Response to MTTR consultation

30/08/2023

1. Summary

1.1.   Openreach welcomes this opportunity to respond to Ofcom's consultation on Quality of Service for Ethernet and Dark Fibre (the **Consultation**).[1] The Consultation follows from a proposal made by Openreach (the **Initial Openreach Submission**)[2], developed in collaboration with our customers, which arose from a change in the mix of fault types. Our proposed change would benefit our leased line customers, through alignment with industry standard metrics, providing a clearer understanding of underlying performance, better incentives to fix all faults included in the measure as quickly as possible, and an incentive for Openreach to continue to reduce the volume of easier-to-fix faults. Benefits to leased line customers, in turn improve the services that they can offer to end-consumers.

1.2.   While we welcome Ofcom's engagement with our proposal, the modifications contained within Ofcom's proposal mean that the change would no longer meet the objectives we and our customers intended, especially around our incentives to further reduce easier-to-fix faults. We therefore strongly advocate that Ofcom reconsiders its proposal and adopts instead the alternative version on which it has consulted. In our response below, we set out how this version can be made workable and provide further evidence to support why this alternative design works better for our customers.

1.3.   We welcome Ofcom's acceptance that a change in the fault mix, driven by work we and our customers have done to reduce the volume of easier to fix faults, justifies a change to the current QoS Standard. We also welcome the proposal to move from an On-Time Repair (OTR) Standard, to a Mean Time to Repair (MTTR), although we have serious reservations about its calibration.

1.4.   We also continue to believe the inclusion of Matters Beyond Our Reasonable Control (**MBORC**) in Ofcom's proposed MTTR measure is not workable, especially when coupled with the removal of customer faults. Including MBORC faults within a MTTR QoS measure, leaves the measure susceptible to severe volatility from MBORC events (as recent experience has vividly shown). Complex network faults, such as sub-sea cable damage and other major network damage, have long duration repair times and their

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[1] Ofcom, 'Quality of Service for Ethernet and Dark Fibre: Proposed modifications to Quality of Service Directions and related Key Performance Indicators for Ethernet and Dark Fibre repairs', July 2023.
[2] Letter from Openreach to Ofcom, dated 6 February 2023. See, The Consultation, Annex 1.

inclusion in a MTTR measure unduly distorts it. This is exacerbated by the exclusion of customer faults.

1.5.   The impact of MBORC faults is materially different within MTTR than within the current OTR measure. This is a mathematical feature of MTTR compared to OTR. With a measure like OTR, an individual fault affects the overall measure by at most its proportion of total faults (e.g. if there were 100 faults, an individual fault can at most shift our outturn performance by 1%). However, with a MTTR measure there is no limit on the potential impact of extreme duration faults.

1.6.   This is not just a theoretical risk but is in fact demonstrated by some of the faults we experienced during the first part of 2023/24. MBORC events in the Highlands and Islands, meant that a small number of circuits had repair times of thousands of hours (several months). If included within Ofcom's version of MTTR, they would push the year-to-date MTTR performance close to 10 hours. We expect this would even out to some extent over the course of the year, but remain distortedly high and above Ofcom's proposed Standard. We would therefore fail the Standard. This is not the case with the current measure, where the impact of these MBORC events is substantially lower, as demonstrated by the fact that we are meeting the current OTR measure YTD ([✂] performance vs 94% Standard). It is hard to see how moving to a measure that if in place today we would fail is a sensible way forward for Openreach, industry or Ofcom.

1.7.   While the MBORC events in the Highlands and Islands this year were severe and had a very large impact on the MTTR measure, MBORC events have also had a large impact on the MTTR in previous years, accounting for 20-40% of the total MTTR time (see Figure 3). Further, the incidence of MBORC events is increasing (see Figure 7).

1.8.   Ofcom's proposed measure also undermines our incentives to innovate proactively to reduce the volume of easier-to-fix faults, which was one of the original rationales for our proposal.[3] With the distortionary effect of MBORC included in the measure, perversely Openreach would have an incentive to have as many 'easier-to-fix' electronic faults as possible, to increase the size of the denominator and stabilise the MTTR measure. The effect is amplified in this case because of the greater variation in repair times with MBORC included.

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[3] Initial Openreach Submission, p7-11.

1.9. Given the above, Ofcom's proposal is unworkable and does not meet the objectives for the change as proposed by Openreach and its customers. Ofcom acknowledges in its consultation that the current standard is becoming harder to meet and that it is appropriate to make a change to address this.[4] It is therefore irrational and disproportionate to propose moving to a measure that will in fact be harder for Openreach to meet (as explained above). The proposal fails Ofcom's own legal tests in relation to objective justification and proportionality:

> - It is not Ofcom's objective to strengthen the current repair standard, in fact the opposite, it is to ensure that recent and ongoing improvements to the customer repair experience do not make it harder for Openreach to meet the repair standard.[5]

> - It is not proportionate to the objectives Ofcom has sought to address.[6] In fact the opposite, Ofcom has proposed a standard which is much harder for Openreach to meet, and which Openreach would not be able to meet were it to be applied for the year ending March 2024,[7] an impact that could arise in other years.

1.10. While we believe that MBORC should be excluded from the MTTR measure, we recognise the importance of Openreach continuing to address MBORC faults as effectively as possible. Ofcom acknowledges that it has not seen any evidence of Openreach gaming MBORC declarations. We have robust governance processes in place and contractual commitments to customers. Further, we have proposed to continue to report on MBORC in our KPIs, thus allowing Ofcom (and CPs) to transparently monitor how we respond to these fault types. Customers are also able to monitor our MBORC declarations and can challenge these if they consider them inappropriately called.

1.11. Finally, instead of seeking to maintain a consistent approach between the existing QoS standards[8], excluding MBORC from the MTTR could be viewed as a pilot/test, which could be taken into account in Ofcom's consideration of any future QoS Standards at the next market review. This would be in-line with Ofcom's statements that it is open to

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[4] Consultation, para 2.8.
[5] Consultation, para 2.37.1
[6] Consultation, para 2.37.3
[7] We acknowledge that Ofcom has proposed a compliance window that would start from the date of issuing a new Direction, and hence faults cleared in the year-to-date would not count in an initial compliance period. Nevertheless, we consider they illustrate the risk we would face under the measure, since equivalent faults could occur in any compliance period.
[8] Consultation, para 2.16

considering a new or revised approach to QoS, developed in conjunction with our customers, for the next market review. As noted above, we developed this proposal to change the leased lines repair QoS Standard in discussion with our customers, including at industry fora, such as the Ethernet Service Forum. Therefore we consider that Ofcom should exclude MBORC from the MTTR.

1.12. We believe that the viable alternative to including MBORC in the measure, is Ofcom's alternative consultation option (in-line with our original proposal), to exclude MBORC. Openreach welcomes this option which would allow us to be held to account for the faults that we can to some extent control and which are informative about the overall performance of the network.

1.13. As well as determining the form of the QoS metric and the types of faults that should be included within it, Ofcom must also determine the level at which to set the Standard. The Consultation sets out a proposed level of the Standard for versions of MBORC including and excluding MBORC, namely Ofcom proposes:

- for MTTR incl MBORC and excl customer faults, a Standard of **3h50mins**; or

- for MTTR excl MBORC and customer faults, a Standard of **2h40mins**.

1.14. We consider that each of these two levels are insufficiently low.

1.15. Ofcom must set any revised Standard at a level which is appropriate for the remainder of the WFTMR21 market review period (until March 2026). In doing so, it needs to account for underlying trends that affect repair times and consequently QoS performance. It should also ensure that any level it sets does not disincentivise Openreach from continuing to innovate to reduce faults.

1.16. The specific reasons demonstrating the need for a higher level are:

1.16.1. Upward trend in MTTR (paragraphs 4.8-4.14 and 4.19-4.21) – Changes in the underlying fault mix (due to reductions in electronic faults) and in average repair times for different fault types due to component complexity and network congestion are tending to increase the overall MTTR.

1.16.2. Incentives to reduce faults (paragraphs 4.15 and 4.22) – The measure must be set at a level which doesn't disincentive reductions in the quickest to fix faults. Since fibre faults have longer repair times than electronic faults, any

Standard set below the fibre fault average duration has the impact of disincentivising reducing electronic fault volumes.

1.16.3. Variance and unpredictable events which impact a measure including MBORC (paragraph 4.7) – As demonstrated by faults experienced this year, long duration faults can cause the MTTR metric to be much higher than seen in previous years. Ofcom should take account of this recent data in setting the Standard.

1.17. We describe the impact of each of these on both of Ofcom's proposed versions of MTTR in Section 4. Taking account of the above, Ofcom should increase the level of the Standard for either of the versions of its proposed measure.[9] An increase is needed to give a reasonable prospect of compliance, while still being a high standard that would serve customers well.

1.17.1. If Ofcom determined that it should proceed with an MTTR measure including MBORC, the level of the Standard that it proposes should be set at least between 5h50 and 6h20 to give a reasonable prospect of achievability. We emphasise that even at this level there is a material risk that a small number of large MBORC faults would cause Openreach to breach this level. Further, because of the variability of MBORC events, the metric itself would be of little value for the purposes of measuring ongoing performance.

1.17.2. If Ofcom determined that it should proceed with an MTTR measure excluding MBORC, our strongly recommended preference, the level of the Standard that it proposes should be set at least between 3h30 and 4h00.

1.18. In summary, Openreach would support Ofcom in making a Direction to modify the QoS Standards to a version of MTTR that excludes both customer faults and MBORC faults and was set at a reasonable level.

1.19. While Openreach does not support a move to a QoS Standard that is MTTR excluding customer faults and including MBORC faults, however, if Ofcom is minded to proceed with that approach, we consider that it should, at least:

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[9] We note this is on the assumption that current internal processes and procedures that affect QoS (such as stop-the-clock) continue.

1.19.1.   substantially increase the level of the Standard to allow for the potential impact of MBORC;

1.19.2.   acknowledge that any future investigation into any miss of the Standard will carefully consider the role of MBORC events in any miss; and

1.19.3.   commit to reconsidering the impact of MBORC, and QoS in general, at the next WFTMR26.

1.20.   Openreach will need to consider its position in light of Ofcom's final decision. We note above the reasons that motivated our original request to change the Standard including a concern that the increased elimination of simple to fix faults meant we were at a growing risk of missing the metric even though our underlying service performance has been improving. There seems little logic, however, of moving to a different measure if our risk of failing that is also high and if the customer benefits outlined here are not achieved.

1.21.   We set out the reasons and evidence for our views in this response in more detail in the remainder of our response and address each of Ofcom's six consultation questions.

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2. The need for a change (Question 1)

2.1. Ofcom has set a number of QoS Standards to ensure that Openreach delivers the QoS that Ofcom has determined customers need.[10] In respect of the leased lines access market, the Standards cover metrics relevant to the provision and repair of leased lines. They apply to ethernet services in the Leased Lines Access Area 2 and ethernet and dark fibre in Leased Lines Access Area 3, but not in the High Network Reach area or Central London Area.

2.2. One of the standards covers the repair of services when faults arise. As part of the WFTMR21 Ofcom mandated that Openreach must fix 94% of faults within the SLA repair time.

Rationale for a change

2.3. As we set out in the Initial Openreach Submission to Ofcom, Openreach and its customers have undertaken work to improve service assurance, network problem management and network health[11] and this has resulted in changes to the mix of different fault types that arise. These changes in the fault mix mean that the relative volumes of each fault category has changed and performance against the current QoS Standard does not reflect the improvement achieved by the above initiatives. It is becoming increasingly difficult for Openreach to meet the current Standard, despite a decline in total faults (see Figure 7) and Openreach providing high service standards generally. These high service standards underpin our high customer satisfaction levels as demonstrated by our continued strong Net Promoter Scores (+50.9, 12 month rolling average, in July 2023).

2.4. For the reasons, set out in the Initial Openreach Submission and summarised by Ofcom in the Consultation (section 2), we agree that it is appropriate to make a change.

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[10] Wholesale Fixed Telecoms Market Review 2021, Volumes 5 and 7.
[11] The Consultation, Annex 1, pages 8 and 9.

> **The Consultation, Question 1**: Do you agree that the fault mix on relevant Ethernet and Dark Fibre products has changed significantly enough to justify a change to the OTR minimum standard in the markets for the supply of LL access in LL Access Area 2 and LL Access Area 3, and the market for the supply of IEC in BT only and BT+1 exchanges? Please provide evidence to support your views.
>
> **Openreach response**: Openreach agrees that the changes in fault mix are significant enough to justify a change to the OTR quality of standard as described and evidence in our original proposal (Annex 1 to the Consultation).

An alternative metric

2.5. Having identified the need to make a change to the status quo, Ofcom describes in its consultation its leading option of a change to the metric from OTR to MTTR. In its consultation it describes two variants of MTTR (including and excluding MBORC) and also considers but rejects (paragraph 2.10) a revision to the current OTR standard. The range of options are summarised in Figure 1 below.

Figure 1   Illustration of proposals

	Measure	Faults included	Standard
Current measure	On-time repair	All faults	94% on time (within 5 hours)
Our proposal	MTTR	Excl. Customer Excl. MBORC	Mean =< 5 hours
Ofcom's leading proposal	MTTR	Excl. Customer Incl. MBORC	Mean =< 3 hours 50 mins
Ofcom's alt. MTTR option	MTTR	Excl. Customer Excl. MBORC	Mean =< 2 hours 40 mins

(The last two rows are bracketed as "Ofcom's consultation".)

2.6. Openreach supports Ofcom's desire to make the change to MTTR, but is supportive of the change being made to MTTR excluding rather than including MBORC.

3. MBORC should be excluded (Questions 2 and 3)

3.1. MBORC are specific circumstances where Openreach's normal operational abilities are affected by force majeure events. MBORC faults arise for a range of different reasons including extreme weather events, criminal damage, traffic accidents and other third-party actions. The nature of these faults is such that they occur less frequently than other fault types but can be more severe and challenging to address.

3.2. We do not believe the inclusion of Matters Beyond Our Reasonable Control (**MBORC**) in Ofcom's proposed QoS measure is workable. We do not consider it appropriate to include them within a new QoS Standard and to set the level at which Ofcom has proposed and Ofcom would fail its legal tests by doing so (see section 5).

3.3. Instead, we support Ofcom's alternative proposal of an MTTR measure that excludes MBORC and customer faults. MBORC incidents would continue to be addressed and subject to the same controls described in paragraphs 3.25-3.33, just not included within the QoS measure. Ofcom could use this change as a form of pilot ahead of its stated openness to revising the broad approach to QoS at the next market review.

The impact of MBORC on MTTR

3.4. MBORC faults are included within the current OTR QoS Standard and affect our performance against that measure. However, the impact of their inclusion is materially different if they are included in the MTTR measure, such that it is inappropriate to retain them within the measure if a change to MTTR is made.

MBORC unduly distorts MTTR

3.5. Including MBORC faults within a MTTR QoS measure, leaves the measure susceptible to severe volatility from MBORC events. Complex network faults, such as sub-sea cable damage and other major network damage, have long duration fixes and their inclusion in a measure unduly distorts it. This is exacerbated if customer faults are also excluded, because the high volume and relatively fast resolution times of those faults would otherwise have a counterbalancing effect on the distortion from MBORC.

3.6. MBORC's distortion on MTTR is a mathematical feature of the measure compared to OTR. With a pass/fail measure for each fault like OTR, each individual fault can shift the outcome by at most its proportion of total faults (e.g. if there were 100 faults, an individual fault can at most shift our outturn by 1%). However, with a MTTR measure

there is no limit on the potential impact of extreme duration faults. Table 2 below illustrates a hypothetical example where the impact of MBORC affects MTTR more than OTR, such that in this scenario we would be compliant with an OTR Standard of 94% but not an MTTR standard of 3h50mins (or 5hours).

Table 2   Illustration of impact of MBORC on average

	MBORC faults	Other faults	Overall
Number of faults	5	95	100
Average resolution time	120 hours	2 hours	7.9 hours
Number fixed in SLA	0	94	94
OTR incl MBORC	0%	99%	94%
OTR excl MBORC	-	99%	99%
MTTR incl MBORC	120 hours	2 hours	7.9 hours
MTTR excl MBORC	-	2 hours	2 hours

Note: Values do not correspond to actual data, they are provided for illustration only.

3.7.   Table 2 above was purely illustrative, but the impact of a small volume of MBORC faults accounting for a large proportion of the total repair time can be seen in Figure 2 below. It shows, that for 2023/24 year-to-date (to 7 August) MBORC faults (shown as incident in the chart) accounted for [✕] of the total repair time, but only [✕] of the total fault volumes.

Figure 2   Proportion of repair time and repair volumes by fault type (2023/24)

[✂]

Note: Covers only faults which are QoS relevant, service affecting, closed and managed by National Operations Centre. Incident corresponds to MBORC. Minutes are 'Calculated Clock Time'.

3.8.   While this feature is pronounced during 2023/24, the overall pattern has been present in each of the last four years, with total time attributed to incident accounting for a far higher proportion of overall time than the proportion of their volumes, see Figure 3 below. Figure 3 shows each fault types (excluding customer) proportion of total fault volumes and proportion of total repair time. These represent the weighting of each type within an OTR and MTTR measure respectively.

Figure 3   Proportion of repair time and repair volumes by fault type (2020/21 - 2023/24)

[✂]

Note: Covers only faults which are QoS relevant, service affecting, closed and managed by National Operations Centre. 2023/24 full-year data is based on actual data to 7 August 23 and 2022/23 data for the remainder of the year. Incident corresponds to MBORC. Minutes are 'Calculated Clock Time'.

3.9.   This feature matters because an MTTR that includes MBORC will be primarily weighted to MBORC events. This undermines the usefulness of the measure in two ways.

3.10.   First, QoS standards play their part in improving customer outcomes by providing an incentive to Operational teams to improve metrics that are relevant to customer service. The inclusion of MBORC in this metric ceases to provide such incentives since any initiatives to improve relevant faults will be invisible against the distortionary impacts of MBORC. This could mean that more customers experience delays in repairs if MBORC related faults are unduly prioritised.

3.11.   Second, this measure does not provide an accurate representation of overall performance against faults across the network more broadly. For customers, and for Ofcom, the measure would provide little value, especially since they will likely already be aware of long duration MBORC events.

3.12.   The large weight of MBORC events in this metric also demonstrates that the impact of MBORC in MTTR is materially different to the impact of MBORC in OTR as considered in

Ofcom's BCMR16, BCMR19 and the WFTMR21. In these market reviews, Ofcom stated that faults subject to MBORC are not inherently variable or unpredictable.[12] In making this Statement, Ofcom was focused on the volume and proportion of these faults. We submit that this view is factually incorrect when considering the impact of MBORC as a proportion of total repair time, as shown in Figure 2 above and by this year's events described below.

MBORC events this year

3.13. The distortionary impact of MBORC is not just a theoretical risk but has been demonstrated by the faults we experienced during the first part of 2023/24. We have experienced a number of complex faults arising from factors outside our control that have been extremely challenging to resolve. Box 1 below provides some details on an incident in the Highlands and Islands of Scotland.

Box 1: MBORC faults in the Highlands and Islands in 2023

At the end of January 2023, a subsea cable was damaged when it was torn from the sea floor between the Orkney islands and the Scottish mainland. The exact cause is unclear, it may have been heavy seas or potentially caused by a third party trawler. This incident impacted multiple Openreach Network Extensions Services (ONES) circuits resulting in a loss of service for some CP customers. We declared the incident as a MBORC ([✂]).

Repairs to subsea cables are particularly challenging due to the working environment and variable weather, wave and tidal conditions. In this case we required four consecutive days of calm conditions. In the meantime, engineers worked to reconnect customers – including critical infrastructure and emergency services – through temporary routes. CP customers and the Orkney Islands Council were kept informed throughout the incident.

After several months of planning, we were able to lay a new subsea cable in May 2023 and services were restored.

[✂]

3.14. The impact of these complex network faults is that the 2023/24 year-to-date MTTR excl. customer but incl. MBORC has been severely biased upwards. As of August, we

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[12] Ofcom, BCMR 2016, Final Statement, Vol 1, para 13.311.

calculated that our MTTR excl. customer but inc. MBORC close to 10 hours (see Figure 4 below). We expect this would even out to some extent over the course of the year but remain distortedly high and above Ofcom's proposed Standard. We would therefore fail the standard. This is not the case with the current measure, where the impact of these MBORC events is substantially lower, as demonstrated by the fact that we are meeting the current OTR measure YTD ([✂] performance vs 94% Standard).

Figure 4   The impact of MBORC faults in 2023/24
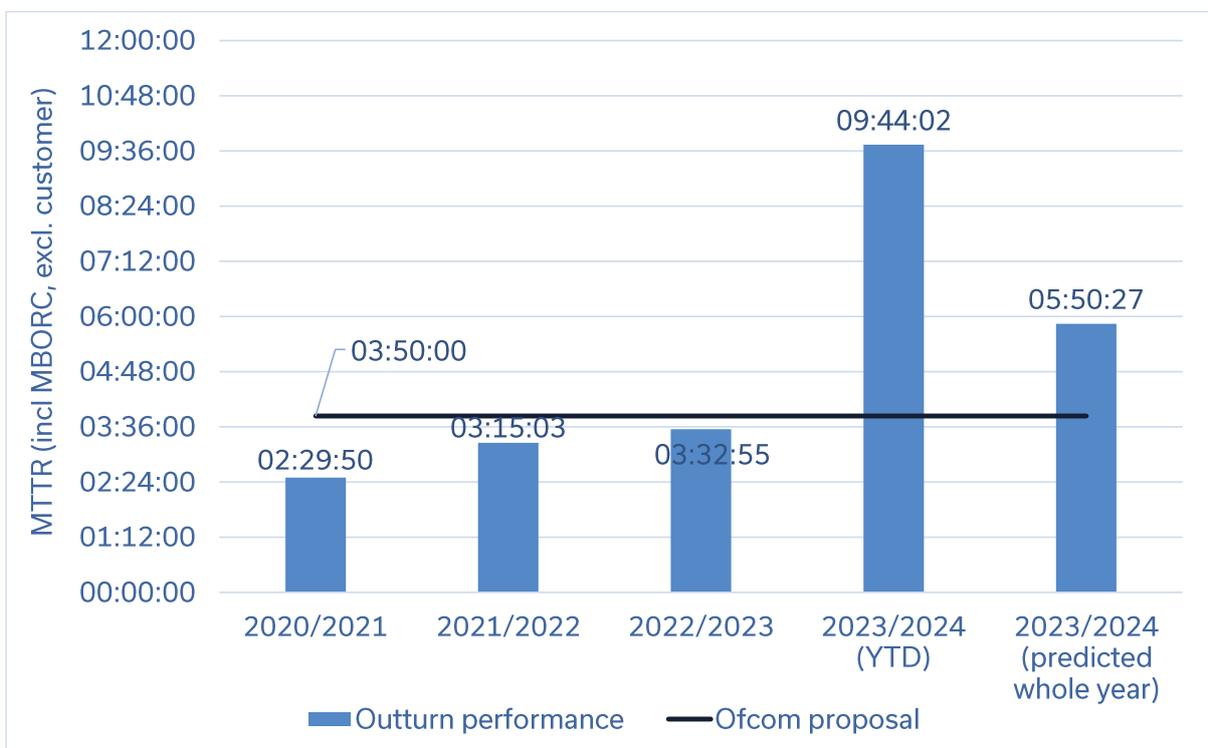
Note: Covers only faults which are QoS relevant, service affecting, closed and managed by National Operations Centre. YTD covers 1 April 2023 to 6 August 2023. Predicted 2023/24 data uses YTD actual data and data from 2022/23 for the remaining weeks.

3.15.   The data from this year illustrates that if Ofcom's proposed measure was in place now, we would fail the Standard. Therefore, the change proposed by Ofcom would make it extremely hard for Openreach or even impossible to meet the QoS Standard, which was not the intention of the proposal. Indeed, it would be a perverse change to make given that we are meeting the current OTR standard and yet would most likely fail the new MTTR standard. That cannot be an appropriate outcome nor Ofcom's intention, given it has acknowledged the work we have done to prevent faults.

MTTR is materially different to MTTP

3.16. There is precedent for a QoS standard which is an 'average' and includes MBORC, however the situation is materially different to MTTR. Ofcom has set a QoS Standard for the speed of our provisioning of leased lines services using the metric Mean Time To Provide (MTTP). The MTTP includes provisions that are delayed by MBORC. Like MTTR, the MTTP metric is also an average. Therefore, in theory it too can experience distortion from MBORC events. However, there are significant differences between provision and repair that reduce the scope for distortion in the MTTP compared to the MTTR.

3.17. First, provision journeys involve a range of activities from survey, planning and installation. As such MBORC events have less scope to affect provisions as some events would not affect some aspects of the order journey. Indeed, in practice we very rarely declare MBORC for the provision of leased lines services, which itself demonstrates their limited ability to distort the measure.

3.18. Second, the scope for distortion to the measure in provision is less than it is for repair, because the Standard is materially longer (38 days vs 5 hours) and the level of the extremes is lower. For example, the single longest provision in 2022/23 took [✂] days, which is [✂] above the standard. However, the longest repair took [✂] hours, which is [✂] longer than the 5 hour standard. A provision would have to take [✂] to be equivalently as far above its QoS Standard.

The level of MTTR cannot be easily set to account for MBORC

3.19. One possible response to the above impact of including MBORC in MTTR, may be to adjust the level of the MTTR QoS Standard with the intention of allowing sufficient headroom to cope with the volatility arising from MBORC. However, this is an imperfect response. The nature of MBORC events is such that we cannot easily identify a level that would give sufficient comfort that the Standard is achievable.

3.20. Any level will risk being breached by extreme MBORC events. For example, following 2022/23 a level of 5 hours may have seemed reasonable and achievable, but this would have been insufficient for 2023/24. If the headroom was increased to allow for this, there is no control to stop an equivalent but more extreme set of events leading to a breached level in 2023/24.

3.21. Increasing the level of the Standard does give more ability to cope with extreme MBORC events. While no level can guarantee ability to cope with them, higher levels decrease

the risk. But there is then a balance. For example, if the level was set at, for example, 20 hours, this would likely be sufficient in almost all reasonably foreseeable circumstances. However, setting the target at such a level would render the purpose of the QoS measure ineffective, since it would weaken incentives in 'business-as-usual' times.

3.22. We consider that if Ofcom was to proceed with this version of the proposal it should set the level of the Standard significantly higher, between 5h50 and 6h20mins (see paragraph 4.16). We propose that level because it would be sufficient to allow compliance in a year experiencing similar events to the current financial year (see Figure 4) and to account for underlying trends.

Excluding MBORC from the measure could be a pilot

3.23. The QoS obligations imposed on Openreach are imposed as part of the WFTMR21. At the next market review, Ofcom will review and consider whether these obligations remain appropriate. Ofcom has stated that it is open to reconsidering the approach to QoS at that market review, including in particular replacing Ofcom defined Standards with measures agreed by Openreach with its customers. We consider the original proposal tabled by Openreach in respect of MTTR represents such a proposal, agreed with our customers.

3.24. Excluding MBORC from the QoS measure would allow Ofcom to monitor the effect of the exclusion of MBORC and in so doing provide it with more information when considering the calibration of any continued QoS regulation at WFTMR26, e.g. it may demonstrate the feasibility of excluding MBORC for the next market review period. Relatedly, we do not believe that excluding MBORC for the leased lines repair measure would set any firm precedent for MBORC's treatment in other measures such as provision, since, as explained in paragraphs 3.16-3.18, it is not comparable to other measures.

Other processes already safeguard the appropriate use of MBORC

3.25. We understand that historically Ofcom has included MBORC within the QoS measurement because it considered there was a risk that Openreach may use MBORC declarations to address minor non-compliance issues with our minimum standards or to apply less rigor in its criteria for declaring MBORC.[13]

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[13] The Consultation, para 2.11.

3.26. These concerns should no longer be sustained. Ofcom itself states that it has not been aware of any concerns about Openreach's use of MBORC.[14] Further, as we explain below, other processes already support and ensure our appropriate use of MBORC, such that it is not necessary to include these events within the QoS Standard.

MBORC declaration process

3.27. Openreach has in place processes and governance to ensure that MBORC declarations are applied appropriately. There are processes for both major incidents (such as ongoing supply chain issues or region-wide extreme weather) that affect, or could affect, many circuits, and localised MBORC events (such as traffic accidents) that affect a defined and limited number of circuits.

3.28. Widespread MBORCs (e.g. those affecting one or more Openreach SAM patches), may initially be raised by Senior Managers/Executives (in either Service Delivery or FND). The application is reviewed against fixed criteria, including the request being in accordance with the contract. The outcome of the governance is shared and signed off by Managing Directors.

3.29. Local MBORCs (e.g. a traffic collision with a pole), are raised first by line managers within the Controls team (Service Delivery/National Operations Centre). Members of our Controls team can declare and sign-off MBORC for network attack, plant damage by non-Openreach contractors, PCP or pole damage in traffic accidents and lightning damage. An internal FAQs documents provides guidance on how to assess and categorise different types of incident.

3.30. Where MBORCs do occur, we communicate them clearly to our customers. There is a dedicated section of the Openreach customer portal through which customers can access information about MBORC incidents. This communication process is set out in the MBORC user guide that has been shared with industry and the OTA2.[15] Where the MBORC declaration is a major incident, SAM patch wide event daily updates are published, showing the status of metrics. This document also describes that there is a query process for CPs, should there be something they wish to query, and that if the CP does not agree with Openreach's response it should use the existing contractual dispute process.

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[14] The Consultation, para 2.15.
[15] Openreach MBORC Communication Process, June 2021.

Contractual and customer incentives

3.31. Openreach is focused on delivering good service for its customers and misusing MBORC would be harmful for our customer relationships and a breach of contract. Our contract for Ethernet services[16] sets out provisions around when and how we, or our customers, can declare force majeure. As part of this, we are obliged to use reasonable endeavours to inform the customers and to mitigate the consequences of the Force Majeure event. The contract also gives customers the right to challenge our declaration of Force Majeure through the escalation and dispute resolution process set out in the contract. If Openreach relies upon a Force Majeure event as a release from Service Level Agreement obligations, then a customer also has a right to dispute the declaration through independent verification, which includes, at the option of either party, the right for adjudication by the Office of the Telecommunications Adjudicator (OTA2).

KPIs which include MBORC will be retained

3.32. The factors above focus on the assurances that customers can take in application of MBORC. We believe further reassurance about our approach to MBORC will be gained through our transparent reporting of KPIs which cover MBORC events. In this way, both Ofcom and customers can monitor our performance in addressing these faults.

3.33. In our original proposal, we proposed to report KPIs on performance for all faults and for MBORC faults for both the existing OTR measure and the new MTTR measure (see Annex 2 to the Initial Openreach Submission). We continue to believe this is the right approach (see page 4 of the Initial Openreach Submission) and if adopted, will further strengthen our incentives in relation to addressing MBORC events.

A version of MTTR excluding MBORC is workable

3.34. In its consultation Ofcom also described a version of the MTTR with MBORC faults excluded.[17] This version is in-line with Openreach's original proposal. Openreach welcomes this option which would allow us to be held to account for the faults that arise from issues within our own network and which our customers are most interested in our response to. However, we consider that the proposed level of the Standard for this option is insufficient and discuss a more viable level in Section 4.

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[16] Contract for Connectivity Services Conditions, Isseue 21.0, 22 June 2023.
[17] The Consultation, para 2.27.

> **The Consultation, Question 2**: Do you agree with the proposal to continue to include MBORC in the measure? Please provide evidence to support your views.
>
> **Openreach response**: No. Openreach strongly rejects the proposal to include MBORC within a new MTTR QoS measure. Its inclusion would negate the benefits of moving to MTTR and leave Openreach in a position where its compliance with the QoS Standard was out of its hands and extremely difficult (or impossible) to achieve (and arguably in a worse position than retaining the current measure).

Customer faults

3.35.   The current QoS measure includes 'customer faults'. These are faults that have been caused by customer issues, such as faulty customer equipment. As such they are faults within customer estate rather than the Openreach network. The triage and interaction of customer issues can be complex, but they are primarily cleared within 5 hours.

3.36.   Customer faults are the highest volume of faults within the current QoS measure. They also have the lowest average resolution time, and in many cases are recorded with a 1 minute resolution time. As such their inclusion in the QoS measure has the effect of increasing the proportion of faults resolved within the SLA and would have the effect of reducing an MTTR measure if they were included.

3.37.   While Openreach continues to believe that this fault type does not provide any meaningful insight to QoS, we recognise that they could be considered the counterpart to MBORC faults, in that their inclusion would provide a counterbalancing and stabilising effect to MBORC by reducing its variance. However, their inclusion would also further reduce Openreach's ability to influence the overall outturn of the measure (since our performance in addressing electronic and fibre faults would be significantly outweighed by the volume of customer faults and the repair times of MBORC faults), and undermine our incentives to reduce the volume of this fault type.

3.38.   As such, we are supportive of customer faults being excluded from the measure and MBORC faults should also be excluded. If MBORC is included within MTTR, then Ofcom could consider including customer faults as well. This would make the measure less volatile but would reduce Openreach's ability to influence the measure. Therefore, this would undermine some of the key benefits of the change to MTTR and would require Ofcom to reconsider the appropriate level of the Standard.

The Consultation, Question 3: Do you agree with the proposal to exclude customer faults from the new measure? Please provide evidence to support your views.

Openreach response: Openreach is supportive of customer faults being excluded, which is in line with our original proposal. However, MBORC faults should also be excluded.

If MBORC is included within MTTR, then Ofcom could consider including customer faults as well. This would make the measure less volatile but would reduce Openreach's ability to influence the measure. Therefore, this would undermine some of the key benefits of the change to MTTR and would require Ofcom to reconsider the appropriate level of the Standard.

4. The Standard should be set at a sustainable level (Question 4)

4.1. The Consultation sets out a proposed level of the Standard for versions of MTTR including and excluding MBORC, namely Ofcom proposes:

- for MTTR incl MBORC and excl customer faults, a Standard of 3h50mins; [18] or

- for MTTR excl MBORC and customer faults, a Standard of 2h40mins.[19]

4.2. We consider that each of these two levels are insufficiently low for the reasons set out below.

4.3. Ofcom must set any revised Standard at a level which is at least commensurate to the level set at WFTMR21 and not more onerous than this. The WFTMR21 was a package of interconnected remedies that work together (e.g. the charge controls needed to permit sufficient funding for a particular level of QoS). As such setting QoS standards at a substantially higher level would start to undermine the package of remedies as a whole.

4.4. Ofcom should also ensure that the level is appropriate for the remainder of the WFTMR21 market review period (until March 2026). In doing so, it needs to account for underlying trends that affect repair times and consequently QoS performance. It should also ensure that any level it sets does not disincentivise Openreach from continuing to innovate to reduce faults.

4.5. We set out below the evidence on future trends and incentives, that demonstrates a greater allowance is required for either of these two options.

The level of the Standard with MBORC included

4.6. Ofcom must take account of the following factors in setting the level for this version of MTTR.

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[18] The Consultation, para 2.26.
[19] The Consultation, para 2.27.

Variance and unpredictable events

4.7.   The MTTR measure is subject to natural variance, particularly due to the nature of MBORC events, which can have a material impact on the measure. This is demonstrated in recent events, despite Ofcom setting its proposed standard on the basis of 2022/23 performance +10%, that level would be significantly too low for 2023/24, despite underlying performance remaining strong. We are currently outperforming the OTR metric, as we did in 2022/23. However, the level for an MTTR Standard incl MBORC, excl customer, for 2023/24, would need to be set at <u>5h50mins</u> (see Figure 4) in order to allow for the MBORC events that have occurred.

MTTR is on an upward trend

4.8.   Underlying changes in the nature of faults are leading an increase in the MTTR. If MTTR performance is projected forwards, we estimate that it would reach [✂] by the end of the current market review period (March 2026) (see Figure 5 below).

Figure 5   Projection of MTTR incl MBORC, excl customer

[✂]

4.9.   The changes that are driving this increase are not factors related to repair performance itself, but are instead related to the nature of faults we have to repair. This includes both the composition of faults (fault mix) and the average repair times for each fault type.

4.10.   The MTTR measure is a blend of different fault types which vary in the length of time they typical take to fix see Figure 6 below.

Figure 6   Average times to clear different fault types

[✂]

4.11.   MBORC incidents by their nature are particularly complicated and time consuming to fix. They have by far the longest average restoration times (see Figure 6). In addition, Fibre (field) and Electronics (field) faults also necessitate engineering visits and therefore take longer to fix than other fault types.

4.12. Given this variation in average repair times, any changes in the underlying proportion of different fault types will also influence the overall MTTR. We have observed that the proportions of different faults are changing as shown in Figure 7 below.

Figure 7   Breakdown of underlying fault types
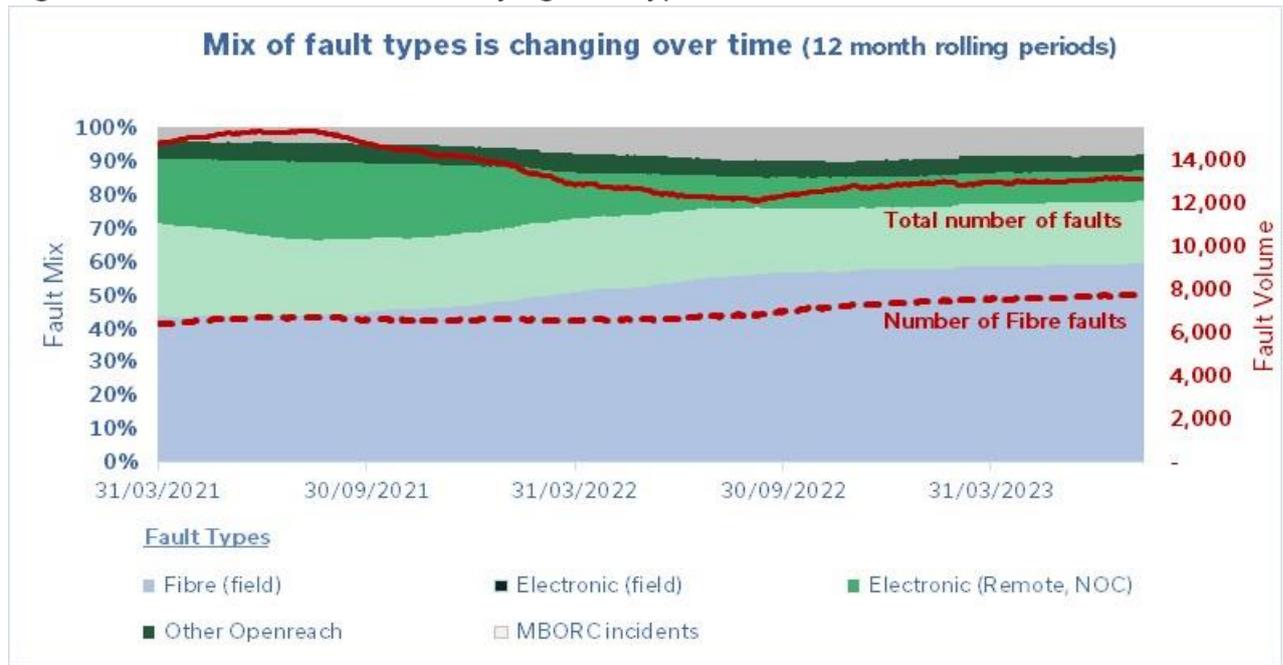
Note: Electronic – NOC faults are faults which are able to be resolved remotely. Incident faults correspond to MBORC events.

4.13. Figure 7 shows the following trends:

4.13.1. **Growth in volume of MBORC faults** – The volume of MBORCs has increased in recent years (as also set out in the Initial Openreach Submission).[20] These faults are typically the longest duration repair tasks, and hence an increase in their proportion, increases the MTTR.

4.13.2. **Reduction in proportion of electronic faults** – The proportion of electronic (particularly Electronic-NOC) faults has fallen (as also set out in the Initial Openreach Submission).[21] We have observed a sustained decrease in the

[20] The Consultation, Annex: Openreach Submission, Annex 1, Table 3.
[21] The Consultation, Annex: Openreach Submission, Table 2.

proportion of these faults as a result of work we have done, such as software fixes, to prevent them (see our proposal, pages 8-9). A reduction in their proportion, has the impact of deteriorating our MTTR performance, despite good outcomes for customers via a reduction in volumes. The logic here is identical to that in relation to customer faults, as set out in the Initial Openreach Submission and recognised by Ofcom in the Consultation.[22]

4.13.3. **Growth of dark fibre volumes** – Dark fibre has been introduced as a regulatory remedy relatively recently and the volumes of circuits are growing from [✄] circuits in 2020/21 to around [✄]in 2022/23. Further growth to over [✄] circuits is expected by the end of the WFTMR in 2025/26 ([✄]). Repairs to dark fibre circuits typically take longer to repair than active circuits. As the active elements of these circuits are not in the control of Openreach it takes longer to observe faults and identify their location in the network, this is reflected in a longer SLA (18 hours) for these circuits.

4.13.4. **'Unknown' faults are reducing** – One small category of faults are those recorded as 'Unknown'. These faults do not have a confirmed category, but often arise due to data entry issues by CPs meaning information about them is incomplete. As such, they are often faults which are in effect 'customer' faults. We are working with CPs to reduce them. The presence of 'Unknown' faults in 2022/23 MTTR reduced our performance against the measure by [✄].

4.14. In addition to changes in the mix of faults, the average repair time of different fault types is also changing, or will change, for the reasons below.

4.14.1. **Network component complexity** – As technology progresses so do the components used in the network. The new EAD 2 hardware set has much larger amounts of preconfigured settings and features, as well as other hardware components all increasing in complexity. This means in hardware failure scenarios there is a growing timeframe to replace and rebuild if they fail. Unlike previous plug and play the network operations centre and field teams need to do complex and length reconfiguration that will increase restoration fault times.

4.14.2. **Congested network** – We are building huge quantity of network and working to ensure we can operate it with a least disruption as possible. This will involve the

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[22] Initial Openreach Submission, page 7-11.

network operations centre enforcing that engineering teams working in the network take additional time and care when accessing that network. This is better for the customer experience and service, but will push out overall fix times.

4.14.3. **Aging components and End of support Life (EosL)** – We are approaching the first cycle of hardware used to deliver the connected Britain revolution which will inevitably herald an increase in electrical failures as it ages. This will increase fault rates but also restoration times as engineers have to travel greater distances for replacement parts.

Incentives to reduce faults

4.15. The inclusion of MBORC in MTTR has the impact of significantly increasing the overall MTTR. As such there is an incentive to have as many faults of other fault types as possible, since this will help offset the distortion from MBORC (this has parallels to the discussion on customer faults in section 3). This disincentive to reduce the number of non-MBORC faults would exist at any level which was set below the average resolution time for MBORC faults, which was [✂] in 2022/23.

Summary

4.16. Taking all the above factors together the Standard for MTTR (incl MBORC, excl customer) would need to be set at between **5h50mins and 6h20mins.** Even with the Standard set at this level there would still be significant exposure to the risk of non-compliance due to MBORC events.

The level of the Standard with MBORC excluded

4.17. Ofcom must take account of the following factors in setting the level for this version of MTTR (excl customer, excl MBORC).

Variance and unpredictable events

4.18. The MTTR measure is subject to natural variance. Even with MBORC excluded the measure experiences such variance. Between 2021/22 and 2022/23 the measure increased by [✂]. This suggests that setting its proposed standard on the basis of 2022/23 performance +10% is insufficient.

MTTR is on an upward trend

4.19. Underlying changes in the nature of faults are leading an increase in the MTTR. If MTTR (excl MBORC, excl customer) performance is projected forwards we estimate that it would reach [✄] by the end of the current market review period (March 2026) (see Figure 8 below).

Figure 8   Projection of MTTR excl MBORC and customer

[✄]

4.20. The changes that are driving this increase are not factors related to repair performance itself, but are instead related to the nature of faults we have to repair. This includes both the composition of faults (fault mix) and the average repair times for each fault type, which are the same factors as described in paragraphs 4.13-4.14.

4.21. The one varying factor is that the growth of MBORC faults has a different impact under this version of the proposal. The growth of MBORC faults means that more resource is being required to address often complex network faults. While these faults themselves would not be included in this form of the measure, their increase in frequency and complexity will increase the overall volume of work into Openreach engineering and skilled teams that will apply pressure to all fault and provision volumes and extend fix times on QoS applicable faults.

Incentives to reduce faults

4.22. Fibre faults had an MTTR of [✄] across the full year of 2022/23. Thus, if looked at in isolation this category of faults would exceed Ofcom's proposed 2h40min standard. A consequence of this is that the electronic (field and NOC) faults are required to be present within the measure to ensure that Openreach does not breach the threshold. As such, a standard of at least 3h10min is required to ensure that there is no disincentive to Openreach innovating and reducing electronic faults.

Summary

4.23. Taking all the above factors together the Standard would need to be set at between **3h30mins and 4h00mins.**

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> **The Consultation, Question 4:** Do you have any views on the appropriate period for the mean time to repair standard? Please provide evidence to support your views.
>
> **Openreach response:** Ofcom should set the level for the MTTR standard at a level that does not disincentivise further innovation and is achievable for the remainder of the WFTMR21 market review period.
>
> If Ofcom determined that it should proceed with an MTTR measure including MBORC (which is not our preference), the level of the Standard that it proposes should be set at least between 5h50 and 6h20 to give a reasonable prospect of achievability.
>
> If Ofcom determined that it should proceed with an MTTR measure excluding MBORC (our strong preference), the level of the Standard that it proposes should be set between at least 3h30 and 4h00, which is realistic and achievable and will maintain incentives on Openreach to resolve faults as rapidly as possible.

5. The current proposals (incl and excl MBORC) fail Ofcom's own legal tests

5.1. Ofcom accepts that the changes in the fault mix have made the current metric harder to meet and that therefore a change to the current QoS Standard is required. A change that would actually make Openreach's compliance with the Standard more challenging (as set out above) is therefore inappropriate and at odds with Ofcom's own stated objectives in this consultation. In addition to setting out its objectives in the Consultation, Ofcom has also previously stated that:

'We do not consider it appropriate to increase the level of the standard as we do not consider the additional costs that Openreach may incur as a result of any increase, to be proportionate.'[23]

5.2. Openreach considers that Ofcom's proposals are neither objectively justifiable nor proportionate. We disagree with Ofcom's assessment of its legal tests,[24] specifically:

5.2.1. Ofcom's proposal is not objectively justifiable, because

- It makes compliance with the QoS Standard harder to meet, as demonstrated by situations where we would fail the proposed measure but we would otherwise meet the current standard. This is because adopting a MTTR standard amplifies the impact of MBORC compared to its impact in the current measure (see above section 3)

- Making compliance harder is not Ofcom's objective as stated in the consultation document (see The Consultation, para 2.37.1). In fact the opposite, Ofcom's objective is to ensure that the repair standard is not made harder due to Openreach's improvement in the customer fault repair.

- There is no evidence that Openreach would seek to use of MBORC "as a means of addressing potential minor non-compliance issues with our minimum standards or to apply less rigor in its criteria for declaring MBORC". Openreach

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[23] WFTMR21, Volume 4, para 4.56.
[24] The Consultation, para 2.37.

has processes and controls in place to ensure MBORC is applied in compliance with its contractual obligations (see section 3.3 above).

- The thresholds chosen (either when MBORC is included or excluded) are too low as Ofcom has not taken into account a number of factors which are essential to assess how to set a QoS standard that ensures Openreach maintains the quality of repair at its current level (see section 4).

5.2.2. For all the above reasons, Ofcom's proposal is not proportionate to Ofcom's objective as set out in the consultation document (see above). It goes further than necessary by setting an unduly stringent condition which Openreach would not even be able to meet if the first year of implementation was the year ending March 2024.

6. The change can be made pragmatically (Questions 5 and 6)

Compliance periods

6.1. The WFTMR21 set compliance periods of 12 months, starting from April 2021. for the OTR QoS Standard that it imposed.[25] These years run from April to March. Since any change that Ofcom may make to these Directions is likely to come into effect part way through a compliance year, Ofcom has considered whether a longer period may be appropriate to account for potential variance in the measure.

6.2. We agree that a compliance period covering only part of 2023/24 raises the risk of undue variance in the underlying measure that may not even out. We therefore support Ofcom's proposal of an initial compliance period of longer than 12 months, beginning from the publication of any decision and ending at the end of the next financial year. However, we note this does not appear to be reflected within the draft Direction.[26]

6.3. We would welcome clarity from Ofcom as to how the initial period of compliance year 2023/24 (before any decision and change in the Direction) will be treated. We note that we are currently exceeding the existing OTR repair QoS Standard for this period and would be happy to provide Ofcom with details of that in a formal submission if helpful. Ofcom could include within its Direction this period as an explicit compliance period. For example, the definitions of Relevant Year within the Direction could be revised to cover three explicit periods. The first would retain the current QoS Standard and be from 1 April 2023 to date of Direction, the second and third would cover the new QoS Standard and be, from date of Direction to 31 March 2025 and 1 April 2025 to 31 March 2026, respectively.

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[25] WFTMR21, Volume 7, Notification of Directions to BT under section 49 of the Communications Act 2003 and SMP Condition 10 (Quality of Service Directions), Schedule 2.
[26] See, The Consultation, A6, Schedule 2, (page 28), definition of 'Relevant Year'.

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> **The Consultation, Question 5**: Do you have any views on applying a longer
> assessment period initially of more than 12 months, beginning from the
> publication of any decision? Please provide evidence to support your views.
>
> **Openreach response**: We support Ofcom's proposal for a longer assessment
> period than 12 months for the initial period.
>
> We would welcome clarity from Ofcom as to how the initial period of compliance
> year 2023/24 (before any change in the Direction) will be treated. We note that we
> are currently outperforming the existing OTR repair QoS Standard for this period
> and would be happy to provide Ofcom with details of that in a formal submission if
> helpful.

KPI reporting

6.4.   In addition to setting QoS Standards, the WFTMR21 required that Openreach report
KPIs, including in relation to repair. In the Consultation, Ofcom has proposed that
Openreach should continue to report on the existing KPIs as well as report on two new
KPIs.

6.5.   We agree with Ofcom that we should continue to report on the existing KPIs for
transparency purposes and for ease of comparison with past performance. However,
we disagree with Ofcom in relation to the new KPIs it proposes. We consider that it is
appropriate to add additional KPIs, but that the new KPIs should be relevant to the
proposed QoS measure and since we disagree with Ofcom's primary QoS proposal, we
also consider the KPIs it proposes to be unnecessary.

6.6.   In its Consultation, Ofcom has proposed new KPIs which cover MTTR for all faults and
customer faults, in addition to the existing KPIs.[27] We have the following observations
on Ofcom's proposals:

6.7.   We do not think it necessary to monitor MTTR for customer faults separately, since the
low resolution times of these faults renders an MTTR comprised of these faults

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[27] The Consultation, para 2.34.

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meaningless. Many customer faults are cleared with a recorded time of 1 minute, such that their MTTR will be very low.

6.8.   If Ofcom was to proceed with a Direction that included reporting on the MTTR for customer faults, we consider this could be addressed by specifying this as a breakdown of a broader MTTR KPI rather than as a separate KPI (see paragraph 6 of Schedule 2 of the legal instruments and our proposals for revisions to that paragraph).

6.9.   Finally, we consider that revising the KPIs such that the new MTTR measures are KPI (b) and the existing OTR measures are (new) KPI (t) is a more efficient revision to the legal instruments, that minimises other cross-reference changes.

6.10.   We consider that instead of Ofcom's proposal in the Consultation, the KPIs should be revised such as to include reporting on MTTR for all faults and for MBORC faults (see the Initial Openreach Submission, Annex 2). This would allow the KPIs to cover versions of MTTR separate to the QoS measure, and to allow reporting on MBORC faults as a transparency measure for our performance in addressing those faults.

> **The Consultation, Question 6**: Do you agree with the proposal to make a direction adding the two new KPIs to those already required in the markets for the supply of LL access in LL Access Area 2, LL Access Area 3 and LLA HNR, and the market for the supply of IEC in BT only and BT+1 exchanges? Please provide evidence to support your views.
>
> **Openreach response**: Openreach is supportive of reporting on KPIs including providing new KPIs but does not support the introduction of the specific KPIs Ofcom is suggesting. Rather Openreach proposes that new KPIs for MTTR for all faults and for MBORC faults separately would be sufficient and consistent with the only workable version of MTTR.