵²

Table 3.1: Scale of financial harm from scams.

Type of scam	UK Finance (2025)	PSR (2023)
All	£1.28 billion	-
Authorised push payment (APP)	£576 million	£340 million
Telecoms-enabled APP	-	£107 million
Impersonation scams	£55 million	£58 million

- 3.23 We have also considered the number of telecoms-enabled scams that may have started with a telephone call in particular (rather than a mobile message). In the Crime Survey for England and Wales, the Office for National Statistics (ONS) reports on the “first method of contact with offender in incidents of fraud”.⁵³ In the latest year available (to March 2025), 39% of fraud cases that involved contact with the scammer⁵⁴ were started by telephone, which is greater than the proportion of such cases where first contact was online (32%).⁵⁵
- 3.24 Based on the UK Finance and PSR figures, combined with Crime Survey data on initial contact methods for scams, we estimate that approximately £200 million is lost to phone call-based scams per annum.⁵⁶ While we cannot say what proportion of this is attributable to calls from abroad with spoofed UK mobile numbers, given the scale of spoofing described above, we consider spoofed calls to be a significant element of call-based scam activity.

⁵² PSR, December 2024. [Unmasking how fraudsters target UK consumers in the digital age](#), p.19.

⁵³ ONS, 2025. [Nature of crime: fraud and computer misuse - year ending March 2025](#), Crime Survey for England and Wales, Table 6a.

⁵⁴ In the large majority of cases (79%) there was no direct contact.

⁵⁵ [Nature of crime: fraud and computer misuse](#), Crime Survey for England and Wales, Table 6a.

⁵⁶ UK Finance reports that APP scams account for around 45% of total losses from fraud. If we assume a similar ratio applies to voice and text scams in particular, we can scale up PSR’s reported losses of £107m from voice and text APP scams, to reach an illustrative estimate of total losses from APP and unauthorised scams of around £240m. To isolate total losses from scam messages, we use the ratio of scams originating from calls versus text messages from the Crime Survey for England and Wales (we have used this ratio relating to England and Wales as a proxy for the UK, as we do not have data for Scotland and Northern Ireland). In the past three surveys, call scams were larger than text messages by a factor ranging from three to ten. Applying the average ratio from these 3 years to the £240m figure gives us an estimate of around £50m lost to messaging scams and £200m lost to call scams per year.

- 3.25 The ONS estimates that only 11% of cases of bank and credit card fraud are being reported to Action Fraud or the police by victims.⁵⁷ We therefore consider that the overall financial harm from fraud is likely to be larger than the figures reported in this section. However, we do not have sufficient evidence to estimate by how much and it is possible that fraud involving larger sums are more likely to be reported.
- 3.26 The financial costs of scams are larger than the sums stolen by scammers. Mobile network operators also bear costs relating to scam traffic, due to the need for additional customer support. Scam calls also consume bandwidth and resources.
- 3.27 Telecoms scams also have broader implications for the economy and society. Financial institutions incur substantial costs when reimbursing victims and investigating fraudulent activity. Public services, including law enforcement, need to support affected individuals and to tackle criminal networks. Widespread exposure to scams may erode trust in digital communications, making people more hesitant to engage with legitimate mobile services or online platforms and transactions. This reluctance can affect the reputations and operations of trusted organisations that scammers impersonate. In addition, firms may incur costs of investigating and resolving complaints relating to scams.
- 3.28 Respondents to our consultation generally agreed with our assessment of harms from spoofing of UK mobile numbers.⁵⁸ VodafoneThree, for example, said that “UK consumers are at a risk from voice scams that are facilitated by UK mobile number spoofing of 2G/3G inbound roaming calls”.⁵⁹ Virgin Media O2 noted that, while it is “difficult to accurately assess the harm experienced by consumers linked specifically to the spoofing of UK mobile numbers from abroad”, it nonetheless agreed that “this particular issue may lead to significant harm if left unchecked”.⁶⁰
- 3.29 Some respondents to our 2025 consultation commented on the evidence base that we used to assess the scale of the issue and the harms associated with spoofed UK mobile numbers:
- BT said that we should have been clearer that there is no definitive evidence base to assess mobile spoofing scams originating outside the UK and that the proxies available had limited analytical value.⁶¹
 - Tata Communications commented that our assessment of harms was based on limited direct or empirical evidence of harms.⁶²
- 3.30 We recognise that the available evidence does not allow us to estimate the harm from scams initiated by calls from spoofed UK mobile numbers directly. However, as noted in paragraph 3.10 above, one MNO has provided evidence suggesting that a large majority of calls with UK mobile CLIs it was receiving were likely to be spoofed. If this is representative across industry, it could amount to tens or even hundreds of millions of spoofed calls in a year. As noted above, Crime Survey data indicates that the phone is one of the two most

⁵⁷ Office for National Statistics, 2024. [Crime in England and Wales: Annual Trend and Demographic Tables - Office for National Statistics](#), Table D10, Cell Z53. UK Finance members have a Banking Protocol rapid response scheme which includes notifying the police of suspected scams (UK Finance, 2026. [Annual Fraud Report 2026](#), p.8) so we expect that the scams it reports are only those reported to the police.

⁵⁸ These also included responses from [iconectiv](#) UK (p.2), [Name Withheld 1](#) (p.2), [Name Withheld 3](#) (p.2), [§<], [§<], [Magrathea](#) (p.1), [NICC Standards Ltd](#) (p.2), [UKCTA](#) (p.2), [XConnect](#) (p.1), [Which?](#) (p.2), and [PXC](#) (p.4).

⁵⁹ [VodafoneThree response](#) to the 2025 Consultation, p.2.

⁶⁰ [Virgin Media O2 response](#) to the 2025 Consultation, p. 2-3.

⁶¹ [BT response](#) to the 2025 Consultation, p.6.

⁶² [Tata Communications response](#) to the 2025 Consultation, p.1.

common ways of contacting scam victims (along with online services). Taken in the round, we consider the evidence indicates that mobile spoofing is an important element of telecoms-enabled scam activity, which results in substantial financial and non-financial impact on UK consumers and businesses.

Scam calls have a significant non-financial impact on UK consumers and businesses

- 3.31 Direct financial losses can also have knock-on impacts: for example, victims may lose some or all of their savings, go into debt, or lack money for essentials.⁶³ Consumers who fall victim to a scam may also face significant inconvenience, including having to report the crime and seek compensation.
- 3.32 Scams may also have a very significant emotional impact on victims. A 2025 Home Office report found, for example, that victims of fraud may experience a wide range of emotional harms, such as anger, stress and anxiety. While rarer, some victims may also experience serious health harms, including suicidal thoughts and self-harm. In addition, female and ethnic minority victims are significantly more likely to experience some types of emotional and health harms compared to males and people from a non-ethnic minority background, respectively.⁶⁴
- 3.33 While it is not possible to quantify the non-financial impact of scams initiated through calls that spoof UK mobile numbers, we believe that it is reasonable to expect that the emotional impact on victims is likely to be significant, in line with the impact of fraud and scam calls more broadly. Scam calls, even when unsuccessful, waste recipients' time and can cause them to feel anxious. The experience of attempted scams also undermines consumer trust in telecoms services.
- 3.34 Which? broadly agreed with our harms assessment, but also noted its own research findings⁶⁵ that being a victim of a scam is associated with significantly lower life satisfaction and higher anxiety. Which? also noted a report by the Social Market Foundation⁶⁶ that indicated that some scam victims reported a negative impact on their physical health.
- 3.35 A number of respondents observed that harms were potentially high for people in more vulnerable circumstances, such as older people or less digitally confident users, who may be disproportionately more likely to be targeted by scammers.⁶⁷
- 3.36 We consider that these responses support our view that telecoms-enabled scams such as mobile number spoofing give rise to significant harm.

⁶³ Communications Consumer Panel, December 2020. [Scammed! Exploited and afraid: What more can be done to protect communications consumers from the harm caused by scams?](#), pp.11–13.

⁶⁴ Home Office, [Experiences of victims of fraud and cyber crime](#), Section 3.1.

⁶⁵ Which?, 2023. [Scams and Subjective Wellbeing](#).

⁶⁶ Social Market Foundation, 2023. [The view from the ground: Building a greater understanding of the impact of fraud and how the public view what policymakers should do about it](#).

⁶⁷ For example, [iconectiv](#) UK (p.7), [Name Withheld 1](#) (p.2).

People and businesses are at risk without new regulatory protections

- 3.37 We note in section 2 that our most recent CLI Guidance sets out how providers should process calls that reach UK networks from abroad that display a UK Presentation Number. This can include blocking the call. However, there has previously been a gap in our guidance, because it exempts calls with +447 Presentation Numbers entering UK networks from checks, given the technical challenge of distinguishing between legitimate UK mobile users roaming abroad and spoofed UK mobile numbers. As a result, scammers can exploit this gap to reach people and businesses with calls that spoof UK mobile numbers.
- 3.38 In theory, providers may be able to identify calls from abroad that spoof UK mobile numbers, including calls from 2G and 3G networks and fixed lines. Although there are a number of potential solutions, there is currently no agreed industry process for checking calls where no home routing agreement is in place between the home and roaming partner network.
- 3.39 In the absence of any intervention, we can expect the problem of UK mobile spoofing to persist, as long as scammers can make calls to people and businesses in the UK that no party will verify before they reach the call recipient. As set out in section 2, although a growing number of roaming calls are made over network home routing, which is inherently more secure than 2G and 3G networks, 2G and 3G networks will continue to operate around the world for the foreseeable future. Network home routing-based roaming is unlikely to be globally ubiquitous for UK mobile users for some time. This means that, in the short to medium term, many 2G and 3G calls entering the UK with +447 Presentation Numbers will be routed to their destination without any means of verifying the Presentation Number. These could include scam calls. Scammers can also avoid checks on calls from fixed lines that enter UK networks through this channel.
- 3.40 Even if we expect that rapid global deployment of network home routing-based roaming will continue in coming years, and if in future the vast majority of inbound calls by volume from UK mobile users roaming abroad are made over network home routing (and therefore could be verified as legitimate), scammers could still exploit any channel kept open for calls that are not made over network home routing, as long as this channel exists.
- 3.41 Therefore, as we set out in our 2025 consultation, we consider that existing protections from regulation and other industry measures are not sufficient to meet our policy objective and that new regulatory protections are required.
- 3.42 Respondents to our consultation generally agreed that it would be appropriate to intervene to reduce opportunities for scammers to spoof UK mobile numbers:
- VodafoneThree said that “it is appropriate to introduce further regulation to address this loophole which scammers could otherwise continue to exploit”.⁶⁸
 - iconectiv UK (a provider of telecoms infrastructure solutions) agreed that the exemption for +447 numbers in our CLI Guidance had created a loophole which

⁶⁸ [Vodafone Three response](#) to the 2025 Consultation, p.3.

scammers can exploit. It agreed that “without regulatory intervention, consumer harm will persist”.⁶⁹

- PlatformX Communications (PXC) (which operates TalkTalk’s wholesale connectivity services) said that addressing this issue would be appropriate, given the risks scam calls pose to vulnerable end-users.⁷⁰

3.43 In the following section, we set out our decision to introduce measures to address this issue.

⁶⁹ [iconectiv UK response](#) to the 2025 Consultation, p.3.

⁷⁰ [PXC response](#) to the 2025 Consultation, p.4.

4. Our assessment and decisions

Purpose of this section

- 4.1 In section 2, we set out our policy objective of significantly reducing the likelihood that scammers operating outside the UK can successfully reach UK consumers with calls displaying spoofed UK mobile numbers. In section 3, we described the harm that results from scam calls from abroad that spoof UK mobile numbers and we set out our view that further regulatory intervention is necessary to address this harm.
- 4.2 In this section, we analyse and conclude on the measures that we are introducing to address the harm from scam calls that spoof UK mobile numbers and to meet our policy objective, taking into account the responses to our 2025 consultation.⁷¹
- 4.3 Below, we set out:
- Our proposals in our 2025 consultation (paragraphs 4.4-4.12).
 - Our assessment of alternative measures to achieve our objective (paragraphs 4.13-4.29).
 - Our assessment of our ‘Part A’ measure: modifying UK mobile Presentation Numbers to mark them as withheld (paragraphs 4.30-4.70).
 - Our assessment of our ‘Part B’ measure: home routing (supported by CAMEL standards) (paragraphs 4.71-4.86).
 - Our final decision on introducing new measures (paragraphs 4.87-4.91).
 - The implications of our decision for Crown Dependencies (paragraphs 4.92-4.94).
 - Our assessment of the implementation period for introducing new measures and our final decision (paragraphs 4.95-4.102).

Our consultation proposals and the alternative solutions we considered

- 4.4 In our 2025 consultation, we explained that we had considered a range of potential remedies to achieve our policy objective and to address the harms we have identified.

We proposed a two-step ‘number withheld and restored’ process

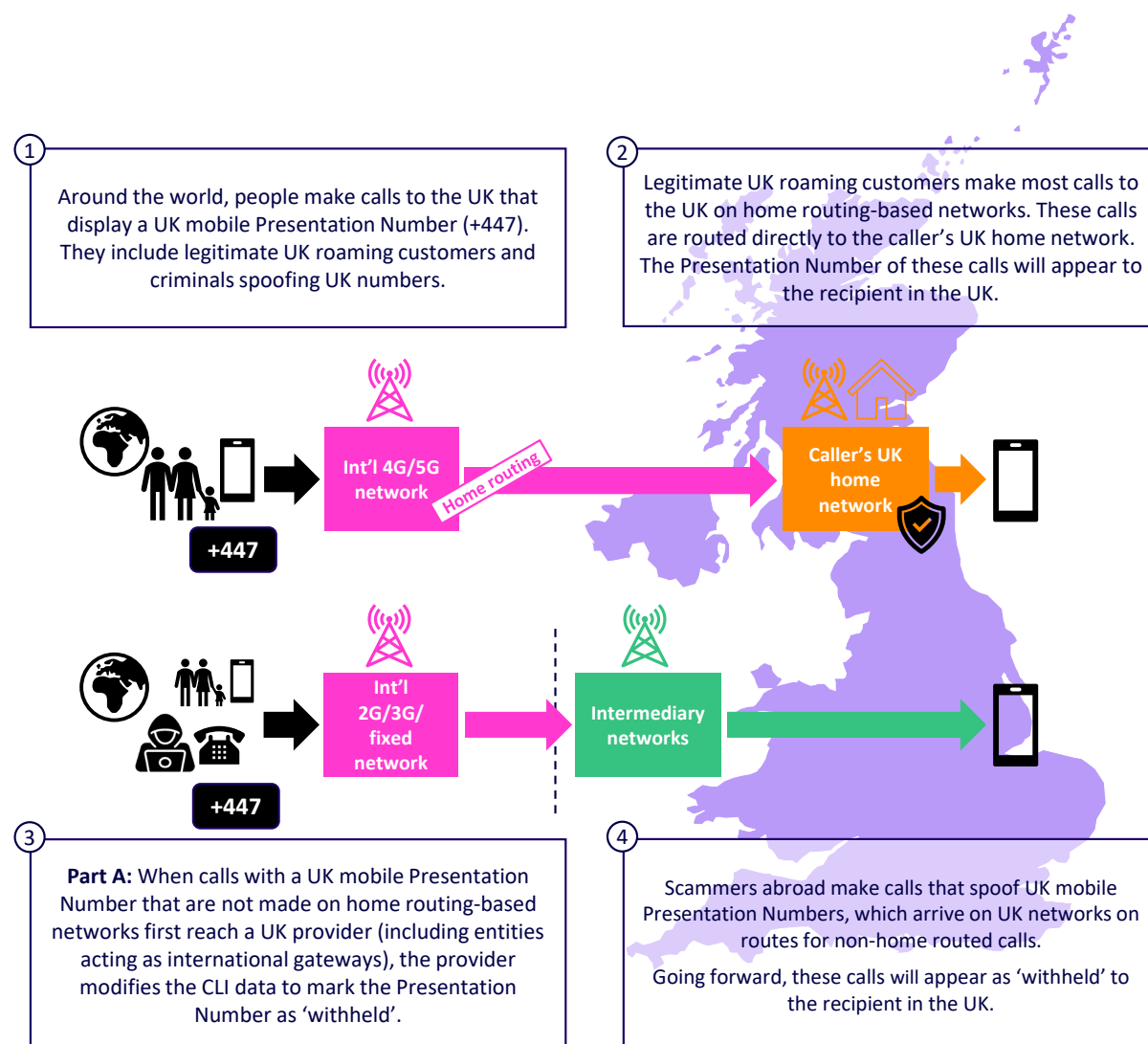
- 4.5 We proposed to amend our CLI Guidance to set out how we expected providers to apply a two-step ‘number withheld and restored’ process to calls from abroad that appeared to come from UK mobile (+447) numbers and that do not come over a direct route that enables verification (for example, calls made over the majority of home routing-based networks).

⁷¹ We received 19 responses to our 2025 consultation, which we consider in this section. Non-confidential responses are available on our [website](#).

- 4.6 The amendments, which we have labelled ‘Part A’ and ‘Part B’ for ease of reference in this publication, were as follows:
- **Part A (modifying +447 Presentation Numbers to mark them as withheld):** when calls with a +447 Presentation Number first reached a UK provider (including entities acting as international gateways), the provider would modify the call’s CLI data to mark the Presentation Number as withheld.⁷² We noted that we did not consider that calls that enter the UK via a direct route (for example, calls made over the majority of VoLTE networks), and which can be verified, were likely to come within the scope of Part A.
 - **Part B (home routing (supported by CAMEL standards)):** UK providers would have arrangements in place with their roaming partner networks so that calls to the UK, made by UK roaming customers, would be routed via the customer’s home network. After the call’s Presentation Number had been marked as withheld on entry to UK networks under Part A, the home network would then modify the CLI data of calls from customers who were genuinely roaming abroad, where technically feasible (and unless the caller had elected to withhold their number), so that the call recipient could see who was calling them.
- 4.7 The first part of this two-step process (referred to in this publication as ‘Part A’) was designed to remove the ability of scammers abroad to reach people and businesses in the UK with calls that display spoofed +447 Presentation Numbers. This is because:
- UK providers that are the first point of ingress to UK networks, including entities acting as international gateway providers, would modify the CLI data of all calls with +447 Presentation Numbers as they enter UK networks, marking (or ‘flagging’) the Presentation Number as withheld.
 - When the call was routed on, providers would only modify the CLI data again to remove the withheld flag and show the Presentation Number to the recipient if the call had been checked and confirmed to be from a genuine UK user roaming abroad (for example, where calls were home routed by prior agreement).
 - Spoofed calls would therefore appear to the recipient as withheld, because there would be no ‘home network’ to check their roaming status.
- 4.8 In our consultation, we said that we expected the effect of Part A would be that people and businesses in the UK would receive significantly fewer calls from scammers that appeared to come from UK mobile users. In turn, this would reduce the likelihood that people engage with scam calls and lose money.

⁷² This is one of a very limited number of messages that can be displayed. It would be challenging to require, for example, that spoofed numbers show as e.g. ‘suspicious call’ or ‘potential scam’. This is for technical reasons related to variances between devices and signalling.

Figure 3: Illustration of the effect of Part A: requiring UK providers to mark the Presentation Number of calls with UK mobile Presentation Numbers as withheld



- 4.9 We intended the second part of the proposals (referred to in this publication as 'Part B') to ensure that as many legitimate calls as possible (i.e. calls from genuine UK mobile users roaming abroad) would reach the recipient with the CLI Presentation Number displayed, rather than showing as withheld. It would have achieved this by clarifying our expectation that providers should put home routing arrangements in place (supported by CAMEL standards), where technically feasible, so that they could perform appropriate 'is-roaming' checks on calls that came under the scope of Part A, and restore their CLI Presentation Number by removing the withheld flag from the CLI data. Part B would minimise any adverse potential impact of Part A on both UK roaming customers and the recipients of their calls, because under this part of the proposals call recipients would see the caller's number (or their name, if saved as a contact), rather than a withheld label.
- 4.10 Respondents to our consultation generally agreed with Part A of our proposal, except a number of providers that offer VoIP/OTT voice services that display +447 Presentation Numbers, which raised concerns about its impact (we discuss these below). However, while some respondents supported Part B, others such as BT and VodafoneThree raised concerns about the difficulty and cost of setting up home routing arrangements (supported by CAMEL standards) with their international roaming partners and said that the benefits of

Part B would be limited, in a context where providers are increasingly adopting network home routing-based roaming. We set out a summary of responses to the consultation, and our assessment, later in this section.

- 4.11 As a consequence of our assessment of consultation responses and further evidence-gathering, we have decided to implement Part A of our proposals, but not Part B.
- 4.12 In Annex 1, we set out the specific changes that we have made to our CLI Guidance.

We considered alternative solutions to our proposals, including proactive checks by international gateway providers and blocking calls that cannot be verified

- 4.13 The other remedies that we considered in our consultation were:
- **Requiring international gateway providers to undertake proactive checks:** we explored options that would expect international gateway providers to undertake proactive checks on calls with +447 Presentation Numbers. These could include: solutions in which the international gateway provider checks directly with a caller's home mobile network to see if a call is from a legitimate user who is roaming; solutions in which the provider interfaces with a third-party intermediary ('proxy'), which would perform these checks on the provider's behalf; and solutions in which the provider queries database of roaming users, updated in real time, to perform these checks.
 - **Expecting providers to block non-valid calls with +447 Presentation Numbers:** we also considered whether it would be appropriate to expect international gateway operators to block calls that could not be verified, either where they fail proactive checks or where the destination number does not match a predefined 'allowlist' of numbers associated with UK networks.
- 4.14 We judged that these approaches would be more onerous than is necessary to meet our policy objective and, in the case of call blocking, could risk blocking legitimate calls from UK users roaming abroad and calling back to the UK.
- 4.15 In the following paragraphs, we review the alternative solutions we considered in the light of responses to our 2025 consultation, before setting out our assessment of our consultation proposals.

Assessment of alternative measures to achieve our objective

- 4.16 In response to our consultation, some stakeholders expressed support for the other potential remedies that we had considered.
- 4.17 However, we have decided not to implement these options at this time, consistent with our position in the 2025 consultation, for the reasons set out below.

Responses to our consultation and our assessment of alternative measures to our proposals

Requiring international gateway providers to undertake proactive checks

- 4.18 As set out above, under this option, the international gateway provider would undertake some form of proactive check on calls entering the UK with +447 Presentation Numbers. This could be a direct ‘is-roaming’ check with the mobile network associated with the number, interfacing with a proxy that would undertake these checks on the provider’s behalf or querying a live database of roaming callers that is updated in real time.
- 4.19 In its response, XConnect stated that a long tail of UK mobile operators’ international roaming partners will continue to use 2G and 3G connections into the future and that network home routing-based roaming (for example, 4G and 5G connections) is “not a relevant technology in terms of providing a ubiquitous technology to address scam calling”. It stated that Ofcom must ensure that all roaming calls are validated and supported, and recommended requiring providers to adopt an ‘is-roaming’ proxy database, which providers could query, alongside a CAMEL-based home routing requirement.⁷³
- 4.20 As we noted in our 2024 call for input and our 2025 consultation, solutions that require proactive checks by international gateway providers could introduce signalling delays and errors, as well as privacy and security risks. Direct gateway roaming queries could require multiple hops for queries in real time because, in the UK, it is possible for customers to port numbers from one provider to another. We also consider that proxy solutions, which attempt to address these potential signalling delays, including with a live database, would be likely to introduce disproportionate cost and complexity, and would be slower to implement, than the measures we proposed.
- 4.21 Mandating a proxy solution would also require additional resources to guarantee security and oversight of any database that acted as a central repository listing all UK customers currently roaming abroad. If industry were to adopt a proprietary solution, this resourcing would need to include transparent, independent governance structures and procedures to ensure accountability.^{74 75}
- 4.22 At the same time, while 2G and 3G will continue to operate around the world for the foreseeable future and network home routing-based roaming is unlikely to be globally ubiquitous for UK roaming customers for some time, we expect that the number of calls that UK roaming customers abroad make to the UK that originate on 2G and 3G connections will nonetheless fall. The benefits of mandating either direct checking or proxy solutions to check calls made over 2G and 3G will therefore continue to decline, relative to the costs and risks of implementing these options.
- 4.23 Taking into account the responses to our consultation, at this time we do not consider that requiring international gateway providers to implement solutions that involve proactive checks, including proxy solutions, would achieve our objective in a targeted and proportionate way.

⁷³ [XConnect response](#) to the 2025 Consultation, pp.2-4.

⁷⁴ Ofcom, 2024. [Reducing scam calls from abroad which spoof UK mobile numbers](#), pp.17-21.

⁷⁵ Ofcom, 2025. [Tackling scam calls from abroad](#), p.26.

Blocking non-valid calls

- 4.24 In our 2025 consultation, we noted that requiring providers to block non-valid calls would likely be more onerous to implement and maintain than the options we proposed (Part A and Part B), in part because international gateway providers would need to make other checks to support blocking. We also noted that any option that required blocking of calls from UK mobile numbers entering UK networks could risk blocking legitimate calls from genuine UK roaming customers.⁷⁶
- 4.25 In section 2, we explained why it is technically challenging for providers to differentiate between legitimate calls displaying UK mobile numbers from UK customers roaming abroad and calls that spoof UK mobile numbers. We also set out above why applying ‘in-roaming’ checks on the validity of all calls that enter UK networks from abroad would pose challenges.
- 4.26 Which? disagreed that blocking calls from abroad that spoof UK mobile numbers would be too onerous (while agreeing that there were technical barriers). It noted that we had not provided a cost estimate as part of our assessment of this option. It requested a more detailed consideration of the costs and benefits of blocking non-valid calls.⁷⁷
- 4.27 We recognise that blocking unverified inbound calls that present UK mobile numbers could be an effective means to stop scam calls from abroad and prevent harm from scams. However, we consider that implementing this measure would not be proportionate, at this time, given its complexity and potential unintended consequences. Legitimate UK roaming customers still rely on 2G and 3G connections in some circumstances and responses highlighted the technical and operational difficulty of distinguishing those calls from spoofed traffic reliably, without risking disruption to genuine users. Given the limited stakeholder support for mandatory blocking and the greater complexity of seeking to implement this measure by comparison with our proposals, we consider that marking calls as withheld, unless they can be verified, strikes a more appropriate balance, while leaving scope to revisit this issue as roaming technologies and traffic patterns change in future.
- 4.28 Therefore, we believe that it would not be appropriate, at this time, to expect providers to comply with GC6.6 in relation to calls from abroad displaying UK mobile Presentation Numbers by blocking the calls. This is because of the technical challenges and the material risk that providers could inadvertently block calls from genuine UK roaming customers.
- 4.29 By contrast, Part A of our proposed approach does not impose comparable risks of blocking legitimate calls, nor comparable costs or technical challenges.

Assessment of Part A: modifying UK mobile Presentation Numbers to mark them as withheld

- 4.30 As set out above, Part A of our proposals was that, when calls with a +447 Presentation Number first reach a UK provider (including entities acting as international gateways), the provider should modify the call’s CLI data to mark the Presentation Number as withheld.
- 4.31 As we have decided not to implement Part B of our proposal, we assess the benefits, costs and potential limitations of Part A without Part B below. We then assess the implications of

⁷⁶ Ofcom, 2025. [Tackling scam calls from abroad](#), p.26.

⁷⁷ [Which? response](#) to the 2025 Consultation, pp.5-6.

our decision not to implement Part B for our decision to implement Part A, our assessment of Part B and our final decision.

Responses to our consultation and our assessment

Benefits of Part A

- 4.32 In our 2025 consultation, we set out that our proposals would remove the ability of scammers outside the UK to reach people in the UK with calls that appear to come from UK mobile Presentation Numbers, because spoof calls would appear to recipients as having a withheld number.
- 4.33 In our consultation, we said that removing the ability of scammers to spoof UK mobile numbers in this way was likely to make people and businesses in the UK less vulnerable to scam calls. Scammers would not be able to use spoofing to assume the appearance of legitimacy that a UK mobile number can convey.

Evidence from consumer research shows that people are less likely to answer withheld numbers than UK mobile numbers that they do not recognise

- 4.34 As set out in section 2, our research shows that 17% of UK mobile and/or landline users were likely or very likely to pick up calls from withheld numbers. By comparison, a larger proportion (24%) were likely to do so from unrecognised UK mobile numbers.
- 4.35 Similarly, 62% of UK mobile and/or landline users were unlikely or very unlikely to pick up calls from withheld numbers. By comparison, 53% were unlikely or very unlikely to do so from unrecognised UK mobile numbers.⁷⁸
- 4.36 Based on this survey evidence, we consider that phone users are more likely to be suspicious of calls from withheld numbers. In addition, we expect that people will not only be less likely to answer scam calls if they appear as withheld, but also more cautious when they do answer and less inclined to believe that the caller is a legitimate UK caller, by comparison with when they answer scam calls that appear to come from UK mobile numbers. Therefore, we expect that, under Part A, consumers will be less vulnerable to scammers' tactics of appearing to call as a UK mobile user.

A majority of responses to the consultation supported the implementation of Part A

- 4.37 Our 2025 consultation assessed the benefits of our proposals (Part A and Part B) as a whole. However, the effect of the proposals in preventing scammers from spoofing UK mobile numbers is specific to Part A. A number of stakeholders commented on this aspect of our proposals explicitly, with the majority in broad support of our view of the benefits it would deliver:
- Virgin Media O2 agreed with our assessment that calls marked withheld may mean consumers can more easily spot scam calls, would be more cautious when answering withheld calls, or may choose to not answer these calls at all.⁷⁹
 - VodafoneThree agreed with our view that, if no CLI is displayed on spoofed calls, this would remove the scammers' motivation to spoof CLI.⁸⁰

⁷⁸ Ofcom, 2026. [Experiences of suspicious calls, texts and app messages](#), Q12.

⁷⁹ [Virgin Media O2 response](#) to the 2025 Consultation, p.3.

⁸⁰ [VodafoneThree response](#) to the 2025 Consultation, p.3.

- BT stated that “CLI withheld at point of ingress into UK networks for 2G/3G inbound traffic might be appropriate in some circumstances and that this can be done at a relatively low cost”.⁸¹
- The UK Competitive Telecommunications Association (UKCTA) described Part A as “a basic step that all international gateway providers should be able to quickly implement [that] will help discerning consumers vet incoming calls”.⁸²

Implementation of Part A will achieve our policy objective

- 4.38 We continue to consider that implementing Part A of our proposals will remove the ability of scammers outside the UK to spoof UK mobile Presentation Numbers, because all such calls that reach UK networks will appear to recipients as having a withheld number. We therefore consider that Part A is an effective way to meet our policy objective of significantly reducing the likelihood that scammers operating outside the UK can successfully reach UK consumers with calls displaying spoofed UK mobile numbers. While it will not stop scammers operating abroad from calling people and businesses in the UK, it will significantly reduce opportunities for scammers to use spoofing to assume the appearance of legitimacy that a UK mobile number can convey.
- 4.39 We set out in our 2025 consultation that, if our proposed measures made UK consumers materially less vulnerable to scam calls, this could potentially reduce financial harm by millions or tens of millions of pounds and reduce the associated inconvenience and emotional distress that scams create. We consider that implementation of Part A will help to reduce harm to UK consumers because, as we have described, it will decrease the likelihood that people and businesses in the UK will answer and engage with scam calls.
- 4.40 We also expect that consumers will benefit from Part A reinforcing trust in calls from UK mobile numbers.

Costs and potential limitations of Part A

We consider that the cost of implementing Part A is likely to be low

- 4.41 In our 2025 consultation, we assessed the costs of implementing Part A and Part B together and set out our view that the costs of our proposals were likely to be low.
- 4.42 Several responses to our consultation supported our view that Part A would be low-cost and that providers could implement it quickly:
- VodafoneThree said that “international gateways marking calls as ‘number withheld’ [...] is the best way to protect UK citizens from spoofed mobile calls, both from a cost and a time-to-deliver perspective”.⁸³
 - As noted above, BT stated that providers could implement Part A at relatively low cost.⁸⁴
 - iconectiv UK said that “the technical requirement for gateways to modify CLI presentation is straightforward”. It agreed with our assessment that “the benefits of the proposed remedy significantly outweigh the anticipated costs”.⁸⁵

⁸¹ [BT response](#) to the 2025 Consultation, p.8.

⁸² [UKCTA response](#) to the 2025 Consultation, p.3.

⁸³ [Vodafone Three response](#) to the 2025 Consultation, p.3.

⁸⁴ [BT response](#) to the 2025 Consultation, p.8.

⁸⁵ [iconectiv UK response](#) to the 2025 Consultation, p.3.

- 4.43 In light of consultation responses, we remain of the view that the implementation cost of Part A of our proposals is likely to be low.

Network home routing-based roaming is unlikely to prevent scammers from spoofing UK mobile numbers in the short to medium term

- 4.44 Some respondents argued that the implementation of Part A would be disproportionate because network home routing rollout will solve the issue of spoofed UK mobile numbers. BT, for example, said that global rollout of network home routing-based roaming would be the most “practical solution” to reduce the scale of mobile spoofing from abroad.⁸⁶ While Virgin Media O2 broadly agreed that the proposal “would be effective in meeting its aims”, it also said that the problem of mobile spoofing would become less significant as more providers adopt network home routing-based roaming.⁸⁷
- 4.45 However, as we noted in section 3 and earlier in this section, 2G and 3G will continue to operate around the world for the foreseeable future and network home routing-based roaming is unlikely to be globally ubiquitous for UK mobile users for some time. This means that, while scammers are able to spoof UK mobile numbers through at least one route into UK networks, they are likely to take advantage of that channel for as long as it exists. We believe that this should be addressed to ensure that scammers find it harder to exploit this channel, and to address the harms which we have already set out.

Respondents noted some potential limitations of Part A

- 4.46 Some responses to our consultation said that Part A had limitations as a remedy.

Quality of experience

- 4.47 Some respondents said that marking +447 Presentation Numbers as withheld could diminish quality of experience for some customers and call recipients:
- UKCTA considered that marking the CLI of genuine UK roaming customers abroad making calls to the UK over a 2G or 3G connection as withheld could be frustrating to those customers. It agreed that “this inconvenience is preferable by an order of magnitude to the current situation” but said that these changes must be explained clearly to the public.⁸⁸
 - Some responses to our consultation also noted that, under our proposals, anonymous call reject services, which some providers offer to their customers, could block legitimate calls from users roaming abroad because the number had been marked as withheld. BT, for example, said that, in situations where customers have added services that filter out calls with the CLI withheld, the proposals could adversely impact these users’ experiences.⁸⁹
- 4.48 We recognise that there may be a number of UK mobile users roaming abroad whose calls back to the UK fall within scope of Part A, are not already home routed (and therefore cannot be checked and have the CLI restored by their home network) and which subsequently appear to the recipient as withheld.
- 4.49 We also note that this volume of calls is likely to continue to diminish over time as global network home routing-based roaming is rolled out further. In practice, we also expect that

⁸⁶ [BT response](#) to the 2025 Consultation, pp.2-3.

⁸⁷ [Virgin Media O2 response](#) to the 2025 Consultation, p.3.

⁸⁸ [UKCTA response](#) to the 2025 Consultation, p.3.

⁸⁹ [BT response](#) to the 2025 Consultation, p.4.

UK roaming customers will use a range of alternative means of communication if they experience any inconvenience from appearing as withheld numbers or from their call being blocked by an anonymous call reject service. This could include using mobile messaging, online messaging apps or number-independent OTT voice services.⁹⁰

- 4.50 We address the potential issue of genuine calls from abroad appearing as withheld to the recipient in more detail later in this section.

Risk that people may put undue trust in calls from UK mobile Presentation Numbers and will need to decide whether to pick up withheld calls

- 4.51 Some respondents said that our proposals could result in changes to the perception of withheld numbers, which could introduce unintended consequences:
- The Communications Council UK (CCUK) (a telecoms trade body) said that the proposals may have the unintended consequence of encouraging a false sense of security from scams among phone users, because they may by default increasingly trust visible UK mobile Presentation Numbers.⁹¹
 - PXC stated the proposals placed the onus for disrupting fraud onto the consumer, as a call recipient would need to decide whether to answer a call flagged as withheld or to ignore a potentially legitimate call.⁹²
- 4.52 We recognise there is some risk that UK phone users may place more trust in calls from UK mobile numbers than is warranted, given the risk of scam calls. Scam calls from genuine UK numbers (for example, where a legitimate number associated with a UK SIM is used as part of a SIM farm operation), which the scammer might use temporarily and discard, risk harm to people and businesses. We expect Part A to lessen harm to people from scam calls in the round, while we agree that it is important that phone users continue to understand the potential threat from scam calls from UK mobile numbers.
- 4.53 We also recognise that Part A will not prevent UK phone users from receiving scam calls from abroad in future, although they should not receive calls from abroad from spoofed UK mobile numbers. They will need to continue to exercise their judgement and be vigilant when answering calls from withheld numbers or from UK mobile numbers that they do not recognise. We are mindful that legitimate calls also come from withheld numbers: for example, from health services seeking to protect the privacy of the call recipient.
- 4.54 Whether to accept a call from a withheld or unrecognised number is ultimately a decision for the call recipient, but in our view the most effective way of both meeting our objective and reducing harm from scam calls is to ensure that scam calls from abroad appear as withheld, rather than as from UK mobile Presentation Numbers.

⁹⁰ Paragraph 3.6 of our CLI Guidance states that: “Where a called end user has selected to use Anonymous Call Reject, in accordance with paragraph 4.3(b), the calling end user should be advised as to why the call has been rejected, for example a recorded announcement with an explanation that the call was rejected because they restricted their CLI. This notification should be provided free of charge to the calling end user.” We do not expect that our changes will come under the scope of this expectation because the calling party would not be proactively restricting their CLI.

⁹¹ [CCUK response](#) to the 2025 Consultation, pages 1 & 4.

⁹² [PXC response](#) to the 2025 Consultation, p.4.

Scam calls and vulnerable users

- 4.55 Some respondents noted that the remedy could offer fewer benefits to people who may be more likely to answer calls from withheld numbers.
- 4.56 Which? said that the segment of the population that is likely to answer a call from a withheld number (17% of landline/mobile users in our most recent survey⁹³) was unlikely to benefit from our remedy. It suggested that we should investigate whether this segment is composed of a disproportionately higher number of vulnerable people. It suggested that, if there is a correlation between willingness to answer calls marked as withheld and vulnerability, then the remedy could have an adverse impact on this group.⁹⁴
- 4.57 We see no evidence in our consumer research data to suggest that mobile and/or landline users who were likely to answer withheld calls were disproportionately vulnerable. Among mobile and/or landline users who were likely to answer withheld calls, the proportion of respondents with characteristics that could potentially make them more vulnerable was similar to the proportion of mobile and/or landline users overall with such characteristics .
- 4.58 We consider that UK phone users who are likely to answer calls from withheld numbers will also benefit from these measures. As set out above, we are mindful that important, legitimate calls can come from withheld numbers. Whether to accept a call from a withheld or unrecognised number is a decision for the call recipient and we do not intend to discourage people from answering withheld calls in all circumstances, which could have unintended negative consequences for them. However, we expect that preventing scammers from spoofing UK mobile numbers and limiting scammers to reaching people with calls from withheld numbers will both reduce the volume of scam calls that people receive and also the likelihood that recipients have misplaced confidence in the calls, whether or not they choose to answer them.⁹⁵

Implementation challenges for VoIP/OTT voice services

- 4.59 Finally, some stakeholders considered that our proposals could be challenging for providers of VoIP/OTT voice services to implement. This is because calls from virtual UK mobile numbers that originate abroad could fall under the scope of Part A when they reach a UK provider:
- The UKCTA stated that 07 mobile numbers are “used by technologies beyond mainstream mobile networks” and that the proposals did not consider whether or how providers should apply the proposals to virtual and cloud mobile services. It said that the proposals could result in “CLI being permanently withheld on all calls originating outside of the UK” when these are made, for example, over virtual and cloud mobile services.⁹⁶

⁹³ Ofcom, 2026. [Experiences of suspicious calls, texts and app messages](#), Q12.

⁹⁴ [Which? response](#) to the 2025 Consultation, pp.6-8.

⁹⁵ A reduced likelihood that recipients answer or trust a caller from a withheld number may have a particularly positive impact on groups of persons that may be more susceptible to scam messages by reducing the likelihood that they may fall victim to scams. For example, there is evidence that female and ethnic minority victims are significantly more likely to experience some types of emotional and health harms associated with fraud and cybercrime compared to males and non-ethnic minority people, respectively. Any reduction in these types of harms from our decision would therefore have a particularly positive impact on these groups. See also our equality impact assessment in Annex 3.

⁹⁶ [UKCTA response](#) to the 2025 Consultation, pp.2-3.

- The Federation of Communication Services (FCS) expressed concern that the proposals focused on traditionally-routed calls and would not capture new technology and OTT voice services. It said that the proposals might not apply to all relevant calls entering the UK, as some calls (e.g. from cloud-based services) might arrive by other routes.⁹⁷
 - CCUK stated that calls that use +447 numbers and that originate from non-mobile or virtual sources cannot be authenticated in the same way as calls from devices made on mobile networks. It also considered that, under the proposed approach, these might permanently appear as withheld to the recipient. It argued more broadly that the proposals would impact UK providers negatively.⁹⁸
 - Magrathea also noted potential challenges to authenticating calls from virtual +447 numbers. It said that “any suggestion that it should be assumed the non-direct routing is considered fraudulent would [...] be problematic from a competition and innovation stand point”.⁹⁹
 - [S&C] considered that, if providers have KYC checks or provable digital identity in place for customers, they should be able to present CLI to call recipients.¹⁰⁰
- 4.60 We note stakeholders’ comments about the potential impact of the proposals on valid calls from UK mobile numbers abroad that are not mobile users roaming abroad.
- 4.61 We disagree with the FCS’s suggestion that the proposals would not capture all relevant calls. Part A would apply to all calls from abroad that display a UK mobile Presentation Number, except calls which enter UK networks via a direct route (for example, calls made over most network home routing-based routes) and which can be verified.
- 4.62 With respect to stakeholders’ suggestions that Part A would have an undue impact on VoIP/OTT voice services, we are mindful that industry has previously addressed the issue of enabling legitimate calls that use UK CLI to transit through international gateways, in relation to UK fixed numbers. We also note that VoIP/OTT voice services can choose to use any type of number for these services that is available for VoIP/OTT, including fixed numbers. Authorised routes into the UK are also available for these providers to use, including routes that permit the display of UK CLI. We expect providers to continue to perform due diligence checks on any supplier of these routes or numbers used as part of their business and delivery model.¹⁰¹
- 4.63 Implementing Part A would continue to allow calls from virtual +447 numbers to be routed and terminated correctly in the UK, as number withheld. Taking into account the ways in which providers can mitigate the impact of Part A, set out above, we do not consider that Part A is likely to undermine innovation and competition in VoIP/OTT voice services or unduly impact VoIP/OTT voice services.

⁹⁷ [FCS response](#) to the 2025 Consultation, pp.1-2.

⁹⁸ [CCUK response](#) to the 2025 Consultation, pp.1-4.

⁹⁹ [Magrathea response](#) to the 2025 Consultation, p.2.

¹⁰⁰ [S&C] response to the 2025 Consultation, pp.2-3.

¹⁰¹ For example, we set out steps providers might undertake to demonstrate compliance with GC B1 (allocation, adoption and use of telephone numbers) in our [Good practice guide to help prevent misuse of sub-allocated and assigned numbers](#).

Implications for Part A of our decision not to implement Part B

- 4.64 We have considered whether implementing Part A without Part B (expecting UK providers to home route all calls from abroad to the UK in order to restore the +447 Presentation Number, where applicable) would affect the impact of Part A as a remedy.
- 4.65 We expect that the effect of not implementing Part B will be to increase the risk that some legitimate calls will appear to the recipient as withheld. This could cause frustration both to UK roaming customers and call recipients, while recipients may be less likely to answer UK roaming customers' calls than before the implementation of Part A.
- 4.66 However, we consider that any adverse impact is likely to be very limited by comparison with the benefits of Part A, because the number of legitimate calls that could face this risk is likely to diminish:
- An increasing number of UK roaming customers' calls to the UK are made over network home routed connections.¹⁰² These calls are home routed and checked as an inherent part of the technology used to deliver them. As we have noted, a number of responses to our 2025 consultation strongly asserted that this proportion will increase further as rollout of network home routing-based roaming continues. These calls will not be in scope of Part A.
 - We expect that legitimate calls from UK roaming customers constitute a falling proportion of the total number of calls to the UK with a +447 Presentation Number that are routed to recipients via intermediary providers, and that may therefore appear as withheld. As set out in section 3, across the four MNOs, the volume of inbound calls presenting +447 numbers was also around six times higher than the volume of genuine calls from UK roaming customers, while MNOs' individual estimates of this proportion ranged from approximately four times to thirteen times the difference.
 - As set out previously in this section, in practice we expect that UK roaming customers will also use a range of alternative means of communication if they experience any inconvenience from appearing as withheld numbers. Virgin Media O2 noted that "the majority of destinations in this situation [i.e. those which would have come under the scope of Part B of our proposals] tend to be developing nations containing very small operators meaning UK roaming customers abroad often use alternative OTT communication".¹⁰³
- 4.67 We encourage UK providers to continue to invest in network home routing-based roaming in locations where customers may benefit from certainty that recipients of their calls will see their CLI, e.g. in holiday destinations.

Conclusion on Part A

- 4.68 As set out above, we consider that the Part A of our proposals would achieve our policy objective, by reducing the likelihood that scammers operating from outside the UK will be able to successfully reach UK consumers with spoofed UK mobile numbers. This will bring significant benefits to UK consumers and reduce the harm that scam calls create. It will also

¹⁰² As we note in section 2, it is not possible to calculate the proportion of calls with +447 Presentation Numbers which enter UK networks over home routing-based connections as a proportion of the total number of calls entering UK networks. This is because providers do not gather data on volumes of calls by type in all cases or in a way which makes an estimate of this proportion possible.

¹⁰³ [Virgin Media O2 response](#) to the 2025 Consultation, p.4.

reduce incentives for scammers to try to spoof these numbers, which may result in reduced volumes of suspicious calls.

- 4.69 We note that stakeholders have raised various comments regarding the costs and potential limitations of Part A. However, given our reasoning set out above, we continue to consider that the costs of implementation are likely to be low. We also consider that any limitations of Part A will not impact its efficacy as a means to achieve our policy objective.
- 4.70 For the avoidance of doubt, we do not consider that calls that enter the UK via a direct route (for example, calls made over the majority of network home routing-based networks), and which can be verified, are likely to come within the scope of Part A. The nature of network home routing-based architecture means that checks are inherent in the delivery of the call, as the home network has visibility of the specific calls being made before they are passed on to the recipient. This is reflected in our updated Guidance.

Assessment of Part B: home routing (supported by CAMEL standards)

- 4.71 As we have set out, Part B of our proposals was that UK providers should have arrangements in place with their roaming partner networks so that non-network home routing calls to the UK, made by UK roaming customers, are routed via the customer's home network (supported by CAMEL standards). The home network would then modify the CLI data of calls from customers who were genuinely roaming abroad, so that the call recipient could see who was calling them, where this was technically feasible.
- 4.72 In this section, we assess the benefits, costs and potential limitations of Part B and set out our conclusion not to proceed with this aspect of our proposals.

Responses to our consultation and our assessment

Benefits of Part B

- 4.73 We set out in our 2025 consultation our view that Part B would help ensure that, following the implementation of Part A, calls to the UK from UK roaming customers would display the CLI to the recipient (or a named caller if the number is stored in the device). As we have noted, without Part B, some legitimate calls made by UK roaming customers that originate on non-network home routing connections could appear to the recipient as withheld, which may prompt the recipient to decline the call.
- 4.74 Some respondents agreed with the benefits of Part B of our proposals.
- iconectiv UK said that the proposal represented a “proportionate and technically-feasible solution that closes a long-standing loophole”, building on “established roaming technologies”.¹⁰⁴
 - Tata Communications said that the proposal appeared to “have merit” given its “effectiveness and its efficiency”.¹⁰⁵

¹⁰⁴ [iconectiv UK response](#) to the 2025 Consultation, p.4.

¹⁰⁵ [Tata Communications response](#) to the 2025 Consultation, p.2.

- NICC Standards Ltd said that it “agree[d] with the proposals and would be happy to document the technical details which all CPs and gateway operators’ should follow”.¹⁰⁶
- 4.75 Some other respondents argued that Part B was unnecessary and disproportionate, as more providers are increasingly adopting network home routing-based roaming, which is inherently more secure and not subject to the risk of spoofing that our proposals are designed to address. BT, for example, stated that operators around the world would ultimately retire 2G and 3G networks, so that “any new system will deliver diminishing returns”.¹⁰⁷
- 4.76 As set out above, a growing proportion of UK roaming customers’ calls to the UK already originate on network home routing-based connections,¹⁰⁸ which are inherently more secure than 2G and 3G connections and which providers already route directly to the caller’s home network.
- 4.77 The benefit of Part B is that legitimate calls from UK roaming customers via 2G/3G networks would appear to call recipients with the number reinstated. However, calls of this kind are falling in number as network home routing adoption increases. As a result, the benefits of Part B would get smaller over time.

Costs and potential limitations of Part B

- 4.78 In our consultation, we set out our view that the costs of Part B of our proposals were unlikely to be unduly onerous and we expected that they would be proportionate to the benefits of our proposals. We also stated that an appropriate implementation period could mitigate the potential challenges of implementing Part B, such as the need to renegotiate roaming agreements to enable home routing (supported by CAMEL standards).
- 4.79 In responding to our consultation, mobile operators expressed concern about the costs and practicalities of Part B:
- BT said that the value of work on CAMEL protocols has continued to diminish by comparison with adopting network home routing-based roaming and that providers may encounter difficulties in securing CAMEL agreements with international roaming partners, “many of whom do not believe doing so is in their commercial interest”.¹⁰⁹
 - Virgin Media O2 said that “significant testing and development” would be required to implement restoration of CLI “without a guarantee of successful deployment and implementation”.¹¹⁰
 - VodafoneThree said that a “proportionate approach to the implementation of home network routing” which took the “complexity and costs” into account was needed. It said that, to implement Part B, UK mobile operators would need to configure their networks to accept home routed calls, reinstate CLI privacy headers and route calls onwards to the destination. It said that UK mobile networks would need to update each user configuration to ensure that they could use CAMEL services, if this had not already been done. It noted that this work could “cost a significant amount at a time when

¹⁰⁶ [NICC Standards Ltd response](#) to the 2025 Consultation, p.3.

¹⁰⁷ [BT response](#) to the 2025 Consultation, p.3.

¹⁰⁸ Based on information provided by MNOs as part of information requests there are challenges providing specific information on the number of VoLTE (S8HR) calls but where available this accounted for a significant proportion and the general direction of travel is for this to increase more rapidly over the coming years.

¹⁰⁹ [BT response](#) to the 2025 Consultation, p.3.

¹¹⁰ [Virgin Media O2 response](#) to the 2025 Consultation, p.4.

resources could be working on VoLTE roaming and 5G” and that the cost could vary between different providers.¹¹¹

- 4.80 When we published our 2025 consultation, we had limited evidence of the proportion of calls that would come under the scope of Part B or its costs. In the light of concerns that stakeholders expressed about costs, we sought further information from mobile operators, which has enabled us to better understand its potential impact.
- 4.81 The UK MNOs each have several hundred roaming partners, a large proportion of which account for significant volumes of traffic. Therefore, they would need to renegotiate a higher number of arrangements with roaming partners to implement Part B of our proposals (by home routing all relevant traffic, supported by CAMEL standards) than the evidence that was available to us at the time of our consultation had suggested. We consider that implementing Part B would likely require more resource, including workforce costs and investment in older technologies, than we had expected at the time of our consultation.
- 4.82 [X] also shared an internal document that suggested that it would be difficult to extend its existing CAMEL footprint, because roaming partners saw it as a legacy service. It had provisionally estimated that a solution (which would involve an API request/lookup to check if a number is roaming) would have an estimated cost to [X] alone of [£Xm+].

Conclusion on Part B

- 4.83 In the light of new evidence, and for the reasons set out above, we consider that the costs and challenges of implementing Part B are greater than we had estimated in our consultation. If we were to proceed to implement Part B, these costs would likely be either passed on to consumers in higher prices or met at the expense of investment elsewhere. We do not believe that this would represent a proportionate regulatory burden or value for money for UK people and businesses.
- 4.84 As set out above, while introducing Part A without Part B may increase the risk that some legitimate calls from UK roaming customers originating on 2G and 3G networks abroad will appear to the recipient as withheld, this is likely to affect a low and falling volume of calls as roll out of home routing-based roaming continues. UK providers may wish to set up home routing arrangements (supported by CAMEL standards) for customers roaming abroad where they consider that the benefit for their customers justifies the cost of doing so, as some already do. In addition, roaming UK mobile customers also have other options for communicating with people in the UK and mitigating any disruption from their CLI appearing as withheld, where mobile operators do not address this risk. We encourage providers to ensure transparency for roaming customers about the fact that their call may appear to the recipient as withheld, where relevant: for example, in web pages relating to roaming or messages delivered to roaming users on connection to the roaming network.
- 4.85 We consider that Part A alone will achieve our policy objective and address the harms set out in section 3 in a proportionate manner.
- 4.86 Accordingly, we have determined that we will not implement Part B of our proposal, so that UK providers will not be required to have arrangements in place with their roaming partner

¹¹¹ [Vodafone Three response](#) to the 2025 Consultation, pp.3-4.

networks to route calls to the UK, made by UK roaming customers, via the customer's home network to restore the CLI Presentation Number.

Our final decision

- 4.87 Taking into account all relevant factors (including our policy objective, relevant legal duties and assessments above), we have decided to implement changes to our CLI Guidance in line with Part A: to set out that, when calls with a +447 Presentation Number first reach a UK provider (including entities acting as international gateways), the provider will be required to modify the call's CLI data to mark the Presentation Number as withheld. We set this out in Annex 1.
- 4.88 We do not consider that calls that enter the UK via a direct route (for example, calls made over the majority of network home routing-based networks), and which can be verified, are likely to come within the scope of this guidance.
- 4.89 Under our regulatory principles, we will only intervene if we consider it appropriate and proportionate to do so. This is based on our duty under section 3(3)(a) of the Act to have regard to the principles under which regulatory activities should be proportionate and targeted only at cases where action is needed.
- 4.90 As set out in section 2, our policy objective is to significantly reduce the likelihood that scammers operating outside the UK can successfully reach UK consumers with calls displaying spoofed UK mobile numbers. Given the opportunity to spoof UK mobile numbers that the previous gap in our guidance presented (which we explained in section 2), we consider that implementing these changes in line with Part A will achieve this policy objective and help to address the associated harms identified in section 3. We also consider that this measure is necessary because, as discussed above, alternative measures would be more onerous to implement than is necessary to meet our policy objective and may have unintended negative consequences for consumers.
- 4.91 We recognise that this measure may introduce some additional costs for industry and could have some adverse impacts on consumers and businesses, as discussed above. Nonetheless, taking the expected benefits, costs, and potential adverse impacts together in the round, we consider that these costs and impacts are proportionate to the expected benefits.

Implications for Crown Dependencies

- 4.92 Most calls from the Crown Dependencies of Jersey, Guernsey and the Isle of Man using +447 numbers from the UK's National Numbering Scheme will not be affected by changes to our CLI Guidance, as we understand that these calls enter the UK network via a national interconnect and are therefore not treated as coming from abroad.
- 4.93 However, calls made to the UK or to Crown Dependencies by customers of Crown Dependency operators, who are roaming on 2G or 3G networks (or networks which do not verify calls by design) outside of UK or Crown Dependency networks, may see their calls affected by our updated CLI Guidance that entities undertaking international gateway functions should mark the CLI Presentation Number as withheld, depending on the

provider's own routing protocols and network architecture. Crown Dependency operators are not expected to take any steps in relation to our decision.¹¹²

- 4.94 The assessments of Part A and Part B, their benefits, costs and proportionality, which we set out in this publication, also apply to the impact on Crown Dependency operators and their customers.

Implementation period

- 4.95 In our consultation, we said that we would give providers 12 months to implement the proposed changes. We considered this appropriate at the time because some providers would need to renegotiate roaming agreements with mobile operators outside the UK to support non-home routing of roaming calls.
- 4.96 In this section, we consider the appropriate implementation period in the context of our decision to implement Part A only and in the light of consultation responses.

Responses to our consultation

- 4.97 Respondents to our consultation generally commented on the timescale for the combined proposals. However, some respondents commented on timescales for the implementation of Part A:
- BT stated that “12 months is an adequate timescale to withhold CLI”, subject to the caveats it noted in its response more broadly.¹¹³
 - Virgin Media O2 proposed that the 12-month implementation period should apply to calls flagged by the international carrier as withheld.¹¹⁴
- 4.98 VodafoneThree said that, if a proportionate approach is taken to implementation of home network routing, then it agreed with the 12 month period proposed, but that a period of at least 2-3 years would be required for the full implementation of Part B.¹¹⁵ Similarly, Tata Communications said that the proposed 12 month duration was “the minimum that would be reasonable and more time may be required”.¹¹⁶
- 4.99 Some respondents, including [redacted], did not support our implementation period because they considered the proposals themselves were not reasonable.

Assessment

- 4.100 We note the responses from operators that indicate that a period of at least 12 months would be required to implement the proposals as set out in our consultation, with additional time required to implement the restoration of CLI. We consider that, as we are implementing Part A of our proposals only, an implementation period of 12 months from the date of publication of this statement is appropriate.

¹¹² Although not part of the UK and subject to their own regulation, there is an arrangement for the Crown Dependencies of Jersey, Guernsey and the Isle of Man to use numbers from the UK's +44 UK Country Code. Ofcom allocates numbers to providers that operate in the Crown Dependencies directly.

¹¹³ [BT response](#) to the 2025 Consultation, p.8.

¹¹⁴ [Virgin Media O2 response](#) to the 2025 Consultation, p.4.

¹¹⁵ [VodafoneThree response](#) to the 2025 Consultation, p.3.

¹¹⁶ [Tata Communications UK response](#) to the 2025 Consultation, p.2.

Our final decision on the implementation period

- 4.101 We will set a period of a maximum of 12 months from the publication of this statement and our updated CLI Guidance for providers acting as international gateway entities to demonstrate compliance with GC C6.6 by flagging the Presentation Number of calls entering UK networks with a +447 Presentation Number as withheld. The changes to our CLI Guidance will therefore come into effect on 15 July 2027.
- 4.102 Although we will not expect providers to comply with the changes to the CLI Guidance during the implementation period, we strongly encourage providers to implement Part A at the earliest opportunity.

A1. Changes to our CLI Guidance

Guidance and explanation of changes

- A1.1 The CLI Guidance sets out what is expected of providers to comply with the requirements in GC C6.6. We have updated the CLI Guidance to confirm how we expect providers to process calls from abroad that have a +447 Presentation Number.
- A1.2 The [updated CLI Guidance](#) has been published alongside this statement. We expect providers to comply with the new CLI Guidance from 15 July 2027.

Our previous guidance

- A1.3 Our previous CLI Guidance, prior to publication of this statement, is set out in paragraphs 4.15-4.19D.¹¹⁷ It set out that when receiving calls from outside the UK:
- a) The responsibility to check the validity of CLI Data falls on the provider at the first point of ingress to the UK network.
 - b) Where the Communications Provider (CP) considers the Presentation Number to be an invalid or a non-dialable number, or where there is no Presentation Number and the Network Number is also invalid, the call should be blocked.
 - c) Calls with valid Presentation Numbers and no Network Number can be connected if the provider has good reason to consider the call to be legitimate.
 - d) Calls with valid Presentation Numbers that have invalid Network Numbers should be blocked, unless the provider is investigating the cause of the invalid CLI data.
 - e) Calls from outside the UK (or Crown Dependencies) should not use UK CLI as a Network Number or Presentation Number, except in a limited number of circumstances, which includes calls with a CLI from the +447 range.

Updated guidance

- A1.4 We will remove the permission our previous CLI Guidance gave to calls from outside the UK to present a UK CLI from the +447 range, outlined in bullet (e) above (paragraph 4.19A of the CLI Guidance) and amend the text to reflect our expectations of how providers should process these calls. The additions and amendments are outlined in the following tables.

Changes to the CLI Guidance and side-by-side comparison

Previous guidance	Wording of updated guidance
1.5 '[...] Calls with inaccurate CLI Data should be stopped or blocked, to protect recipients from spoofed calls.'	1.5 '[...] Calls with inaccurate CLI Data should be processed in line with this guidance to protect recipients from spoofed calls.'

¹¹⁷ Ofcom. [CLI Guidance](#)

- A1.5 This change removes the requirement to stop or block all calls with inaccurate CLI data and confirms that calls should be treated as indicated by the CLI Guidance, depending on the origin and characteristics of the call.

Previous guidance	Wording of updated guidance
2.11 '[...] CPs have also developed guidance on blocking inbound international calls with UK CLI as a Network Number, under ND 1447.'	2.11 '[...] CPs have also developed Public Network Signalling Specifications for blocking inbound international calls with UK CLI as a Network Number, under ND1016 [and related footnote]'

- A1.6 The change above updates the NICC standard the guidance references, as the NICC has moved the relevant guidance from ND1447, Guidance on blocking of inbound international calls with UK Network Number as CLI118 into ND1016, Requirements on Communications Providers in relation to Customer Line Identification display services and other related services.¹¹⁹

Previous guidance	Wording of updated guidance
N/A: Additions from paragraph 4.18 onwards.	New text: 4.18A 'Calls from outside the UK with a CLI from the +447 range should be modified, by the CP at the first point of ingress to the UK network, to prevent the display of a CLI as a Presentation Number. This should be performed through modification of the privacy marking associated with the CLI Data to indicate that the Presentation Number is withheld.'

- A1.7 The additions above set out our expectations of providers when handling calls from outside the UK with a CLI from the +447 range.
- A1.8 Paragraph 4.16 of the CLI Guidance notes that "for calls originated on networks outside the UK, the responsibility to check the validity of the CLI Data falls on the communications provider at the first point of ingress to the UK network". Footnote 21 of the CLI Guidance also notes that this check "may be carried out by an international gateway provider or a provider that receives a call into the UK via a direct route".
- A1.9 We do not consider that calls that arrive in the UK via a direct route (for example, calls made over the majority of VoLTE networks), and which can be verified, are likely to come within the scope of paragraph 4.18A.

¹¹⁸ NICC, [ND 1447: Guidance on blocking of inbound international calls with UK Network Number as CLI](#).

¹¹⁹ NICC, [ND 1016: Requirements on Communications Providers in relation to Customer Line Identification display services and other related services](#).

- A1.10 Paragraph 4.11 of the CLI Guidance confirms that “the checks that a CP may be expected to carry out will vary depending on their role in that call”. In line with the scope of responsibility already outlined in paragraph 4.16, the responsibility for undertaking the modification of the privacy marking defined in 4.18A will fall to the provider at the first point of ingress to the UK network. In the majority of cases, this will be the entity fulfilling the international gateway function into the UK for the call.
- A1.11 Paragraph 4.9 confirms that “every call must be associated with a Network Number”. Although, under this updated Guidance, calls from abroad with a CLI from the +447 range will be modified at the point of ingress to mark the Presentation Number as withheld, genuine calls from UK mobile users roaming abroad will still contain a valid, dialable telephone number which uniquely identifies the caller in the signalling data, i.e. the Network Number CLI (in many cases, this will be the same number as the Presentation Number). As stated in paragraph 4.3, calls that do not have valid CLI Data, do not uniquely identify the caller, or do not contain a telephone number that is dialable, should not be connected to the called party.

Previous guidance	Wording of updated guidance
4.19A ‘Calls from outside the UK (or Crown Dependencies) can present a UK CLI as a Network Number in the following situations: • Calls with a CLI from the +447 range. This is to ensure calls from UK (and Crown Dependency) mobile users roaming on a non-UK (or non-Crown Dependency) network making calls back to +44 numbers are not blocked;’	4.19A ‘Calls from outside the UK (or Crown Dependencies) can present a UK CLI as a Network Number in the following situations:’ [This bullet will be deleted].

- A1.12 This deletion removes the permission our previous CLI Guidance gave to calls from outside the UK to present a UK CLI from the +447 range.
- A1.13 Most calls from the Crown Dependencies of Jersey, Guernsey and the Isle of Man using +447 numbers from the UK’s National Numbering Scheme will not be affected, as we understand that these calls enter the UK network via a national interconnect. However, calls made by customers of Crown Dependency operators, who are roaming on 2G or 3G networks outside of UK or Crown Dependency networks, would come under the scope of 4.19A. This is because we expect that entities undertaking international gateway functions would mark the Presentation Number of these calls as withheld in line with the changes to our CLI Guidance.¹²⁰

¹²⁰ As noted in section 4, although not part of the UK and subject to their own regulation, there is an arrangement for the Crown Dependencies of Jersey, Guernsey and the Isle of Man to use numbers from the UK’s +44 UK Country Code. Ofcom allocates numbers directly to providers that operate in the Crown Dependencies.

Previous guidance	Wording of updated guidance
4.19A ‘Calls from outside the UK (or Crown Dependencies) can present a UK CLI as a Network Number in the following situations: [...] where the CP can demonstrate (FN23) the call is being made by a UK (or Crown Dependency) customer but has originated on a non-UK (or non-Crown Dependency) network. This includes traffic that is hosted on nodes or cloud services outside the UK (or Crown Dependencies). [fn 23]: See footnote 21 above. One way in which CPs can demonstrate this legitimate use case applies for calls which use UK CLI as a Network Number is by seeking assurance that the caller is using a number that has been allocated to the originating CP or one that has been ported into the originating CP’s network. See also paragraph 3.58 of our Statement on Presentation Number Blocking. Ofcom, 2024. Statement: Updating our CLI Guidance to expect providers to block more calls with spoofed numbers	4.19A ‘Calls from outside the UK (or Crown Dependencies) can present a UK CLI as a Network Number in the following situations: [...] where the CP can demonstrate (FN23) the call is being made by a UK (or Crown Dependency) customer but has originated on a non-UK (or non-Crown Dependency) network. This includes traffic that is hosted on nodes or cloud services outside the UK (or Crown Dependencies). [fn 23]: See footnote 21 above. One way in which CPs can demonstrate this legitimate use case applies for calls which use UK CLI as a Network Number is by seeking assurance that the caller is using a number that has been allocated to the originating CP or one that has been ported into the originating CP’s network. See also paragraph 3.58 of our Statement on Presentation Number Blocking. Ofcom, 2024. Statement: Updating our CLI Guidance to expect providers to block more calls with spoofed numbers. For calls with numbers from the +447 range the CP can also demonstrate this where they ‘home route’ calls from their customers roaming abroad directly to their network. See paragraphs 2.32-2.33 of our Statement on Tackling scam calls from abroad.

A1.14 This above addition to footnote 23 permits use of +447 Presentation Numbers for calls that come into the UK from abroad via routes which feature inherent home routing and verification (such as, for example, calls made over S8HR), as the provider will know that the UK (or Crown Dependency) customer is roaming, therefore it is a call from a UK (or Crown Dependency) customer originating on a non-UK (or non-Crown Dependency) network.

Previous guidance	Wording of updated guidance
4.19D [fn25] ‘The NICC has published guidance in ND1447 about blocking calls from abroad using UK CLI.’	4.19D [fn25] ‘The NICC has published Public Network Signalling Specifications in ND1016 for blocking calls from abroad using UK CLI.’

A1.15 This above amendment is to update the guidance to reflect the latest specifications from NICC.

Previous guidance	Wording of updated guidance
4.28 'The CLI Data associated with a call includes the privacy marking which indicates how the caller wishes this information to be used. This marking must indicate to the recipient's network that the CLI is: [...] Withheld – where the caller has been given the possibility of preventing the display of CLI Data and has chosen to exercise this option.'	4.28 'The CLI Data associated with a call includes the privacy marking which indicates how the caller wishes this information to be used. This marking must indicate to the recipient's network that the CLI is: [...] Withheld – where the caller has been given the possibility of preventing the display of CLI Data and has chosen to exercise this option or where a CP has set the number to be withheld in line with this guidance.'
4.30 'To satisfy the end user's right to prevent the display of their number, the originating CP must provide the correct privacy marking alongside the number. For calls received from a network outside the scope of these requirements, the CP at the first point of ingress to the UK networks is responsible for ensuring that the call signalling reflects UK regulation to ensure that caller's privacy rights are respected. The CP receiving the call at the ingress to UK networks can use the same privacy markings as above, but in this context the markings have a different meaning: [..] Withheld – where there is an explicit indication that the caller does not wish to make their CLI available to the recipient of the call.'	4.30 'To satisfy the end user's right to prevent the display of their number, the originating CP must provide the correct privacy marking alongside the number. For calls received from a network outside the scope of these requirements, the CP at the first point of ingress to the UK networks is responsible for ensuring that the call signalling reflects UK regulation to ensure that caller's privacy rights are respected. The CP receiving the call at the ingress to UK networks can use the same privacy markings as above, but in this context the markings have a different meaning: [..] Withheld – where there is an explicit indication that the caller does not wish to make their CLI available to the recipient of the call or where a CP has set the number to be withheld in line with this guidance.'
4.31 'The transit CP should ensure that the privacy marking is passed with the call unchanged, so that the integrity of CLI Data is maintained from the originating CP to the terminating CP.'	4.31 'The transit CP should ensure that the privacy marking is passed with the call unchanged, so that the integrity of CLI Data is maintained from the originating CP to the terminating CP, unless the privacy marking has been modified in line with this guidance.'

A1.16 The above amendments are intended to ensure consistency throughout the CLI Guidance.

A2. Legal framework

- A2.1 This annex provides a brief overview of the main UK legislative provisions relevant to this decision. It is not a full statement of all the legal provisions which may be relevant to Ofcom's functions or to numbering. The applicable legal framework derives from our duties and powers in the Communications Act 2003 (the Act).
- A2.2 When considering our decision, we have considered and acted in accordance with the legislative provisions set out below.
- A2.3 Our principal duty under section 3(1) of the Act is to further the interests of citizens in relation to communication matters; and to further the interests of consumers in relevant markets, where appropriate by promoting competition.¹²¹
- A2.4 In performing our duties under section 3(1) of the Act, we are required to have regard to the principles under which regulatory activities should be transparent, accountable, proportionate, consistent and targeted only at cases in which action is needed, as well as any other principles appearing to us to represent best regulatory practice (section 3(3) of the Act).
- A2.5 Section 3(4) of the Act provides that we must have regard, in performing our duties, to a number of matters, as they appear to us to be relevant in the circumstances, including:
- a) the desirability of promoting competition in relevant markets;
 - b) the desirability of promoting and facilitating the development and use of effective forms of self-regulation (except in relation to our Online Safety functions);
 - c) the desirability of encouraging investment and innovation in relevant markets;
 - d) the desirability of ensuring the security and availability of public electronic communications networks and services;
 - e) the desirability of ensuring that relevant markets facilitate end-to-end connectivity in the interests of consumers in those markets;
 - f) the vulnerability of children and of others whose circumstances appear to us to put them in need of special protection;
 - g) the needs of disabled people, of the elderly and of those on low incomes;¹²²
 - h) the desirability of preventing crime and disorder; and
 - i) the opinions of consumers in relevant markets and of members of the public generally.
- A2.6 Section 4(2) of the Act requires us to act in accordance with six requirements when carrying out certain functions, such as our numbering functions, which are in summary:
- a) to promote competition in the provision of electronic communications services, networks and associated facilities and the supply of directories;
 - b) to promote the interests of all members of the public in the United Kingdom;

¹²¹ 'Consumer' is defined in section 405(5) of the Act and includes people acting in their personal capacity or for the purposes of, or in connection with, a business.

¹²² We also have public sector equality duties in section 149 of the Equality Act 2010. In particular, we must have due regard to the need to advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it. This involves considering the need to: remove or minimise disadvantages suffered by people due to their protected characteristics; and take steps to meet the needs of people with protected characteristics. We have similar public sector equality duties in section 75 of the Northern Ireland Act 1998. We have set out our equality impact assessment in Annex 3.

- c) to take account of the desirability of Ofcom’s carrying out of its functions in a manner which, so far as practicable, does not favour one form of or means of providing electronic communications networks, services or associated facilities over another (i.e. to be technology neutral);
- d) to encourage the provision of network access and service interoperability to such extent as Ofcom considers appropriate for the purposes of securing efficiency and sustainable competition; efficient investment and innovation; and the maximum benefit for the persons who are customers of communications providers and of persons who make associated facilities available;
- e) to encourage compliance with certain standards in order to facilitate service interoperability, end-to-end connectivity, and secure freedom of choice for the customers of telecoms providers; and
- f) to promote connectivity and access to very high capacity networks by members of the public and businesses in the United Kingdom.

A2.7 As required by section 2B(2)(a) of the Act, we have had regard to the UK Government's Statement of Strategic Priorities for telecommunications, management of radio spectrum and postal services.¹²³

A2.8 Lastly, in accordance with section 108 of the Deregulation Act 2015, we have also had regard to the importance of promoting economic growth by exercising our regulatory functions in a way that ensures that regulatory action is taken only when it is needed, and any action taken is proportionate.

Our functions and powers relating to telephone numbers

A2.9 Ofcom also has a general duty under section 63 of the Act in carrying out its telephone numbering functions to, among other things:

- a) secure that what appears to it to be the best use is made of the numbers that are appropriate for use as telephone numbers; and
- b) encourage efficiency and innovation for that purpose.

A2.10 It is also our duty, in carrying out our numbering functions, to secure that there is no undue discrimination by communications providers against other communications providers in relation to the adoption of telephone numbers for purposes connected with the use by one communications provider, or his customers, of an electronic communications network or electronic communications services provided by another (section 63(2) of the Act).

General Conditions

A2.11 Ofcom has powers under section 45 of the Act to impose General Conditions on communications providers. We have imposed various General Conditions on communications providers relating to their use of numbers and the provision of CLI facilities, including to prevent the misuse of numbers to facilitate scams.¹²⁴

A2.12 In particular, we have imposed a number of General Conditions in GC C6 relating to CLI on providers of Number-based Interpersonal Communications Services and Public Electronic

¹²³ DSIT, [Statement of Strategic Priorities for telecommunications, the management of radio spectrum, and postal services](#), 2026. We note, in particular, that Strategic Priority 2 states that “Ofcom should continue to use its levers to identify and address the vulnerabilities in telecoms networks that are exploited by criminals to scam consumers.”

¹²⁴ These include GC B1 and C6.

Communications Networks over which Number-based Interpersonal Communications Services are provided.¹²⁵ These conditions include:

General Condition C6.4 which provides that:

When providing Calling Line Identification Facilities, Regulated Providers must:

- (a) ensure, so far as technically feasible, that any CLI Data provided with and/or associated with a call includes a valid, dialable Telephone Number which uniquely identifies the caller; and*
- (b) respect the privacy choices of End-Users*

General Condition C6.6 which provides that:

Where technically feasible, Regulated Providers must:

- (a) take all reasonable steps to identify calls, other than calls to Emergency Organisations, in relation to which the CLI Data provided is invalid, does not uniquely identify the caller, or does not contain a Telephone Number that is dialable; and*
- (b) prevent those calls from being connected to the called party, where such calls are identified.*

CLI Guidance

- A2.13 Our CLI Guidance sets out guidance on how CLI data should be carried through different networks and the responsibilities of different parties involved in the routing of a call. In particular, it explains how we expect providers to comply with GC C6.6.

¹²⁵ The terms are defined in the General Conditions. [General Conditions of Entitlement - Ofcom](#)

A3. Impact assessments

- A3.1 Section 7 of the Act requires us to carry out and publish an assessment of the likely impact of implementing a proposal which would be likely to have a significant impact on businesses or the general public, or when there is a major change in Ofcom's activities. We included this assessment in our 2025 consultation, in particular in sections 3 and 4.
- A3.2 More generally, impact assessments form part of good policy-making and we therefore expect to carry them out in relation to a large majority of our proposals. We use impact assessments to help us understand and assess the potential impact of our policy decisions before we make them. They also help us explain the policy decisions we have decided to take and why we consider those decisions best fulfil our applicable duties and objectives in the least intrusive way. Our impact assessment guidance sets out our general approach to how we assess and present the impact of our proposed decisions.¹²⁶
- A3.3 Sections 3 and 4 of this statement contain our impact assessment. In particular, in section 3 we explain the harms which arise from the use of spoofed UK numbers by scammers abroad and in section 4 we set out our decision to address this harm, together with an assessment of its impact and proportionality. In summary, we expect our decision to have an overall positive impact for stakeholders, consumers and citizens. In particular, it will significantly reduce the likelihood that scammers operating outside the UK can successfully reach UK consumers by appearing to be a UK mobile user and, in turn, reduce the likelihood that people will engage with scam calls and face financial and emotional harm. We also consider that these benefits outweigh the implementation costs and that our decision is proportionate.

Equality impact assessment

- A3.4 We have given careful consideration to whether our decision will have a particular impact on persons sharing protected characteristics (broadly including race, age, disability, sex, sexual orientation, gender reassignment, pregnancy and maternity, marriage and civil partnership and religion or belief in the UK and also dependents and political opinion in Northern Ireland), and in particular whether they may discriminate against such persons or impact on equality of opportunity or good relations. This assessment helps us comply with our duties under the Equality Act 2010 and the Northern Ireland Act 1998.¹²⁷
- A3.5 When thinking about equality we think more broadly than persons that share protected characteristics identified in equalities legislation and think about potential impacts on various groups of persons (see paragraph 4.7 of our impact assessment guidance).
- A3.6 In particular, section 3(4) of the Act also requires us to have regard to the needs and interests of specific groups of persons when performing our duties, as appear to us to be relevant in the circumstances. These include:
- The needs of persons with disabilities, older persons and persons on low incomes.

¹²⁶ See Ofcom [impact assessment guidance](#).

¹²⁷ Further detail is set out in section 149 of the Equality Act 2010 and section 75 of the Northern Ireland Act 1998.

- The different interests of persons in the different parts of the UK, of the different ethnic communities within the UK and of persons living in rural and in urban areas
- A3.7 In forming our proposals and making our decision, we drew on the research conducted into the consumer experience of encountering scams. This research assessed the consumer attitudes and behaviour around scams and included a broad range of socio-economic and age groups.
- A3.8 More generally, we have not identified any adverse impacts on specific groups of persons that are likely to be affected in a different way to the general population.
- A3.9 We expect that preventing scammers from spoofing UK mobile numbers and limiting them to reaching people with calls from withheld numbers will reduce the likelihood that recipients have misplaced confidence in the calls, whether or not they choose to answer them.
- A3.10 A reduced likelihood that recipients answer or trust a caller from a withheld number may have a particularly positive impact on groups of persons that may be more susceptible to scam messages by reducing the likelihood that they may fall victim to scams. For example, there is evidence that female and ethnic minority victims are significantly more likely to experience some types of emotional and health harms associated with fraud and cybercrime compared to males and non-ethnic minority people, respectively. Any reduction in these types of harms from our decision would therefore have a particularly positive impact on these groups.
- A3.11 We discuss vulnerable users in more detail in paragraphs 4.55-4.58 of this statement.

Welsh language

- A3.12 Our decision relates to the protection of consumers and businesses that use mobile services, and specifically the telephone numbers that consumers see calling them. We do not therefore consider our decision will have any impact on opportunities for persons to use the Welsh language or treat the Welsh language less favourably than the English language. We also do not consider that there are ways in which our decision could be formulated to have, or increase, a positive impact on the Welsh language.

The overview section in this document is a simplified high-level summary only. The decisions we have taken and our reasoning are set out in the full document.