Ofcom Consultation – Tackling Abandoned and Silent Calls

Question 1: Do you agree that Ofcom should limit the number of times a company can call an answer machine without guaranteeing the presence of a live operator to once every 24 hours?

Noble Systems agrees that the number of times a Company can call an answer machine without guaranteeing the presence of a live operator should be limited in some manner. This is because there is a statistically significant probability that the end to end communications process that causes a live individual to be wrongly classified as an answer machine may be repeated in subsequent calls to the same live individual.

However, the need to avoid silent calls as a result of this erroneous classification needs, in some circumstances, to be balanced with the need to contact any particular individual. The principle here is that when the benefits to the called individual are greater than the inconvenience that may be suffered as a result of non-contact, it should be considered that the reasonable attempts to contact that individual should not be construed as persistent misuse of a network.

On balance, Noble Systems believes that users of this technology should have the ability to determine what is appropriate in terms of the level of repeat contact to detected answer machines but that, in all cases, no more than two attempts are made within any 24 hour period. Users of AMD technology would need to demonstrate that repeated attempts to contact individuals, through repeat calls to detected answer machines, within any 72 hour period were based on time critical requirements.

Question 2: Do you agree with Ofcom that a two month implementation period (from publication of Ofcom's revised statement) would be an appropriate length of time for industry stakeholders to adopt any changes to comply with the proposed 24 hour policy?

Noble Systems does not concur that a two month implementation period (from publication of Ofcom's revised statement) would be an appropriate length of time for industry stakeholders to adopt any changes to comply with the proposed 24 hour policy.

Whilst the requirements may appear straightforward, they will nevertheless need to be implemented by users of the technology in conjunction with the suppliers of such technology. In addition, the decrease in efficiency may well result in increased staffing issues which need to be addressed by organisations which will now be able to make fewer customer contacts per advisor.

Instead, Noble Systems recommends that a period of four months is made available as an implementation period following the publication of any revised statement.

Question 3: Has Ofcom provided sufficient clarity on how the abandoned call rate is to be calculated?

No. Ofcom has not provided sufficient clarity on how the abandoned call rate is to be calculated.

This is because an *abandoned call* is defined as 'where a connection is established but terminated by its originator in circumstances where the call is answered by a live individual. An abandoned call includes a reasoned estimate of *AMD false positives* and excludes a '*reasoned estimate of calls abandoned to answer machines'*.

A '*reasoned estimate of AMD false positives'* is defined as *'an estimate of the number of AMD false positives as a proportion of total answer machine calls'.*

However, it is not possible to create any form of meaningful '*reasoned estimate of false positives*' based on an estimate of *AMD false positives as a proportion of total answer machine calls.* This is because the absolute number of answer machines detected has no bearing on the absolute percentage accuracy of correctly detecting a live individual. If the number of answer machines dialled as a proportion of 1000 connects increases, then it follows that the number of answer machines correctly detected will also increase. Ofcom's supposition is that you should therefore take a proportion of these increased calls as being false positives and that the number of false positives has therefore increased overall.

The true scenario is exactly the opposite of this. As the proportion of answer machines dialled goes up, the absolute number of live individuals called will go down. The simple, and self evident, result of this is that as the percentage of live individuals called decreases in line with the increase in the number of answer machines called, the number of false positives will also decrease. The clarification provided by Ofcom suggests instead that this number will increase.

Taken to the extreme, Ofcom is suggesting that where only answer machines are called and where, by definition, there can be no false positives, it will still be necessary to create a '*reasoned estimate of AMD false positives'* as *'an estimate of the number of AMD false positives as a proportion of total answer machine calls'.* This alone would prove that it is mathematically not possible to base any reasoned estimate of false positives on any proportion of total answer machine calls.

It is possible to state the accuracy of incorrectly detecting a live individual as a probability, p. This is also the probability of a false positive occurring. The probability of correctly detecting a live individual has a probability of 1-p.

The only meaningful definition requires that an estimate of false positives is made based on the starting point of the absolute accuracy of being able to correctly detect a live individual. It is possible to test Automatic Calling Systems on this basis. See also the response to Question 4 below.

Question 4: Do you agree with the factors set out by Ofcom for determining a reasoned estimate of AMD false positives in an ACS user's abandoned call rate?

No. Noble Systems does not agree with the factors set out by Ofcom for determining a reasoned estimate of AMD false positives in an ACS user's abandoned call rate.

In particular, 4.29 states: 'This reflects that a reasoned estimate of false positives is essentially an estimate of how accurate an AMD device is in detecting calls to answer machines'.

This statement is incorrect and Noble Systems believes that the correct statement should be: 'This reflects that a reasoned estimate of false positives is essentially an estimate of how ***inaccurate*** an AMD device is in detecting calls to ***live individuals***'

In order for any form of testing methodology to have validity, it is also necessary that the testing measures the number of calls to live individuals at the same time, and for the same period, that analysis is made of detected answer machines to determine how many were in fact live individuals and therefore false positives. The reasoned estimate of false positives should be based on the number of false positives determined within all detected answer machines divided by the number of live individuals called over the same period (which includes the number of false positives).

False Positives = False Positive probability (p) x Total number of calls to live individuals

Therefore, $p = \frac{\text{False Positives}}{\text{Total Calls to Live Individuals}}$

Noble Systems agrees that it is not possible to use laboratory testing and that Ofcom should not accept manufacturers' claims regarding testing as the sole basis of a reasoned estimate of false positives.

Noble Systems additionally agrees that 4.7 adequately sets out how Ofcom will assess the robustness of testing used to determine a reasoned estimate of AMD false positives. However, at all times such testing should bear in mind the need to maintain statistics on live individuals called over the same period that false positives are also measured.

Noble Systems concurs with the need to undertake testing on a per campaign basis, where expected calling profiles are different, and that testing should also be undertaken when material changes are made to an AMD.

Question 5: Has Ofcom provided sufficient clarity on how AMD users should calculate an abandoned call rate that includes a reasoned estimate of AMD false positives?

There is currently not sufficient clarity for the following reasons:

i) 4.52 provides the formula for calculating the abandoned call rate as:

$$\frac{\text{Abandoned Calls (x)}}{\text{Abandoned Calls (x) + Live Calls to a Live Operator (y)}} * 100$$

However, when using AMD, the number of abandoned calls should include a reasoned estimate of AMD false positives.

4.53 suggests that a 'Reasoned Estimate of AMD false positives is an estimate of the number of AMD false positives as a proportion of total answer machine calls'.

It is not possible to create a reasoned estimate of AMD false positives by basing such an estimate on any fixed percentage of total answer machine calls. The number of AMD false positives as a proportion of total answer machine calls is not a fixed number but will change as the proportion of answer machines truly dialled varies as a percentage of all connected calls.

Clearly, if all connected calls were only made to answer machines and detected as such, it would not be logical to have to take account of any percentage of this number to create a reasoned estimate of false positives since no false positives can have occurred. No Live Individuals have been connected, so it is not possible that any calls have been terminated by their originator in circumstances where the call is answered by a live individual. This is the very definition of a false positive and it is not possible that any have occurred.

False Positives are an absolute number that occur as a probability (p), based on correctly detecting a Live Individual (1-p), multiplied by the number of calls connected to Live Individuals. As such, the number of answer machines that may be dialled, whether or not they are successfully detected as answer machines, has no bearing on the absolute ability of an ACS to detect Live Individuals. By definition, dialling an answer machine cannot result in a False Positive.

A probability tree is attached as Appendix A which clearly demonstrates the eight different outcomes that can occur once a call is connected. Of these eight outcomes, two have a probability of zero since both a live call detected wrongly as an answer machine and an answer machine correctly detected as an answer machined have a zero probability of being connected to a live operator.

ii) 4.54 illustrates an example. In this scenario, a proportion of 1% has been applied to a number of 400 answer machines in order to arrive at a number of 4 as a reasoned number of false positives. As in (i) above, this number is incorrect and should instead be based on the total number of calls connected to Live Individuals, since a fixed percentage of all these calls will, on average, be wrongly detected as answer machines and terminated by their originator thereby resulting in false positives.

iii) The proposed formula for calculating the abandoned call rate when using AMD does not permit for any reasoned estimate of calls abandoned to answer machines.

This is an important omission in the current consultation. Answer Machines, in the main, are not being connected as AMD is turned on and this is presumably why Ofcom considers that it is not appropriate for a reasoned estimate of calls abandoned to answer machines to apply when AMD is turned on.

However, the true scenario is a little more complex. Not all Answer Machines will be detected accurately and a percentage of connections that are Answer Machines will be wrongly classified as Live Individuals and attempt to be connected to an agent. These are known as false negatives. Some of these false negatives will be abandoned and be wrongly reported in the abandoned call percentage, limited to 3%.

Ofcom therefore needs to change the language when AMD is being used such that the abandoned call rate should be modified not just by the inclusion of a reasoned estimate of false positives but also by the inclusion of a reasoned estimate of calls abandoned to answer machines. In this instance, the abandoned calls estimate should be further modified and should include a percentage modification based on a formula of:

$$\frac{(1\text{-False Negative probability})*(\text{Total Number of Connections} - \text{Number of Answer Machines Connected}) * 100}{\text{Total Number of Connections}}$$

Question 6: Has Ofcom provided sufficient clarity on how non-AMD users should calculate an abandoned call rate that includes an estimate of abandoned calls picked up by answer machines?

There is not sufficient clarity for the following reasons:

4.64 provides the formula for calculating the abandoned call rate as:

$$\frac{\text{Abandoned Calls (x)}}{\text{Abandoned Calls (x) + Live Calls to a Live Operator (y)}} * 100$$

However, when not using AMD, the number of abandoned calls is permitted to exclude a reasoned estimate of calls abandoned to answer machines.

4.65 provides that a reasoned estimate of calls abandoned to answer machines is defined as 'an estimate of the actual number of ACS identified abandoned calls that have actually been answered by an answer machine'. This definition is functional and does provide sufficient clarity.

4.66 goes on to illustrate an example whereby the reasoned estimate of calls abandoned to answer machines is arrived at by multiplying the percentage of total calls that are connected answer machines by the number of abandoned calls. There appears to be an error in the language and it is presumed that the statement '3.2 is a reasoned estimate of calls abandoned to answer machines (on the basis that it is estimated the proportion of calls put through to ***live operators*** is 40% and therefore the number of abandoned calls that were picked up by answer machines is statistically likely to be 40%)' should actually read '3.2 is a reasoned estimate of calls abandoned to answer machines (on the basis that it is estimated the proportion of calls put through to ***answer machines*** is 40% and therefore the number of abandoned calls that were picked up by answer machines is statistically likely to be 40%)'.

This formula does not actually create the correct estimate, which should instead be created through the adjustment of the number of system detected abandoned calls by a percentage that should be based on a formula of:

$$\frac{\text{(Total Number of Connections - Number of Answer Machines Connected)}}{\text{Total Number of Connections}} * 100$$

Question 7: Do you agree that Ofcom should not amend the existing two second policy as set out in the 2009 Amendment from 'start of salutation' to 'end of salutation'?

Noble Systems concurs with the potential benefits of amending the two second policy from 'start of salutation' to 'end of salutation' but also accepts that, on balance, it is preferable to keep the wording in line with the 2009 amendment.

Question 8: Do you agree with Ofcom's policy proposal that companies provide a geographic contact number (01, 02 or 03) in addition to a freephone (080) number in the information message provided in the event of an abandoned call?

Noble Systems agrees that it is acceptable to request that companies provide a geographic contact number (01, 02 or 03) in addition to a freephone (080) number in the information message provided in the event of an abandoned call.

Question 9: Has Ofcom provided sufficient clarity on what constitutes a 'campaign'?

Noble Systems believes that the requirement for the definition of a 'campaign' to include the words 'a single proposition' is superfluous. A definition of a campaign which allows "a single call script used to contact a single target audience for a defined purpose/proposition" would be more appropriate whilst still achieving Ofcom's aim.