



VMO2 response to Ofcom’s Consultation on the Reviews of Call Termination Markets and End-to-End Connectivity Condition – NON-CONFIDENTIAL VERSION

Introduction

We are pleased to respond to Ofcom’s Consultation on its reviews of call termination markets and end-to-end connectivity condition published on 18 July 2025. Our response focuses on the proposals that Ofcom made in relation to:

1. setting Termination Rates (hereafter: TRs);
2. continuing to regulate international calls through the Reciprocity Conditions but with some changes in definition and application, and;
3. retaining the network access obligation for all WCT providers and the additional requirements that apply solely to BT.

We agree that current TRs can be used to set rates in the first year, but we oppose Ofcom’s proposal to keep TRs constant at those levels in subsequent years of the review period. Ofcom has not provided evidence or analysis that adequately supports the latter proposal. This is particularly concerning because it would constitute a departure from the precedent of indexing TRs and would be inconsistent with Ofcom’s decision to adjust for inflation in setting annual licence fees.

We support continuation of the Reciprocity Conditions as they have provided a robust basis for UK and international providers to negotiate appropriate TRs. We welcome some definitional changes (e.g. providing clarity on what UK providers are permitted to do both when a reciprocal service is and is not provided), but we are concerned about the proposal to expand the definition of international calls to include “roaming in UK” calls. If this were to take instant effect, this proposal would not be proportionate given the mitigation activities this would require from providers. Furthermore, our planned migration to VoLTE for managing delivery of such calls means that money spent on complying with such a proposal in the short run for legacy voice will be wasted once migration is completed.

We support retaining the network access obligation for all WCT providers and the additional requirements that apply solely to BT albeit with the concern that Openreach’s performance on

repair of network faults in relation to IP interconnection has been below par and is not covered by any of the KPIs on this area.

Our response is structured around these sets of proposals.

Ofcom has not adequately justified its proposal to keep TRs constant in nominal terms¹

Ofcom proposed adopting a four-element approach for regulating call termination:

1. regulate prices for call termination to prevent Terminating Providers from exploiting their market power;
2. set a cost-orientated charge control using LRIC as the cost standard;
3. impose TRs based on the current regulated rates instead of building a new model or revising an existing cost model, and;
4. keep TRs constant in nominal terms over the review period instead of indexing them by inflation.

We support continuation of the first two elements. Price caps on call termination remain necessary as provision of call termination continues to be characterised by a lack of alternatives (albeit with the notable development of OTT growth having led to declining fixed and mobile call voice volumes which raises questions around proportionality as discussed below and possibly market definition in future reviews). Only the provider to which numbers are allocated can terminate calls to the numbers under its control. Setting price caps by means of a cost-orientated charge control using LRIC as the cost standard has provided certainty which has enabled good outcomes in voice and broader telecoms markets.

The latter two elements of the proposed approach relate to how Ofcom would set TRs based on LRIC. We agree that it must be Ofcom's objective to set TRs that reflect LRIC estimates for individual years of the review period. Achieving this objective requires having regard to two aspects.

1. Ofcom must estimate LRIC as it cannot observe the actual LRIC for individual providers or at industry level. It has previously done this by developing a top-down model for a hypothetical network operator, calibrating the model based on data and using the calibrated model to estimate LRIC.

¹ Our discussion does not distinguish between WCT and MCT as our comments generally apply to either area of call termination.

2. Ofcom must estimate LRIC for each year and set TRs on this basis. The precedent is for Ofcom to estimate LRIC for the first year and to then implement an approach to adjust that value thereafter.

Both aspects relate to uncertainty. Ofcom must develop an approach that allows it to set TRs in a way that appropriately manages the risks of setting TRs that diverge from the underlying LRIC, whether too high or too low.

We support Ofcom's proposal to set TRs for the first year of the 2026-31 review period based on the current regulated rates.² These rates could be reasonable as they were at the time set based on model-based LRIC estimates which have since been adjusted by inflation to account for the impact of input cost rises on call termination costs. The alternative to using these rates would involve building new models or a material revision of models developed in earlier reviews. Either would be costly and time-consuming for both Ofcom and providers whilst uncertainty around estimates compared to the underlying LRICs would remain. It is for these reasons that we regard the proposal as pragmatic and proportionate in circumstances where Ofcom proposes to stick with LRIC estimates derived from modelling consistent with regulatory precedent.

What differs in this review is the second part of Ofcom's proposed approach. In preceding reviews, TRs were indexed by inflation to adjust rates over time. This meant that TRs accommodated for rises in input costs over the review period. Ofcom now proposes to depart from this precedent by keeping TRs constant in nominal terms at their current level of 0.0365 ppm for WCT and of 0.487 ppm for MCT over the review period. VMO2 is strongly opposed to this proposal.

Ofcom justified this proposal by saying: *"As technology develops and networks are increasingly designed to carry data traffic (and voice traffic makes up a very small part of network use), we would expect the cost of providing voice termination to go down (rather than to increase in line with inflation). This suggests that keeping termination rates constant in nominal terms, compared to the alternative of adjusting them by inflation, is more likely to reflect a cost-based level going forwards."*³

² Albeit a minor adjustment for inflation must be made to account for the rise in input prices and its impact on costs from April 2025 to April 2026.

³ See paragraph 5.69 of Ofcom's Consultation: Reviews of Call Termination Markets and End-to-End Connectivity Condition.

In effect, Ofcom asserts that call termination costs are likely to fall, and this purported downward trend is then used to suggest that keeping TRs constant in nominal terms is more likely to reflect the path of the presumed downward trending cost-based level compared to the alternative of adjusting rates by inflation. As evidence-based regulator, the standard must be for Ofcom to test the validity of any hypothesis that underpins any consequential decision it makes. To date Ofcom's modelling has set both the new LRIC based termination rate with price adjustment over the review period, through indexation. In order to act reasonably, Ofcom must establish based on evidence a rationale for departing from its past practice. That rationale must be supported by evidence that the costs of providing call termination have fallen in recent years and will continue to do so over the review period. This evidence is totally absent in the Consultation and an assertion about the future path of costs is insufficient to withstand profound and rigorous scrutiny.

Furthermore, we observe that Ofcom considered only two options: keeping TRs constant in nominal terms and indexing them by inflation. Whilst these are major options, Ofcom could have identified available options more broadly and could have assessed them against what it aims to achieve (which it has not been sufficiently clear on) and with regard to the risk of setting TRs that diverge from underlying LRIC. Instead, Ofcom provisionally concluded on its preferred approach based on a review that is solely driven by an assertion and totally unclear about assessment criteria.

Ofcom uses the same argument (and virtually the same text to justify its proposal) for WCT and MCT though circumstances and developments plausibly differ between fixed and mobile. Deciding on an approach to setting TRs (including but not limited to adjustment over time) requires having regard to the specific context for both WCT and MCT.

The aim must be to set TRs conservatively to manage the adverse effects from setting TRs too high or low relative to underlying LRIC. The level of uncertainty around estimates is a factor to account for as greater uncertainty means elevated potential for divergence between estimates and underlying costs. At this review, uncertainty is particularly substantial as TRs are effectively set based on estimates from at least five years ago with no adjustments made for potential changes in delivery of call termination and its costs. This must be accounted for in how LRICs are set.

On the same day that it published its call termination review Consultation, Ofcom disclosed its decisions of its 2025 ALF review. As part of its approach to setting ALFs, Ofcom decided to apply inflation backwards and forwards based on its view that the market value of spectrum increases in line with inflation. Given the divergence in approach to potential adjustment, the question must be asked why Ofcom adjusts for inflation in setting ALFs but is not minded doing this for TRs?

Ofcom explained in its 2025 ALF Statement that the market value of spectrum likely depends on: “a) *the additional profits the MNO could generate through increased coverage, capacity and higher quality services if it had the additional spectrum; and/or b) the avoided network costs required to achieve similar coverage, capacity and quality without the additional spectrum.*”⁴

Ofcom had argued at its ALF Consultation that both the avoided network costs and operators’ profits are likely to broadly increase in line with general inflation. At its 2025 ALF Statement, Ofcom reiterated this view informed by a limited review of revenue and profits evidence (though not finding it to support its hypothesis of spectrum values increasing by inflation). Notably, Ofcom did not analyse evidence of potential changes in network costs. We explained in our letter of 18 September 2025 that Ofcom provided inadequate evidence and justification for its decision to adjust for inflation in setting ALFs.

Whilst this Consultation response does not further comment on the approach adopted by Ofcom in its ALF decisions, we bring it in for two reasons. Firstly, it establishes a pattern of Ofcom using a hypothesis of how an economic variable changes over time to adjust values of this variable without validating this hypothesis to the standard expected from a reasonable regulator. Secondly, Ofcom in setting out its proposals on TRs had regard neither to its decision to index ALFs by inflation on a forward basis nor to its own regulatory precedent of indexing TRs to inflation. Either is a deficiency, both point to a serious flaw in how Ofcom conducts its work.

We recognise that relevant costs differ between ALFs and TRs: avoided mobile network costs when being able to use more spectrum for ALFs vs the incremental costs of providing voice call termination for WCT and MCT. But changes in conditions (e.g. rising inputs costs) plausibly have a similar effect on relevant costs in either area. At a minimum, it is incumbent on Ofcom to reconcile its TR proposal based on an assertion of falling costs with its ALF indexation approach based on a hypothesis of relevant costs increasing by inflation. The absence of this explanation is notable but logically a result of the absence of evidence that underlies Ofcom’s proposed approach for TRs.

In its ALF decision, Ofcom concluded that spectrum costs have increased and will continue to increase in line with inflation. As spectrum is an input for how the LRIC for MCT is modelled, this suggests that at least one input to mobile call termination is more likely to rise by inflation as opposed to staying constant in nominal terms.

⁴ See paragraph 3.63 of Ofcom’s [Statement Review of Annual Licence Fees](#).

Ofcom reported declining volumes for fixed voice calls in Figure 3.1 of its Consultation. All else equal, a reduction in volumes imply that incremental costs must be recovered over a smaller base requiring a higher contribution per call minute. Another factor that is not consistent with Ofcom's assertion of call termination LRIC falling in nominal terms as Ofcom suggests. Moreover, the fall in volumes mean that departing from precedent become less proportionate as fewer consumer benefits arise when TRs remain lower than they would be in the alternative whereas the adverse investment impact remains.

Finally, forecasts of future data volumes on mobile networks have changed in recent years. Ofcom, in its 2025 ALF Statement, acknowledged that actual growth in demand for mobile data since 2021 has been lower than was expected at the time.⁵ This is relevant both to spectrum valuation in deciding on ALFs and to the incremental costs of MCT in setting mobile TRs. Reduced mobile traffic projections make it likely that the allocation of costs as between voice and data has also changed since the last review (with voice plausibly making up a larger part of network use than envisaged in early 2021). As Ofcom fails to assess the impact in the model, it cannot determine whether this effect means that the cost allocation to MCT will rise or fall. This is precisely why an assertion about the future path of costs is a poor one, and insufficient to withstand review.

We support continuation of the reciprocity conditions but more time is needed for a wider definition of international calls to be implemented

At 2021 WFTMR, we supported the introduction of the reciprocity conditions to regulate termination of international calls by UK providers. These conditions aim to promote reciprocally low termination rates by giving UK providers greater pricing flexibility for terminating calls that originate overseas. This could support outcomes that are beneficial to both overseas callers to UK numbers and the UK recipients of such calls. As shown by Ofcom in Annex A7, evidence suggests that conditions have delivered against the objectives that Ofcom had identified at the time of introduction as mutual termination rates have generally not increased. As such, we are comfortable with the proposed continuation of these conditions to regulate international calls.

Our views on Ofcom's proposals for application of the reciprocity conditions are mixed. We welcome proposals that specify what UK providers can do both when overseas providers do and do not provide a reciprocal service. But, for reasons set out below, we are concerned about the

⁵ See paragraph 4.53 of Ofcom's 2025 Statement Review of Annual Licence Fees.

proposal to define international calls to include roaming in UK calls (though more in relation to timeline for implementation than the proposal itself). Additionally, we want to take the opportunity to set out our expectation on payment arrangements between UK donor and recipient providers where it concerns the termination of international calls to ported numbers.

We support several proposals and clarifications

When the overseas provider does not provide a reciprocal service

Ofcom explained that the current reciprocity conditions give rise to an implementation issue because they more clearly apply when UK and overseas providers supply equivalent services. To address this gap, Ofcom proposed that UK providers must cap the TRs they charge at the level of the overseas regulated rate for the relevant services (if available) in circumstances in which no reciprocal service is provided. Whilst our exposure to this issue as a converged operator is limited, we recognise that the proposal brings clarity where this currently missing.

When the overseas provider supplies a reciprocal service

We support the proposal that allows UK providers to set TRs for overseas calls by reference to the regulated rate that apply to calls from overseas countries as opposed to individual providers from such countries. The additional flexibility that this proposal gives to UK providers can aid them in negotiating rates with overseas providers.

International calls with malformed, incomplete or invalid CLIs

The latest version of Ofcom's CLI guidance clarifies that the UK provider at the first ingress point is expected to identify calls originating overseas without valid CLI and to block, except in specified scenarios, calls from overseas that display a UK CLI. We welcome Ofcom bringing attention to this guidance as UK providers acting in compliance with it benefits UK telecoms consumers.

But we are concerned about proposals that can impact in circumstances in which multiple UK providers are involved in the delivery of international calls

Defining international calls to include calls to UK numbers by overseas roamers in the UK

These calls are currently not defined as international calls. This meant that UK providers to date have regarded them as domestic calls applying UK TRs for termination. This provided helpful clarity for UK providers involved in the delivery of such calls whether as roaming partner or as terminating provider. As this worked well, we did not anticipate Ofcom to make a proposal that would affect this

status quo by explicitly defining such calls as international calls. The effect of this proposal will be that the reciprocity conditions will apply to termination of such calls implying that UK providers are permitted but not obliged to apply surcharges for call termination.

In analysing this proposal, Ofcom had regard to the overseas provider that has the roaming individual as its customer and the UK provider that terminates the calls to UK numbers under its control. But this overlooks that two UK providers can be involved in the delivery of such calls: the roaming partner that interacts with the overseas provider and the terminating provider. A change in definition will introduce complexity as UK providers involved can differ in application of surcharge to termination of international calls.

It is instructive to distinguish between three situations:

1. the roaming partner applies UK TRs whereas the terminating provider applies and wants to get paid surcharges;
2. the roaming partner applies surcharges whereas the terminating provider does not; and
3. both roaming partner and terminating provider apply either surcharges or UK TRs.

We restrict attention to the first two situations as that is where complexity can arise. In the first situation, the roaming partner does not collect surcharges from the overseas provider but the terminating provider can insist on being paid the surcharges that it would normally levy on international calls that it terminates. In the short term, the proposal's impact would be that the roaming partner would incur a loss as it would have to pay surcharges to the terminating provider whilst it did not collect surcharges from the international provider. On the longer term, the roaming partner may be able to mitigate incurring a loss but this could [CONFIDENTIAL] require investment in billing systems to support application of variable TRs and potentially re-negotiation of roaming agreements with international providers.

In the second situation, the roaming partner applies surcharges and the terminating provider can ask for the settling payment between the two UK providers to include these surcharges. There is no harm in this situation as long as the terminating provider can request to be paid the surcharges collected by the roaming partner. This can be left to commercial arrangements between UK providers involved.

Ofcom has not considered the complexity that arises in the first situation in which the roaming partner is not able to collect surcharges yet the terminating provider insists to be paid surcharges.

This complexity is relevant to the potential merits of changing the definition and to the time that is given for UK providers to accommodate for this change taking effect.

Absent a specified timeline for the proposed definition to take effect, we assume that Ofcom proposed to make the change from 1 April 2026 when decisions from the Call Termination Review would take effect. This will not give providers the time required to mitigate the exposure described above.

Moreover, our role in the delivery of roaming calls is changing in a way that is highly relevant to this proposal. Our plan is to solely use VoLTE to manage roaming calls from [CONFIDENTIAL], with migration from legacy to new delivery already in full swing. When using VoLTE, roaming calls are delivered as data (as opposed to voice calls) with the overseas provider managing delivery of calls made by its roaming customers. This change in delivery will alter our involvement in the delivery of calls made by roamers on our network. We supply the data that supports calls but overseas providers manage the calls and liaise with UK terminating providers directly.

The proposed definitional change would come in only [CONFIDENTIAL] from when we plan to complete our migration to VoLTE for delivery of roaming calls. Requiring VMO2 to implement changes to the charging of roaming calls on a legacy platform, [CONFIDENTIAL], would be disproportionate versus the expected benefit to (foreign) consumers. Especially so, when implementation costs can be avoided when offering a reasonable timeline for the new definition to take effect.

We estimate conservatively yet based on imperfect data that the proportion of roaming calls on the VMO2 network delivered over VoLTE has increased from [CONFIDENTIAL] in early 2024 (with the remainder delivered over legacy route) to [CONFIDENTIAL] in the summer of 2025. As the migration towards VoLTE delivery will continue, we project that [CONFIDENTIAL] will be delivered over VoLTE when the definitional change takes effect in April 2026 rapidly increasing in subsequent months until we deliver all roaming calls over VoLTE in autumn 2026.

Our migration to VoLTE delivery is driven by switch-off of legacy networks which other UK mobile operators are also working through. It is thus highly likely that other operators will also migrate to delivery of roaming calls over VoLTE over the coming review period.

Given the identified development and its relevance to the proposed definitional change, it is incumbent on Ofcom to analyse the transient and rapidly diminishing benefits and certain costs of this change and to assess the merits of delayed implementation. This would require Ofcom to

gather data from mobile operators about their plans regarding delivery of roaming calls and the role of VoLTE in such plans. Only this would allow Ofcom to reach an informed view of proportionality of its proposal, both at all, and if implemented after a certain date (i.e. when allowing operators to first migrate to VoLTE delivery or to otherwise mitigate the impact of its proposal).

International calls to UK geographic numbers that have been ported

In response to a question from a stakeholder, Ofcom explained that issues deriving from application of varied surcharges to termination of international calls to UK geographic numbers that have been ported are best addressed by commercial arrangements between donor and recipient provider.⁶ It is clear that reciprocity conditions apply to such calls. We agree that commercial arrangements allow donor and recipient providers to agree on payment and other terms to support delivery of international calls to such numbers.

It is important to be clear about expectations on what arrangements between UK providers must contribute to. Ofcom plays its part by explaining that GC B3 does not set the payment model for such arrangements.⁷ The “donor passes all” model in the mobile industry provides a useful reference point. Under this model, the recipient provider must be paid the termination rates levied by the donor provider less a donor conveyance charge for termination of calls to ported numbers. This allows the donor provider to collect termination rates in line with its agreements with international providers, remunerates for its role in call delivery yet prevents it from making a profit at the recipient provider’s expense.

We hold the view that commercial arrangements in fixed must deliver similar outcomes. That is, donor providers must be allowed to collect surcharges on incoming international calls (or not if they choose to) and be compensated for their role in call delivery but they also are obliged to pass on any termination charges collected from international providers upon the request from recipient providers. The latter means that the recipient provider must be paid surcharges when these are collected by the donor provider but not otherwise.⁸

⁶ See paragraph 5.113 of Ofcom’s [Consultation: Reviews of Call Termination Markets and End-to-End Connectivity Condition](#).

⁷ See paragraph 5.112 of Ofcom’s [Consultation: Reviews of Call Termination Markets and End-to-End Connectivity Condition](#).

⁸ This implies that the donor provider neither gains nor loses financially from its involvement in call delivery to ported numbers.

We support retaining the network access obligation for all WCT providers and the additional requirements that apply only to BT

Ofcom proposes to retain the current SMP conditions that require all WCT providers to offer network access on reasonable request, and on fair and reasonable terms (including charges except where a charge control applies). Absent this requirement, WCT providers could have the ability and incentive to refuse access to their network or to offer access on unreasonable terms. That could harm the ability of originating providers to compete for retail customers as their customers could be restricted in who they can call and at which terms. We agree that retaining this condition will help to ensure that all originating providers can offer their customers end-to-end calls to all geographic numbers in the UK. It benefits stability when (as proposed) no changes are made to Ofcom's definition of this condition or how it is met by providers in practice. We support Ofcom's provisional finding that retaining this condition is sufficient to address the risk in relation to WCT providers other than BT but that additional remedies are needed for BT (as discussed below).

Ofcom proposes to retain the additional requirements brought in to address Ofcom's deeper competition concerns with regard to BT. This includes the obligation for BT to provide associated facilities on fair and reasonable terms, the 'no undue discrimination' obligation, and the various transparency requirements that apply to BT. We agree that BT's market position continues to warrant that these additional requirements are retained.

With regard to transparency requirements, we note this involves BT having the obligation to publish a reference offer, to notify changes in its charges (excluding WCT charges) and to publish Quality of Service information on provision of interconnection as directed by Ofcom. It is important that these requirements are retained as they ensure that BT acts in a way that does not harm or disadvantage other market participants.

Whilst requiring BT to publish Quality of Service information on its performance on service provision and fault repair for the facilities associated with WCT is essential, we are concerned that this is not sufficient as BT's obligations regarding quality of service and the KPIs are not strong enough. In particular, we consider that BT's performance with regard to timely repair of network faults has been below the level that its wholesale customers expect. In the absence of specific SLAs or KPIs that cover this performance area, BT uses a "best-efforts" approach. This has led to situations where it took multiple weeks for faults to be repaired which is particularly problematic where faults are linked to ported numbers. The untimely repair implies that faults are not addressed. This can lead to donor providers not being able to meet their network resilience obligations when faults lie in

the Openreach network and can only but are not being effectively addressed by BT. As none of the current KPIs relating to IP interconnection cover fault repair, it could be justified to introduce an additional KPI that specifically monitors Openreach's performance on this important area and that promotes timely repair of faults.