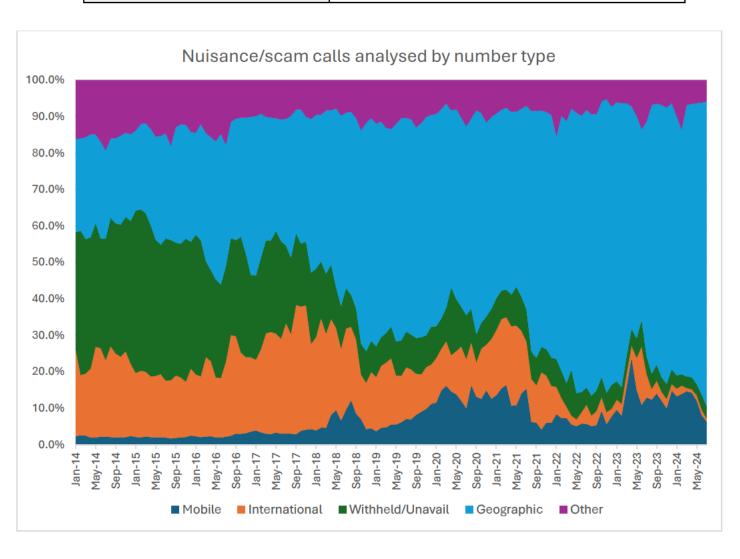
Your response

Question	Your response
Question 1:	Confidential? - N
a) Do you agree with our characterisation of the ways in which mobile calls enter the UK? Please give an explanation for your answer where appropriate.	We don't have any specific expertise in this area.
b) What do you think is the relative importance and / or significance of each of the different routes used for calls to enter the UK? Please provide evidence for your answer.	
c) If you provide mobile services to UK consumers, what international gateway provider(s) does your organisation use (including in-house services)? In addition, please explain the nature of the international gateway services you rely on.	
Question 2:	Confidential? - N
What variables and factors should we take into account when considering whether – and, if so, how - to address the harms caused by spoofed UK mobile numbers?	This is tricky as there is a serious privacy issue one of the proposals is implemented, and this privacy issue must be weighed against the value of blocking these calls.
	Privacy issue
	It is proposed that a system is implemented that blocks overseas calls from mobile numbers that aren't roaming. An unintended consequence if this is that it will allow people legally to check whether someone is abroad.
	Consider an overseas company that can make calls using spoofed numbers. Say that this organisation makes a call to a UK number while spoofing my mobile number. If the call is blocked then they will know that I am in the UK, if the call gets through then they will know that I am roaming abroad.
	While this seems to be a contrived scenario it is very easy for a company to set up. They could offer a cheap service over the web (AreTheyAbroad.com?) to allow

Question	Your response
	people to check whether a family member, partner, friend, business competitor, etc is roaming.
	Would consumers be happy that anyone who knows their mobile number can find out whether they are in the UK or not? Perhaps some research needs to be done into this before the decision is make to implement such a system.
Question 3:	Confidential? – Just the enclosures.
a) What is the scope and scale of con- sumer harm caused by spoofed UK mobile numbers?	a) At trueCall we collect anonymised call data from around 10,000 trueCall users every month. This allows us to track the level and composition of the nuisance and
b) What are the consumer impacts of spoofed UK mobile numbers more broadly? Please provide evidence to support your responses.	scam calls received by the users. We can analyse this by calling number type The chart below shows the data from 15.8 million nuisance and scam calls received by trueCall users since January 2014.



Notice that:

- In 2014 2.2% of nuisance and scam calls received were from mobile numbers. Now the figure is 12.1%. We cannot determine what proportion of these calls are from within the UK or outside the UK.
- In 2014 21.7% of nuisance and scam calls received were from international numbers (or numbers with international markings). Now the figure is 1.8% (a drop of 19.9 percentage points).
- In 2014 35.4% of nuisance and scam calls received were from callers who
 withheld their number (or where the number was unavailable). Now the
 figure is 3.6%.

This suggest to us that the nuisance and scam callers have realised that consumers are very cautious about answering calls from international numbers, from callers who withheld their number, or calls where the number was unavailable (this is view is shown in Ofcom's latest research). We believe that many of the nuisance and scam callers are still making their calls, but have moved to spoofing landline and mobile phone numbers ('number onshoring').

If the whole of the increase in nuisance and scam calls from mobile numbers was due to number onshoring, then this would suggest that 9.9% of all nuisance and scam calls are in this category (12.1% - 2.2% = 9.9%).

While this is a rough calculation, I believe that it gives us an estimate that is the right order of magnitude.

b) We have developed a model with Trading Standards and the Police to evaluate the impact of scam phone calls. This has been in use for 10 years, and has been validated by independent consultants.

We believe that the 18 million UK households that have a landline are currently receiving around 8 nuisance/scam calls per month. This is a total of 1.7bn calls panationally.

If 9.9% of these are international calls that are using a spoofed mobile number (see above) – then this give us a total of 168m spoofed mobile calls.

We estimate that 30% of these calls are scam attempts, and that 0.59% of each scam attempt is successful. This implies that 298k scams from international call centres spoofing mobile numbers are successful each year ($168m \times 0.30 \times 0.0059$).

We believe that the average amount lost to a telephone scam is £2,952 giving a total annual loss of £879m.

There are additional estimated costs:

- Health, policing and social care costs of £817m
- Quality of life costs (QALY) of £495m

I am enclosing a copy of our Cost Benefit model that shows the evidence to support these calculations – please can this be kept confidential.

Question 4:

- a) How significant is the volume of spoofed mobile calls from abroad?
- b) Is there any evidence that scammers are moving from spoofing fixed to mobile UK CLI?

Please provide evidence to support your responses.

Confidential? - N

- a) Significant maybe 11% of all nuisance and scam calls – 187m calls per year (see above)
- b) Not direct evidence, but our graph above strongly suggests this.

Question 5:

How will developments in deployment of mobile technologies in the UK and abroad affect the problem of spoofed UK mobile calls from abroad? Please provide evidence to support your response.

Confidential? - N

We don't have any specific expertise in this area.

Question 6:

- a) What is your preferred option for addressing scam calls made from abroad using spoofed UK mobile numbers, and why (including the pros and cons of the different solutions)?
- b) Do you think it is possible to identify a solution that could be implemented relatively quickly now, and which would enable implementation of a more robust and effective solution in the future? If yes, what solution fits these criteria? Please give an explanation for your response.
- c) What would be the advantages and disadvantages of obtaining more information about, and oversight of, the international gateway providers which bring calls into UK networks, in the context of tackling use of telecommunications networks to facilitate fraud and scams? Please give an explanation for your response.
- d) What would be the advantages and disadvantages of industry-led solutions, and where might regulatory

Confidential? - N

We don't have any specific expertise in this area.

intervention be required? Please give an explanation for your response.	
Question 7: Are there any international experiences of tackling this issue that you think are particularly relevant for the UK? Please provide evidence and an explanation for your answer.	Confidential? – N We don't have any specific expertise in this area.
Question 8:	Confidential? - N
Are the factors outlined in the section 'framework for evaluating options' the right things to think about when making a decision on options to address spoofed UK mobile numbers, and are there any additional factors which we should consider? Please explain your response where appropriate.	We don't have any specific expertise in this area.

Please complete this form in full and return to $\underline{\text{Mobilespoofingresponses@ofcom.org.uk}}$