

Table 1: Mobile Co-location General Terms

Document	Clause	Comment
General Terms	1.1, 4.2 and 6.1	<p>The definition of Access Seeker has been amended to include persons that may make a Request (although, of course, that person may end up not making a Request). A corresponding change has been made to the definition of Access Provider, which will now include an access provider to whom an Access Seeker may make a Request (but also may not make a Request).</p> <p>To that extent, persons may be treated as Access Seekers under the Terms, even if they have no intention of ever being one, and persons may be treated as Access Providers under the Terms, even though no-one may wish to co-locate on their facilities.</p> <p>Although clause 6 provides that an Access Provider does not have to make the Mobile Co-location Service available to Access Seekers unless the pre-requisites are met, there are provisions in the Terms that impose obligations on Access Providers to Access Seekers that are not strictly about making the Mobile Co-location Service available to an Access Seeker. For example, please see the obligations under section 7 of the Access Terms. This may be of concern, particularly as the Commission has amended clause 4.2, so that now the Access Provider’s obligations to Access Seekers come into effect immediately, and not just upon a Request.</p> <p>One way of dealing with this is to provide in clause 6.1 that an Access Provider will not have to comply with any of the obligations under the Terms in relation to an Access Seeker (including the obligation to make the Mobile Co-location Service available to the Access Seeker) if the pre-requisites in clause 6 have not been met.</p>

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General Terms	1.1	<p>From time to time, an Access Provider may enter into an agreement with an access seeker for co-location on the Access Provider's facilities, outside of the Terms. In these circumstances, we are concerned that there may be provisions in the Terms which have the effect of giving undue priority to Access Seekers that have chosen to obtain access under the Terms over access seekers who have chosen to obtain access under an agreement with the Access Provider.</p> <p>Such provisions arise in the Terms where the rights of multiple access seekers are to be prioritised.</p> <p>In relation to these sorts of provisions, we believe that the competing rights of all access seekers sharing an Access Provider's Relevant Facilities should be considered, irrespective of the means by which they have chosen to obtain such access.</p> <p>This will inevitably require a number of changes to the Terms, mainly in the Operations Manual and the Access Terms. We have not identified all of the areas where changes would be required, but would be happy to provide further assistance to the Commission in this regard. Unless these sorts of changes are made, it is unclear how the Terms would deal with prioritisation of an access seeker outside of the STD process.</p> <p>For example, we believe that a definition is required, related to persons that are access seekers under the Act that obtain access to a service equivalent to the Mobile Co-location Service under an agreement with an access provider (rather than under the Terms).</p>

Document	Clause	Comment
General Terms	1.1	<p>The definitions of Building, Cable Housing, Mast and Utility Service include the additional words “or that is to be used”. This is incorrect and contrary to the Act, and the Commission has not provided any justification or explanation for the change. The Relevant Facilities under the Act are those structures etc “<u>that are used</u> for the transmission or reception of telecommunications” (emphasis added). If the Access Provider is not actually using the structures etc for that purpose, then they are not relevant facilities under the Act.</p> <p>Apart from being contrary to the Act, we are concerned that Access Providers may be required to allow an Access Seeker to co-locate on a Mast (say) when that Access Provider has not itself made use of the Mast (for whatever reason). We note that a logical extension of these words would mean that any site that an operator was considering designing or was due to be built, would be deemed to be a Relevant Facility, and would therefore need to be available for co-location (including by listing that Relevant Facility in the database) for which an Access Seeker would be able to make an application. This would cover all cell sites which an operator had in its network roll-out plans. This overall lack of clarity raises uncertainties and creates the potential for disputes.</p>
General Terms	1.1	<p>The definition of Mast now includes “a building, or part of a building”. We believe this is incorrect. We also note that this wording was not in the definition of that term that was unanimously agreed by the TCF.</p> <p>Where an Access Provider installs antenna on a building, or building rooftop, the antenna is attached to the building. This can be compared to the situation where the Access Provider uses its own mast and attaches antennae to that mast. In this scenario, the Access Provider owns the mast, but it does not own the building. The Access Provider has control over a small part of the</p>

Document	Clause	Comment
		<p>building - not in the same way as it owns or has effective control over the whole of a mast. For this reason, a building should not be a Mast.</p> <p>Our reading of paragraph 79 of the Commission's draft reasoning supports this viewpoint. The Commission says that it "...considers that the essence of co-location as described in the Act is the location of Access Seeker equipment on Relevant Facilities that are owned by, or otherwise under the effective control of, an Access Provider." In the case of a building which the Access Provider does not own or control, it cannot be considered a Relevant Facility.</p> <p>Also, paragraph (a)(i) of the definition in the Act states that the "tower, pole, mast or other similar structure" has to be "used for the transmission or reception of telecommunications via a cellular mobile telephone network". A mast is used for this purpose – but a building is not.</p> <p>The Commission states in paragraph 80 of its draft report that anything that falls outside the definition of a Relevant Facility is classed as co-siting. Therefore, where an Access Seeker installs equipment next to an Access Provider's equipment on a building, this should be classed as co-siting.</p> <p>This point is further elaborated on in our comments on the Operations Manual.</p>
General Terms	1.1	In the definition of Relevant Facilities, the Commission has added the qualifier that the facilities are "owned, managed, leased or licensed...by the Access Provider".

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		<p>Vodafone did not add this qualification in its definition of Relevant Facilities in the STP because we believe it ought to be included in each of the definitions of Mast, Site and Building. This is because these terms are used extensively throughout the Terms in their own right and needed to be qualified separately. We instead used the term “Relevant Occupation” to capture the qualifier that the Commission has used.</p> <p>If Vodafone’s drafting approach is followed, then there is no reason to include the additional words in the definition of Relevant Facilities, as they are already captured in the separate definitions themselves.</p> <p>Also, the definition of Relevant Occupation should be reinstated as it is used in several of the other documents (such as the Access Terms). Relevant Occupation was also one of the definitions unanimously agreed through the TCF process.</p>
General Terms	6.2 and 6.7 (previous)	<p>We note the Commission has removed the reference to the Charges having to be agreed. We believe it is incorrect to remove reference to this crucial element of the Terms. If it is not dealt with in the way that we have provided in the STP (which is consistent with one of the principles unanimously agreed by the TCF), then it must be dealt with in some other way.</p> <p>If the Access Provider and the Access Seeker have not agreed the Charges, then they cannot be bound by the Terms. It is a feature of specified services under the Act, that charges have to be agreed and not set by the Commission.</p> <p>An Access Provider cannot be required to provide a service where it has not agreed the Charges. This would be commercially</p>

Document	Clause	Comment
		<p>untenable.</p> <p>We do not believe it is correct to bypass the issue of Charges by observing that Charges are unlikely to be an issue. It has to be dealt with and cannot be ignored. In our suggested drafting, we have provided that agreement on the Charges is a pre-requisite under section 6.</p>
General Terms	7.3.1	<p>We believe this provision is dangerous as currently drafted. By using the words “nothing in the ...Terms excludes or limits...”, the contractual effect is to elevate this provision above all others in the Terms. For example, what happens when a condition must be satisfied before a right can be enforced (such as section 6 of the General Terms)? Will clause 7.3.1 effectively override section 6?</p> <p>That is why we believed it was necessary to add the words “unless expressly stated otherwise”. We still believe these words, or words to similar effect, need to be added.</p>
General Terms	9.5	<p>We note the Commission has deleted the requirement that the Access Provider must be included in the 75% that approve a change, which triggers the TCF submitting the change to the Commission for approval.</p> <p>This aspect was a feature of the UCLL Co-location STD, where Telecom had to be within the 75% in the equivalent provision (clause 10.5). There has been no justification or explanation for this change, and we can see no reason why these Terms should be treated any differently to the UCLL Terms.</p>

Document	Clause	Comment
General Terms	10.1	<p>We note that the words “Except as otherwise provided in these Mobile Co-location Terms,” have been added to the beginning of this provision. These words were not used in the UCLL Co-location STD and we see no reason for them to be added here. Is there an example elsewhere in the Terms that should qualify the obligations in this clause? If there is such an example, then it should be referred to specifically, rather than by use of a blanket exception.</p>
General Terms	12.4	<p>We do not believe this new provision is appropriate. Set off provisions have not been a feature of wholesale transactions in New Zealand’s telecommunications industry. The parties require gross payments to be made, notwithstanding that payments may be made in both directions.</p> <p>Further, this provision is not contained in any of the existing STDs and we can see no reason for its inclusion.</p>
General Terms	14.3 (Previous)	<p>We do not understand why this provision was deleted. It seems a sensible provision and fairly uncontroversial. Again, this provision was in the UCLL Co-location Terms and we can see no reason for its deletion. We have reinstated it in our drafting.</p>
General Terms	14.3	<p>We believe the concept of partial suspension, in the change to this provision, may be better expressed in a way that is consistent with the wording in clause 34.6.</p> <p>Where a change such as this is made to the STD, the equivalent change should be made in the UCLL Co-location STD.</p>

Document	Clause	Comment
General Terms	16.6	<p>We accept the wording that we had provided in our STP was not in the UCLL Co-location STD. However, we believe there are differences in risk exposure with mobile co-location that warrant the inclusion of additional indemnities.</p> <p>Particularly, we believe there are greater health and safety risks that arise with mobile co-location than with UCLL co-location, which justifies the inclusion of a health and safety indemnity. For example, the risk to a contractor of installing antennae on a mast is far greater than installing a DSLAM in an exchange. We note that, under health and safety legislation, the Access Provider will have primary responsibility for ensuring the safety of its site. Also, Landlord consents and resource consents are key features of mobile co-location, but will rarely be an issue with UCLL co-location. Again, the additional risks to the Access Provider around these consents warrant an indemnity.</p>
General Terms	17.4.6	This provision should be deleted. Please refer to our comments on the Performance Penalty regime under the Service Level Terms.
General Terms	19.6	The change made to this provision is inconsistent with the UCLL Co-location Terms. We do not consider there is any reason for this inconsistency.
General Terms	20	Generally, we note the Commission has replaced the word “advice” with the word “notice”. The notice requirements in the General Terms are set out in clause 43. These requirements are stricter than would normally apply in an outages situation. For example, there will be occasions where a phone call to the appropriate person is the best way, and the customary way, of conveying information about an outage – however this would not be a “notice” under clause 43. We note that this amendment

Document	Clause	Comment
		was not made in any of the existing STDs and we don't believe there is any justification for the change in this instance.
General Terms	20.3.2/20.5.2	<p>We note the change to clause 20.3.2 and that it preserves the 10 Working Day prior notice of a Planned Outage. However, we are not sure how this works where the Service Levels (such as the one involving Planned Outages) have a tolerance level.</p> <p>This means an Access Provider could be in breach of clause 20.3.2(b) if on one occasion they give 9 Working Day's prior notice, but would not be subject to Performance Penalties under the Service Level Terms. A similar comment may be made about clause 20.5.2.</p> <p>We suggest clauses 20.3.2 and 20.5.2 be qualified by a "reasonable endeavours" obligation, and leave the Service Level Terms as they are, which would preserve the tolerance levels and appropriate incentives in the Service Level Terms.</p>
General Terms	21	<p>We note the Commission has taken quite a different approach to this provision, as compared to the UCLL Co-location Terms.</p> <p>We submit that the Commission should, insofar as the Access Provider is concerned, revert to the UCLL wording that required the Access Seeker to be responsible for fixing faults in its network or equipment, except in the circumstances where the faults are due to an act or omission of the Access Seeker or Customer or End User of the Access Seeker. That clearly allocates responsibility as between the Access Provider and the Access Seeker for those faults. As drafted, the position is not clear, e.g., which party is responsible if the fault was caused by the act or omission of a third party.</p>

Document	Clause	Comment
		There is also a drafting problem in the overlap between clauses 21.1.2 and 21.1.3 with clause 21.2.1 (and also clauses 21.2.2 and 21.2.3 with clause 21.1.1).
General Terms	27	<p>We suggest that this provision be deleted, as we cannot envisage why an Access Provider would be using any Access Seeker Owned Equipment (except perhaps if the Access Provider is exercising its right to remove that equipment, e.g., under clause 13.2 of the Access Terms).</p> <p>If the provision is to remain, then we recommend that the word “use” be clarified, so it does not affect the Access Provider exercising any rights that it may have in relation to that equipment.</p>
General Terms	28.1	A further reference to “Access Provider Owned Equipment” is required.
General Terms	32.1	We cannot see any harm in reinserting the words “and Customers and End Users of the Access Seekers” in line two, which would then make information regarding those persons Access Seeker Information. It may be less likely than under UCLL, but if that information is reasonably required for the purpose of providing the Mobile Co-location Service, then this provision should apply.
General	35.5.5	We do not understand why the additional words have been added. These words were not in the UCLL Co-location Terms and

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Terms		should be deleted.
General Terms	36.2	<p>This provision was not included in the UCLL Co-location Terms and is highly unusual.</p> <p>We believe that, if an Access Provider disputes whether a Performance Penalty applies, then it should not be payable while the dispute is to be determined. It should be treated in the same way as an Invoice Error Dispute under clause 15, where a withholding can occur pending resolution of the dispute.</p>

Table 2: Mobile Co-location Service Description

Document	Clause	Comment
Service Description	1.2	The words “(and its associated functions, including any associated functions of the Access Provider’s operational support systems)” are not in the Act. They are included in the definition of the UCLL Co-location Service under the Act, but not for mobile co-location. We therefore believe that the addition of these words is beyond the scope of the Act. The words were also not contained in the wording in this section unanimously agreed by the TCF. They should be deleted.
Service Description	2.1	This provision also reflects wording from the UCLL Co-location Service under the Act, but not for mobile co-location. We therefore believe that the addition of these words is beyond the scope of the Act. The words were also not contained in the wording in this section unanimously agreed by the TCF. They should be deleted.
Service Description	2.2	The Relevant Facilities are defined in the General Terms. We have no particular objection to them being repeated in this document, but the word “including” is incorrect. The definition in the General Terms, and in the Act, is narrowly defined by reference to the Mast etc. We therefore believe that the addition of this word creates a significant uncertainty and is, in any event, beyond the scope of the Act. The words were also not contained in the wording in this section unanimously agreed by the TCF. They should be deleted.
Service Description	2.3	We recommend that the Utility Services should be defined by reference to the other Relevant Facilities, otherwise they appear to relate to nothing in particular.

Document	Clause	Comment
Service Description	4.1.4	<p>We do not agree with the insertion of the words “and will not be used”.</p> <p>As noted above by reference to clause 1.1 of the General Terms, the Act only applies to towers, etc, “that are used for the transmission and reception of telecommunications via a cellular mobile telephone network”. If something is not used for this purpose, then it cannot be a Relevant Facility, whether or not it “will not be used” for that purpose.</p>
Service Description	4.1.5	<p>The use of the words “and will not be used” in this provision is more awkward. How will the Access Provider know whether equipment that is not used to support a cellular network actually “will not be used”? The new wording risks creating a whole set of problems that is likely to give rise to disputes.</p>
Service Description	4.1.6 (Previous)	<p>We note the Commission’s approach to deleting the co-siting exception. However, we believe it still needs to be made clear in this provision that co-location and co-siting are not the same thing, and that the Terms do not include co-siting. Indeed, we believe co-siting is more of a “grey area” than say the references to UCLL co-location and backhaul.</p> <p>The Commission may not accept our drafting, so we have endeavoured to more clearly draw the distinction between the two.</p>

Table 3: Mobile Co-location Service Level Terms

Document	Clause	Comment
Service Level Terms	1.4	<p>We note that, for the particular deliverables, the Receipt Time will be the “time of notification of receipt by the Access Provider as provided for in clause 13.7.2 of the...Operations Manual”.</p> <p><i>Scope of clause 13.7.2</i></p> <p>We believe this is the correct approach. However, we note that the new extended list of Access Seeker documents to which this definition applies may not all be captured by clause 13.7.2, which only applies to “Applications”. In other words, we believe that Proposed Solutions, Design Notes, Preliminary Notices, Project Plans and amended Project Plans may not apply to clause 13.7.2. We have suggested drafting to clarify this.</p> <p><i>Drafting</i></p> <p>Given the focus of this definition is on the time of acknowledgement of receipt, the proviso at the end of the definition will need to change because that refers to receipt by the Access Provider.</p>
Service Level Terms	3.2	<p>This provision needs to recognise that the Service Levels do not apply to the Soft Launch Applications. We do not believe it is sufficient to rely on clause 8.5, as (without our suggested change) the Access Provider will still be in breach of failing to meet</p>

Document	Clause	Comment
		Service Levels, and potentially liable, even though the Performance Penalties regime may not apply.
Service Level Terms	4.1	<p>The current drafting is materially deficient in not dealing adequately with the circumstances of an Application or other deliverable received by the Access Provider being invalid (e.g., because it doesn't contain sufficient information, such as contemplated by clause 15.2.1 of the Operations Manual).</p> <p>In this circumstance, the Service Levels associated with that deliverable should not apply. This needs to be made clear, and we believe a specific exception needs to be made in clause 4.1.</p>
Service Level Terms	4.1.4	<p>The words "the telecommunications network or equipment of any third party" should be reinserted. The words were in the UCLL Co-location Terms and the Commission has not provided a justification or explanation for their deletion.</p> <p>There will be third parties that are not within the Access Provider's control that may be relevant here, such as the Landlord or a local council or electricity network provider.</p> <p>Further, we note that the proviso at the end of this provision was not in the UCLL Co-location Terms and should be deleted, or alternatively not apply when the act or omission of the Access Provider was in turn caused by the Access Seeker.</p>
Service Level Terms	4.1.6	It is possible that access may be required to an Access Seeker's Building. References to Access Seeker's Building should be included in this provision.

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Service Level Terms	8/8.5	<p>We do not believe that the Access Provider should be subject to two sets of Performance Penalties arising out of the same Service Level failure. We note this is effectively contrary to the double jeopardy principle.</p> <p>In this regard, we note the MED guidelines in relation to the recommended regulatory framework for the financial and securities market discusses the possibility of disciplinary bodies breaching double jeopardy rules. The key issue (as set out by the House of Lords in <i>Inntrepreneur Pub Company (CPC) & Ors v. Crehan</i> [2006] UKHL 38) is the nature of the fine/penalty imposed by the regulatory body. If the penalty is intended to be compensatory, the imposition of a second penalty could effectively change its character to punitive and raise issues of double punishment.</p> <p>Our preference is for the cumulative delay days approach in clause 8.2. This means that Appendix 2 should be deleted.</p>
	8.4 (new)	<p>We believe the Performance Penalties should be capped for any calendar month. Having unlimited penalties places a considerable risk on the Access Provider, which will need to be addressed in Charges that are higher than they need to be. We propose that penalties be capped at 7% of the Charges for the particular deliverables in that month. The 7% cap was the same as the maximum penalty in the UCLL Co-location Terms.</p>
Service Level Terms	Appendix 1: SL 1, 3, 6, 8, 9, 11, 13, 15	<p>In those common situations where an Access Seeker is processing less than 100 Applications, a Tolerance Level of 99% means effectively that, if the Access Provider is late by one day for one of these Service Levels in a month, they will have breached the Service Level. This means it is effectively a tolerance level of 100%. We therefore propose a Tolerance Level of 90%.</p>
Service Level	Appendix 1:	<p>As there may well be Multi-Site Applications involving more than 30 Relevant Facilities, we believe the pattern in SL5 of 5 extra</p>

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Terms	SL 5	<p>Working Days per additional 20 Relevant Facilities needs to be maintained.</p> <p>Therefore:</p> <ul style="list-style-type: none"> • the 15 Working Day period should apply where the MSAs involve 30 to 50 Relevant Facilities; • a 20 Working Day period should apply where the MSAs involve 50 to 70 Relevant Facilities; • a 25 Working Day period should apply where the MSAs involve 70 to 90 Relevant Facilities, etc. <p>We have suggested drafting to deal with this.</p>
Service Level Terms	Appendix 1: SL 7	<p>We have two issues with this provision:</p> <ul style="list-style-type: none"> • First, we believe the number of Site Data Packs to be processed, per Access Seeker, per week should be reduced; and • Secondly, we believe the drafting is unclear what happens when the actual number of Site Data Packs exceeds the limit. <p><i>Number of Site Data Packs to be processed</i></p> <p>The reference to 15 Site Data Packs in this SL7 should be amended to 10 Site Data Packs per Access Seeker. This is because, by having a limit per Access Seeker, there are no overall limits on the number of Site Data Packs to process and each Access</p>

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		<p>Seeker will need to be treated equally.</p> <p>Even at the reduced rate, with say only two Access Seekers, within a month the Access Provider could be processing 80 Applications and be bound to meet the Service level Terms. At the end of two months 160 Applications could be in progress. Following the typical Mobile Co-location Tasks target timeframes, the overall volume of Applications in progress will continue to increase for several months, until the number concluded starts to exceed the number being made. An additional 5 Applications per week effectively results in a 50% increase in the volume of Applications, and we believe this would put the end to end process under too much pressure.</p> <p>In the absence of a total capacity limit, it is important that Access Seeker forecasting is of sufficient detail, and is encouraged to be accurate, so that Access Providers can rely upon the forecast information and ensure that sufficient resources are in place to meet Service Level Terms for all Access Seekers.</p> <p><i>Treatment of excess Site Data Packs</i></p> <p>Where there are more than 10 Site Data Packs in a week, the excess Site Data Packs would (for Service Level purposes) be treated as having been received in the following week, and the Service Levels would apply from then. (Unless, of course, the number of Site Data Packs that are treated as having been received in the following week exceeds 10, in which case the process continues, with any excess been treated as having been received in the next following week, etc.).</p> <p>Any such excess Site Data Packs would be treated as if they were the first to be received in the following week.</p>

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		<p>Access Seeker's will, of course, have visibility of this whole process, as they will know whether they put in more than 10 applications in the week.</p>
Service Level Terms	Appendix 2	<p>If Appendix 2 is to be included (which we submit should not be the case), we note that the 7% penalty has been significantly increased to 20%. The 7% was the same as the penalty in the UCLL Co-location Terms. The Commission must explain the rationale for such a dramatic change. The whole idea of liquidated damages (which the Performance Penalties are an example of) is that they are a reasonable pre-estimation of the loss suffered and, as such, speculation of the relative profit margins of mobile operators and fixed operators can not be relevant. If 20% is to remain, then the Commission must amend the UCLL Co-location Terms from 7% to 20%.</p> <p>Further, it should be clarified that the time periods in this Appendix only relate to deliverables where the end of that time period occurs within the calendar month. For example, an Application received on the 25th day of month one would only be considered for the purposes of Appendix 2 in month two, which is when the 10 Working Day period expires.</p>
Service Level Terms	Appendix 3	<p>As there may be significant Performance Penalties if the Access Provider is even a day late, we suggest that instead of rounding up to the nearest Working Day, a rule is adopted where anything before 1pm gets rounded back and anything after 1pm gets rounded up.</p>

Table 4: Mobile Co-location Operations Manual

Document	Clause	Comment
Operations Manual	2.2	At a relationship level, it is appropriate that the Mobile Co-Location Service Manager is responsible for fault management. However, the reporting of any fault through an individual point of contact has an inherent risk of failure. The Fault Management System must be used for the reporting of all faults, of whatever nature. Faults are then managed by the NOC. Please also refer to section 41.3.2(e) for further clarification.
Operations Manual	7.2.2	Vodafone suggests that this clause should be redrafted to use the words “Unless expressly provided otherwise in the Mobile Co-location Terms”.
Operations Manual	8.1.4(b)	<p>The Capacity Limit and Priority List concepts proposed in Vodafone’s STP have not been adopted. Instead a Service Level Limit for issuing of Site Data Packs is proposed in conjunction with a system of Access Seeker Forecasting similar to that proposed by Telecom in its submission on Vodafone’s STP.</p> <p>Vodafone has provided comments in the Service Levels Terms section of this submission regarding the number of Site Data Packs an Access Provider has to issue while still being bound to the Service Level Term of 5 Working Days. We believe that this should be decreased from the proposed 15 per Access Seeker per week, to 10 per Access Seeker per week. For example, even at the reduced rate that Vodafone is proposing with say only two Access Seekers, within one month the Access Provider could be processing 80 Applications and still be bound to meet the Service Level Terms for each of those Applications. At the end of two months, 160 Applications in total could be in progress. Following the Mobile Co-location Tasks target timeframes, the overall</p>

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		<p>volume of Applications in progress will continue to increase for several months, until the number of Applications completed (in entirety) begins to exceed the number of Applications being made. An additional 5 Applications per week effectively results in a 50% increase in the volume of Applications, and we believe this would put the end-to-end process under too much pressure.</p> <p>In the absence of a total capacity limit, as proposed by Vodafone in its STP, it is important that Access Seeker forecasting is of sufficient detail, and is encouraged to be accurate, so that the Access Provider can rely upon the forecast information and ensure that sufficient resources are in place to meet Service Level Terms for all Access Seekers.</p> <p>Vodafone believes that the definition of Region should be amended to be in line with the amendment to the Common Format Site Database, so that Region is replaced with the term “District” which means the area of a Territorial Authority. This is not onerous for Access Seekers, as this information is already detailed in the database for each site.</p>
Operations Manual	8.3.1	Vodafone has suggested a best endeavours standard of care of accuracy for the Access Seeker’s forecast.
Operations Manual	8.3	Vodafone’s understanding of the process is that, as proposed, forecasting accuracy is ascertained by the sum of the volume of several different types of Applications (Interference Desktop Studies, Site Data Packs, Initial Site Applications and Full Site Applications) being compared to the sum of those applications forecast, across all Access Seekers. It is possible that on an overall volume basis, underforecasting for a particular type of Application could be effectively cancelled out by overforecasting for a different type of Application. The overall statistical result might indicate that the overall volume of all Applications was within the

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		<p>nominated range of forecast accuracy, however the Access Provider may have received a type of Application in a particular quarter that was not in fact forecasted.</p> <p>To counter this potential issue, Vodafone submits that the accuracy of Applications should be calculated on a per Application basis, i.e. the 90-110% accuracy is measured for each particular type of Application across all Access Seekers.</p> <p>An Underforecast of one type of Application should therefore mean that the Access Provider is not required to meet the Service Level Terms that relate to that type of Application.</p> <p>Vodafone has suggested a redraft of the Access Seeker Forecasting section, so that forecasting accuracy is measured by Application type. Further, different resources are allocated to the different types of Applications, and it is appropriate that forecasting accuracy applies to individual types of Applications. Also, it is important that the relief from Service Level requirements is applied to those particular types of Applications that have been underforecast.</p>
Operations Manual	9.1.2	The Access Provider's current and reasonable forecast requirements for capacity are an express statutory limitation on access principles under the Act, and therefore should not be unduly restricted.
Operations Manual	9.1.3	The period of two years as the Forecast Timeframe is too short. We submit that a period of five years is more appropriate. We set out our reasons for this submission in more detail in the front of this submission.

Document	Clause	Comment
Operations Manual	9.1.3	<p>We do not agree that the Access Provider's current and reasonable forecast requirements be limited to a two-year period. The period of two years as the Forecast Timeframe is too short.</p> <p>Vodafone submits that a period of five years is more appropriate. We set out our reasons for this submission in more detail in the front part of this submission.</p>
Operations Manual	9.1.7 and 9.1.8	<p>As proposed, the Access Seeker is not placed in the Queue until the Full Application stage, however the Access Provider is unable to update the Access Provider's Forecast for 40 working days after receiving a Site Data Pack Application. The Access Provider cannot update the Access Provider Forecast including in the event that the Access Seeker has declined to proceed with its Application. In some circumstances, whereby the Access Provider received a Site data Pack Application soon after the monthly update of the Access Provider's Forecast, the Access Provider may not be able to update the Access Provider's Forecast for a period of almost 3 months.</p> <p>In contrast, the Access Seeker has a period of 10 days in which to make an Initial Site Application or a Full Site Application once it has received a Site Data Pack. Vodafone submits that the two periods should be aligned. This would mean that once the Access Provider has received a Site Data Pack Application, it cannot update the Access Provider's Forecast with respect to those particular Relevant Facilities for at least 10 working days after it has provided the Site Data Pack to the Access Seeker. Further, in the event that the Access Seeker makes an Initial site Application, then the Access Provider cannot update the forecast until after that Application has been rejected, has lapsed or the Access Seeker has submitted a Full Site Application. Once an Access Seeker makes a Full Site Application, the queuing principles as set out in section 11 apply with respect to the</p>

Document	Clause	Comment
		<p>Access Provider's Forecasts.</p> <p>It is now also potentially unclear regarding what happens if an Access Seeker does not make either an Initial Site Application or Full Site Application, or declines to proceed. Vodafone suggests that the STP drafting which deems the Application to have lapsed is reinstated.</p>
Operations Manual	9.2 (previous)	<p>We anticipate that if an Access Seeker is left with no choice but to vacate a site which it had occupied on a temporary basis, it may be loath to relinquish that site, once it has gone to all the trouble of consents and build. This could result in the disputes resolution procedure in the General Terms being used by a disgruntled Access Seeker as a way to extend its tenancy. We can also foresee the threat of adverse publicity being used against an Access Provider that wishes to ensure compliance with their right to have an Access Seeker removed from the Site. All of this will be to the detriment of Access Providers and their customers, who will suffer a delay to their access to the new technologies.</p> <p>Further, when taken together with a 2 year forecast period, clause 9.2 is almost unworkable. It will present significant risks for Access Seekers looking to temporarily occupy the Relevant Facility, given the build period and their need to obtain consents etc., before they will have to leave the site. An Access Seeker may be required to vacate the facilities even before it has begun to build. By way of a practical example, it may take an Access Seeker 12 months (say) to obtain the necessary consents for co-location and install its equipment. If the Access Provider is required under the Terms to give the Access Seeker 6 months to vacate the site, and to install its equipment prior to the 2 years, then it would need to give that notice almost immediately after the Access Seeker has completed the build, if not before. This does not seem to be a favourable outcome for either party.</p>

Document	Clause	Comment
Operations Manual	9.2.1 – 9.2.7	<p>Vodafone recognises that Access Seekers may have a need to co-locate during the five year period. To this end, Vodafone proposes that Access Seekers should be entitled to co-locate during this period, thereby giving them access to this resource sooner rather than later. By allowing the Access Seeker to use this resource during the five year period, it should be recognised that the Access Provider is allowing the Access Seeker to use whatever free space existed on the Relevant Facility in advance of when the Access Provider itself may wish to execute its forecast requirement. That is, the Access Seeker will be using those rights under the lease and the sufficient structural capacity, that the Access Provider would have otherwise used in the future, had the Access Seeker not ‘used up’ those rights and capacity.</p> <p>Vodafone therefore proposes that in the event that an Access Seeker wishes to co-locate on a site by using those rights which the Access Provider had forecasted for itself, the Access Seeker can request the Access Provider to advise its anticipated reasonable and actual costs that it would incur if, in the future, it sought to deploy its technology, and was not able to do so due to the Access Seeker’s presence. In practise this would be items such as mast extension, revision or replacement. These costs would only ever become due if and when the Access Provider elected to deploy its technology. The Access Seeker is then able to make an informed decision as to whether it wishes to proceed with the co-location on that basis, or choose some other option (including undertaking the necessary works at that stage rather than waiting until the end of the forecast timeframe).</p> <p>Then, assuming the Access Seeker elects to proceed with co-locating at the site, the Access Provider notifies the Access Seeker when it is ready to execute its forecast requirements, and the Access Seeker confirms to the Access Provider which option it</p>

Document	Clause	Comment
		<p>chooses: either to relocate its equipment, vacate the site, or reimburse the Access Provider for those costs which the Access Provider had already notified.</p> <p>Vodafone believes this alternative is more favourable to both parties than the current proposal in the draft STD. This is because, rather than the Access Seeker having a contractual obligation to vacate a site at the Access Provider's election, the Access Seeker is left with a number of options, including to "stay and pay", and it will have already had visibility of those costs prior to electing to co-locate on that site. And in the meantime, the Access Seeker obtains the benefit of co-location, rather than waiting until the end of the forecast period. Of course the Access Seeker also has the option of investigating other options during that forecast period, such as acquiring a different site or co-locating elsewhere.</p>
Operations Manual	11.2.1	We note and accept that an Access Seeker is placed in the Queue when a Full Site Application has been made.
Operations Manual	11.3.6	<p>We note that the Commission has in this clause indicated that the Access Provider is placing itself in the Queue in relation to its current and reasonable forecast requirements for capacity. We do not agree that the Access Provider is a part of the Queue. The purpose of the Queue as outlined in section 11 is primarily to manage the relative positions of Access Seekers. This is consistent with the TCF-agreed principles on the queuing section.</p> <p>However, the Access Provider's Forecasts are still subject to the queuing principles of "first come first served" and "use it or lose it". Vodafone has moved the previous clause 11.3.6 to 11.5.5 and offered alternative drafting of section 11.5 to clarify these</p>

Document	Clause	Comment
		aspects of queuing in relation to the Access Provider's Forecasts.
Operations Manual	11.4.4(e)	<p>We do not agree that the Access Provider's current and reasonable forecast requirements for capacity should not be taken into account when considering whether to grant an Extension Application. This factor should be a mandatory consideration in the context of any Extension Application.</p> <p>Although this is a non-exhaustive list of factors, the removal of one factor from the list, though not excluding that factor, indicates that it is only an optional consideration rather than a mandatory one.</p> <p>The interests of other users (including other Access Seekers at the Relevant Facilities) (clause 11.4.4(c)) as well as the interests of other Access Seekers in the Queue (clause 11.4.4(d)) are factors that must be considered. The Access Provider should be granted similar rights to these parties under this clause, in particular as this consideration is a limit on the access principles under the Act.</p>
Operations Manual	11.5	Vodafone submits that the Access Provider's Forecast and the additional Access Provider's Forecasts are subject to the queuing principles ("first come, first served" and "use it or lose it"), but that the Access Provider is not actually placed within the Queue itself in relation to its forecast requirements. The purpose of the Queue is primarily to manage the relative positions of Access Seekers. It would for instance be illogical for the Access Provider to "submit Applications" to itself or to consider whether to accept or reject its own Applications.

Document	Clause	Comment
		<p>However, if the Access Provider does not use the capacity at the Relevant Facilities for its Access Provider's Forecasts or does not re-notify its use of the Access Provider's Forecast capacity, it should lose that capacity. Similarly if the Access Provider has not forecast a particular requirement for capacity prior to an Access Seeker making a Full Site Application (and subsequently being placed in the Queue), any additional Access Provider's Forecasts are not "first come" and therefore will not be "first served". Instead, the additional Access Provider's Forecast notified after the Access Seeker has been placed in the Queue will be secondary in (queuing) priority, behind the Access Seeker in the Queue.</p>
Operations Manual	12.1 and 12.3.1	<p>We note that the Commission has deviated from the TCF-agreed principle that the Greenfields Consultation Process is voluntary.</p> <p>We further note that the Greenfields Consultation Process as drafted in Vodafone's STP was based substantially on the 'Co-location Consultation Process' set out in the ACCC Facilities Access Code. The ACCC determined that the Co-location Consultation Process was voluntary: <i>"Carriers may choose to initiate or participate in a Co-location Consultation Process..."</i> (ACCC Code, clause 4.5(1)). The ACCC Code also states that the Co-location Consultation Process <i>"involves a [Carrier] making reasonable attempts to inform all other Carriers..."</i> (ACCC Code, clause 4.5(2)).</p>
Operations Manual	12.2	<p>Greenfields Sites fall outside the definition of "relevant facilities" under the Act, because a Relevant Facility must be one <u>which is used</u> for the transmission or reception of telecommunications, and must therefore already be in existence (emphasis added). Apart from falling outside of the Act, we are concerned that Access Providers may be required to allow an Access Seeker to co-locate on a Mast (say) when that Access Provider has not itself made use of the Mast (for whatever reason). We note that a logical extension of these words would mean that any site that is intended to be built or that an operator is considering to be</p>

Document	Clause	Comment
		<p>designed would be deemed to be a Relevant Facility, and would therefore need to be available for co-location (including by listing that Relevant Facility in the database) for which an Access Seeker would be able to make an Application. This would cover all cell sites which each operator has included in its network roll-out plans. This overall lack of clarity raises uncertainties and increases the potential for disputes.</p> <p>Vodafone submits that the process should remain voluntary, but in the event that the Commission determines that the process is to be mandatory, there are a number of requirements to be considered. Most operators will have varying numbers of new mobile sites in progress. The additional considerations include the following:</p> <ul style="list-style-type: none"> • A definition is required of when a site first becomes a Greenfield Site, and when it ceases to be a Greenfields Site and becomes a site subject to the determined mobile co-location process, as applicable to existing Relevant Facilities. • Under the draft STD, it is unclear whether Greenfields Sites would also be required to be added to the Common Format Site Database. • As part of the Implementation Plan it may be necessary for the Access Providers and the Access Seekers to exchange details of all Greenfields Sites currently in progress in order to initiate the Greenfields Consultation Process. <p>Vodafone does not propose to offer alternative drafting regarding these aspects and has suggested a return substantially to the drafting used in Vodafone's STP, based on the TCF-agreed principles.</p>

Document	Clause	Comment
Operations Manual	12.4.3	We note that the 20 Working Day period (reduced by the Commission to 10 Working Days) was based on the ACCC's determined time period for acceptance or rejection of a Sharing Proposal as set out in the Co-location Consultation Process (ACCC Code, clause 4.5(5)).
Operations Manual	12.5	Vodafone suggests a return primarily to the drafting submitted in the STP. A Sharing Proposal for a Greenfields Site is quite different in nature and scope to an agreement for mobile co-location on an existing site, and the parties have the opportunity to agree quite different and flexible terms to those in the Mobile Co-location Terms.
Operations Manual	12.5 (11.5.5 previously)	We note that the Commission has removed the TCF-agreed principle that the Greenfields Consultation Process was to include an 'opt-out' provision. Vodafone notes that at the TCF, the participants agreed that opt-out provisions could be contemplated in certain circumstances. We believe that the TCF-agreed principle should remain.
Operations Manual	13.9.2 and 13.9.4	The time periods stated in these two sections conflict. The progress reports can only be provided to the Access Seeker after the Access Provider has received the Access Seeker's tracking reports, which are submitted to the Access Provider 5 Working Days before the end of each month (in accordance with clause 13.10).

Document	Clause	Comment
		Vodafone suggests a return to the STP drafting.
Operations Manual	14.2.5	Vodafone believes that the Multi-Site Application concept would benefit from the Access Seeker providing further information as part of the Multi-Site Application. Particularly this includes an overview of how the project could proceed and the general design and type of equipment that is planned for all of the Relevant Facilities that are the subject of the Multi-Site Application. This additional information will assist the Access Provider to formulate a better Multi-Site Plan.
Operations Manual	15.2.1	The concept of a type of “capacity limit” is still represented in the Service Level Terms. The deletion of the reference to the Capacity Limit (as that term was defined in Vodafone’s STP) needs to be replaced with a similar concept that acknowledges that in some cases, the Access Provider will not be required to meet the 5 Working Day time frame for the issue of a Site Data Pack.
Operations Manual	15.2.4(d)	Vodafone notes that an Access Seeker only enters the Queue once a Full Site Application has been made.
Operations Manual	15.2.4(e)	Vodafone has amended clause 15.2.4(b) to clarify that information on the Access Provider’s current and reasonable forecast requirements for capacity must be included in the Site Data Pack so as to indicate the remaining capacity at the Relevant Facilities.
Operations	15.2.7 (and	This new wording deviates from the TCF-agreed principle, which states that Site Data Packs are only current as at the day of

Document	Clause	Comment
Manual	15.2.2)	<p>issue. This new wording also directly conflicts with the second sentence of clause 15.2.2.</p> <p>It would be unfeasible to ensure that the information remains accurate for 10 Working Days following issue of the Site Data Pack.</p> <p>In reality large networks are dynamic with many minor changes occurring regularly, suspending or monitoring those activities and co-ordinating with sites subject to a Site Data Pack would be impracticable to achieve. However, Vodafone acknowledges that the Access Seeker should be informed of changes to a particular site that is the subject of a Site Data Pack which may have a material impact on mobile co-location. Vodafone proposes some alternative drafting to achieve this balance.</p>
Operations Manual	15.3.1	<p>Vodafone submits that the more appropriate timing for the sending of a letter of notice to the Landlord should be when the Access Provider receives either an Initial Application, or a Full Site Application. Prior to that point the Access Seeker has not indicated that it will proceed with any Application at all. This minor change of timing would reduce potential instances of Landlords being contacted unnecessarily in relation to Applications that do not eventuate. This new timing would be more efficient for both the Access Seekers and the Access Providers.</p> <p>Vodafone suggests that the Access Provider is required to send to the Landlord, and provide the Access Seeker with a copy of, the letter of notice within 3 Working Days of receiving either an Initial Site Application or Full Site Application.</p>
Operations Manual	16.3.3	<p>We note that the Commission has included the requirement for the Access Seeker to include either an Agreed Standard Solution or a Disagreed Solution in its Full Site Application.</p>

Document	Clause	Comment
		Vodafone agrees with the inclusion of this requirement at that stage in the Application process.
Operations Manual	16.4.3(b)	Vodafone believes that the reference to an “express right” is unhelpful. It is unclear what express rights this would refer to and furthermore, these words have not been inserted in other Application steps and are therefore inconsistent.
Operations Manual	16.4.4	The proposed drafting which separated ‘standard’ conditions from ‘specific’ conditions is potentially unclear, and so Vodafone has returned to the previous STP drafting to clarify the conditions that may be set out by the Access Provider in the Preliminary Site Approval.
Operations Manual	16.4.4(b)	We do not agree that this condition should be removed from the list of conditions contained in the Preliminary Site Approval as it is likely to be a standard condition on Applications for the Mobile Co-location Service. Further, the inclusion of this condition was part of the TCF-agreed principles.
Operations Manual	16.4.4(d)	We note that the Commission inserted an additional (standard) condition relating to an Agreed Standard Solution or a Disagreed Solution. However, this conflicts with the previous requirement for the Access Seeker to include an Agreed Standard Solution or a Disagreed Solution in its Full Site Application. Vodafone therefore suggests the removal of this condition.
Operations Manual	17.2.1(c)	We do not agree that the requirement for the Access Provider to “use its best endeavours” when assisting the Access Seeker to obtain the Landlord’s approval adheres to the TCF-agreed principle (underlying the Operations Manual) that the Access Provider is the “enabler” and the Access Seeker is the “implementer”. The insertion of this new wording is incorrectly shifting the balance

Document	Clause	Comment
		<p>between these two underlying roles, by imposing a greater responsibility on the Access Provider, and in turn lessening the responsibility imposed on the Access Seeker, in obtaining the Landlord's approval.</p> <p>We also note that the principle of "reasonable assistance" was a TCF-agreed principle. The removal of this principle is also incorrectly shifting the balance between the underlying roles of the Access Provider and the Access Seeker as agreed by the TCF. This has the propensity to confuse accountability for the task.</p> <p>Vodafone submits a return to the wording in Vodafone's STP.</p>
Operations Manual	17.3.2	The reference to the removal of the Access Seeker from the Queue when an Application lapses appears in a numbers of places in the Operations Manual. The wording should be standardised across the various references.
Operations Manual	17.4.3(g)	Vodafone considers the proposed additions to this section helpful, and supports their inclusion
Operations Manual	17.5.1	Vodafone understands this new wording to refer to the fact that the Access Seeker may negotiate a separate lease with a landowner as an alternative to mobile co-location with the Access Provider. As such, this is outside the scope of the Mobile Co-Location Service, and is more properly described as co-siting. For consistency, Vodafone submits that this new clause be removed.

Document	Clause	Comment
Operations Manual	18.2.1(a)	Refer to comment above on clause 17.2.1(c).
Operations Manual	19.2: 17.3.3 previously	We do not agree with the removal of the requirement that the Access Seeker must provide a copy of the RMA consents and/or certificates of compliance required in order to fulfil the conditions in the Preliminary Site Approval. The Access Provider must have evidence upon which to determine whether the Access Seeker has fulfilled the condition.
Operations Manual	19: 17.5 previously	<p>We do not agree with the removal of the requirement to execute a Site Agreement. We agree that one characteristic of the Mobile Co-location Terms is that no additional agreement must be executed between the parties for the provision of the Mobile Co-location Service.</p> <p>However, the Site Agreement is intended to capture any special conditions relating to the provision of the Mobile Co-location Service at the Relevant Facilities that was not already provided for under the Mobile Co-location Terms, such as those which might be set by the Landlord. The Site Agreement is also intended to include the commercial terms (such as the charges for Applications etc). Without both of these elements, the provision of the Mobile Co-location Service cannot be completed; therefore, the Site Agreement is a necessary element of the provisioning process.</p>
Operations Manual	21.3.2	This new clause is necessary in order to ensure that the Operations Manual is consistent with the Interference Management and Design document. This notice period is required so that the Access Provider is able to carry out testing in order to establish benchmarks from which interference caused by mobile co-location can be measured. From these benchmarks, the Access

Document	Clause	Comment
		<p>Provider will be able to determine whether Unacceptable Performance Degradation is occurring. The testing will be undertaken over a period of at least 1 week and will need to be undertaken before the physical build by the Access Seeker. The Access Provider, therefore, needs at least 1 week notice of the intention to begin the physical work in order to be able to perform sufficient testing.</p>
Operations Manual	21.5.1(a)	<p>Vodafone supports this amendment, since it is important that the Access Seekers installed equipment is represented accurately in relation to all other equipment.</p>
Operations Manual	23.1.1	<p>We believe section 23 would benefit from greater clarity on why we are considering Site Alterations. We have suggested some wording to define what is the Site Alteration Purpose.</p>
Operations Manual	23.1.2	<p>We note that, with the use of the word “includes”, the definition of Site Alterations is not exhaustive. We believe this will introduce unnecessary uncertainties into what is already a very difficult area for co-location. The definition must become exhaustive.</p> <p>We also note that the definition of Antenna in the General Terms may include an Access Provider’s microwave antenna or yagi antenna. These antennae should not be subject to the Site Alteration provisions and an explicit exception should be included to deal with this. See our new clause 23.1.3 in this regard.</p>
Operations	23.1.2	<p>Does the Commission intend that Site Alterations extend to include rearrangements, etc., of the equipment of other Access</p>

Document	Clause	Comment
Manual		<p>Seekers on the Relevant Facilities? Or indeed the equipment of other persons, such as the Police, who may have contractual arrangements with Access Providers to occupy some sites?</p> <p>If the Commission does intend that Site Alterations extend to include these arrangements, and this obviously adds a further layer of complexity, this will need to be dealt with in the drafting.</p>
Operations Manual	23.2.1/23.3.1	<p>Vodafone notes that it is not aware of any other jurisdiction in which an access provider is required to make alterations of the type contemplated in Part 5. Further, we also have our doubts as to whether an Access Provider can be forced to make Site Alterations under the Act. This obligation does seem to go beyond what is contemplated by the service description in the Act and it is not at all clear to us that the long term benefit to end users of a Site Alteration requirement outweighs the detriment to Access Providers and their customers from degradation of the Access Provider's services.</p> <p>Without prejudice to these points, if Site Alterations are to remain in the Operations Manual, the circumstances in which Site Alterations will apply need to be made clear, and we suggest that this should be dealt with in clause 23.2.1. The present drafting is loose ("may be necessary"; "may be considered", etc.). We see this as a potentially fertile area for disputes.</p> <p>Conditions required</p> <p>We believe there are two conditions that must apply before an Access Provider can be required to make Site Alterations:</p>

Document	Clause	Comment
		<ul style="list-style-type: none"> • First, it must be necessary for the Access Seeker to have the Site Alterations (in other words, it is the last resort: the Access Seeker will not be able to provide service to its customers in the coverage area of the Relevant Facility without the Site Alterations); and • Secondly, the limitations to the standard access principle are not adversely affected or do not arise (in other words, if one of the limitations does apply with respect to any Site Alteration (such as technical and operational practicability or existing contractual obligations to third parties), then an Access Provider cannot be required to make the Site Alteration). <p>If the Access Seeker has other options available to it to provide service to its customers in the coverage area, then they should not be able to require that the Access Provider make the Site Alterations. Site Alterations are highly intrusive, and are likely in many cases to be customer-affecting for the Access Provider.</p> <p>Also, the limits on the standard access principles apply across the service as a whole, and cannot be circumvented or bypassed by an obligation in the STD. The limits qualify the Access Provider’s obligations to provide the regulated service and therefore qualify obligations such as this one to provide Site Alterations.</p> <p>Order of priority of Site Alterations</p> <p>If these two conditions are fulfilled, then Site Alterations should be imposed on the Access Provider in this order:</p>

Document	Clause	Comment
		<ul style="list-style-type: none"> • First, Mast replacement, extension or revision should be the first alternative to solve the problem (of enabling the Access Seeker to provide service to its customers in the coverage area); • Secondly, and only if Mast replacement etc does not solve the problem, then rearrangement of the Access Provider's existing Antenna on the Mast; and • Thirdly, if neither Mast replacement etc nor rearrangement solves the problem, then (and only then) the use of Antenna Minimisation. <p>This sequence reflects the relative degrees of disruption to the Access Provider (the least disruptive being Mast replacement etc and the most disruptive being Antenna Minimisation). See our new clause 23.3.1 in this regard.</p>
Operations Manual	23.2.2	<p>As noted above, we do not believe Site Alterations can be forced on an Access Provider when the limits on the standard access principles under the Act apply.</p> <p>These limits are listed in clause 13.8.2 of the Operations Manual. However, we note that clause 13.8.2 does not give the limits the significance that they have under the Act, of qualifying the standard access principles. Rather, they set out factors the Access Provider may take into account in rejecting an Application, which is a lesser role.</p> <p>In fact, we believe clause 23.2.2 (clause 23.3.2 in our drafting) should be reversed, if Site Alterations can be forced on an Access</p>

Document	Clause	Comment
		<p>Provider. It should instead say that Site Alterations “will not be considered” where an Application would otherwise be rejected under clause 13.8.2.</p>
Operations Manual	23.3.2	<p>In clause 23.4 (in our drafting), we are proposing that the Access Seeker justifies why it believes that the first part of the Site Alteration Conditions has been satisfied. This part will be known to the Access Seeker, whereas the second part of the Site Alteration Conditions may not be known to the Access Seeker.</p> <p>Access Seekers should also justify which of the types of Site Alteration are required to be undertaken.</p> <p>The Access Provider should have to determine, in its view and given the information that has been provided, whether the Site Alteration meets the two conditions and whether the proposed type of Site Alteration is required.</p> <p>We suggest that, if the Access Provider rejects the Site Alterations, the Access Provider should endeavour to suggest an alternative arrangement for consideration by the Access Seeker.</p> <p>If the Access Seeker disagrees with the Access Provider’s determination, then it may challenge the determination through the dispute resolution process. However, we do not believe that the Access Seeker should be able to proceed with the Site Alterations regardless. We have deleted this provision.</p>
Operations	23.3.3	<p>We have provided that the Access Provider’s design criteria will be taken into account in its decision (as the criteria may not be</p>

Document	Clause	Comment
Manual		the only basis for its decision). The decision will encompass a broader range of considerations (e.g., future forecast requirements, contracts with third parties, etc.).
Operations Manual	23.3 (general)	We believe the process in clause 23.3 needs a complete rethink, in light of these points. We set out our suggested drafting in the marked up document.
Operations Manual	23.4.1	Again, a replacement, extension or revision of a Mast can only be forced on an Access Provider if the Site Alteration conditions have been satisfied and that type of Site Alteration is required to be undertaken.
Operations Manual	26.1.1	Again, clause 26 should only apply where the Site Alteration conditions have been satisfied, and then that Mast replacement etc and rearrangement of Antenna do not resolve the problem.
Operations Manual	27.3.1	<p>We do not agree that the date of Relinquishment of Access Seeker Equipment should be reduced from 6 months to 3 months. This reduction in time deviates from the UCLL Co-location STD, which provided for a 6 month period.</p> <p>We also believe that 3 months is an insufficient time period in which the Access Provider can make arrangements for efficient use of the relinquished space, for example, by processing another Access Seeker's Application for the use of the relinquished space.</p> <p>We note that the Access Provider and the Access Seeker still have the option of setting an earlier Relinquishment Date if this is</p>

Document	Clause	Comment
		mutually agreed.
Operations Manual	28.2.2	<p>We do not agree that the reasonable grounds for the withholding of consent to a Relocation should be expanded to allow for a non-exhaustive list of grounds.</p> <p>This change deviates from the TCF-agreed principles. The intention of the principles relating to Relocation was to ensure that the Access Seeker only refused a reasonable request for a Relocation in limited circumstances: where the Relocation would reasonably result in a detrimental effect to the services provided by the Access Seeker.</p> <p>Vodafone submits a return to the wording in Vodafone's STP.</p>
Operations Manual	28.3.1(a)	<p>We do not agree that the date of Notice for a request for Relocation of Access Seeker Equipment should be increased from 3 months to 6 months. This increase in time deviates from the UCLL Co-location STD, which provided for a 3 month period.</p> <p>In addition, the Relocation process has been changed from a mandatory process (under UCLL Co-location) to one initiated by a "reasonable request" by the Access Provider. The imposition of a greater Notice period in the "reasonable request" circumstances would be unreasonable. There is also no justifiable reason to provide for such an extended Notice period where the Access Seeker has the right to withhold consent in certain circumstances and where the Access Provider will remain responsible for the reasonable costs of Relocation.</p>

Document	Clause	Comment
Operations Manual	31.1.1 and 31.3.2 and 27.3.2 (STP)	<p>Vodafone agrees with the Commission that the Sites entered into the database should not be subjectively selected by the Access Provider. Subjectivity was not the intention of the TCF-agreed principle. The TCF participants recognised the practical reality that certain particular identifiable types of Relevant Facilities cannot support the Mobile Co-Location Service i.e. they are not “physically compatible”, and therefore should not be included in the Common Format Site Database. Examples of these types of sites were listed in Vodafone’s STP.</p> <p>The TCF-agreed principle’s intention was that only masts, under the control of the Access Provider, should be included in the Common Format Site Database, as only those types of Relevant Facilities are the Relevant Facilities that are potentially capable of supporting the Mobile Co-location Service.</p> <p>For example, a roadside council pole with a licence to allow the attachment of antenna may be considered a mast, although control of the pole remains with the council. Furthermore this type of support structure is (objectively) physically incompatible with mobile co-location. As an Access Seeker, Vodafone would not see any value in receiving information on these types of structures in an Access Provider’s Common Format Site Database.</p> <p>Vodafone submits that the drafting of this section be clarified to remove any potential for subjectivity, and that a specific and limited list of the types of Relevant Facilities that are deemed not to be reasonably and/or practicably capable of supporting the Mobile Co-location Service be specified.</p> <p>It is Vodafone’s view that sites such as those on building rooftops are not “Relevant Facilities” for the reasons given in the</p>

Document	Clause	Comment
		<p>General Terms section of this submission.</p> <p>From a practical perspective, if the Commission does not accept Vodafone’s submission, the sites within the database will be approximately doubled in number, with attendant increased cost and timeframe requirements to populate and maintain the information in the Common Format Site Database. Vodafone directs the Commission to the Implementation Plan section of this submission for the time-delay impact to the Common Format Site Database caused by such an increased scope of information. The additional scope will not however lead to a corresponding increase in mobile co-location under the Mobile Co-location Terms, as the additional sites cannot in actuality and practicality support the Mobile Co-location Service.</p>
Operations Manual	31.2.1	Vodafone accepts this amendment.
Operations Manual	31.2.3	<p>Vodafone submits that care must be taken so as to avoid attempting to turn the Common Format Site Database into something it was not designed to be following its development within the TCF. The TCF-agreed principle states that the purpose of the Common Format Site Database is to enable an Access Seeker to identify the Relevant Facilities that are suitable for the Access Seeker to apply to the Access Provider for provision of the Mobile Co-location Service.</p> <p>The first task in the provisioning process is for the Access Seeker to apply for a Site Data Pack which, as specified by the TCF, contains certain detailed information concerning the Relevant Facilities of interest. The Common Format Site Database is not designed to be a substitute for the Application process of itself, and therefore a “best endeavours” standard is too high.</p>

Document	Clause	Comment
		Vodafone agrees with the intention of Telecom’s submission on Vodafone’s STP, although has suggested alternative wording.
Operations Manual	31.3.1(g)	<p>This new wording deviates from the TCF-agreed principles. This is particularly important as the TCF-agreed principles were very specific in relation to the information to be included in the Common Format Site Database.</p> <p>This new wording also conflicts with the representation of the Common Format Site Database in Appendix Q.</p> <p>It is unclear how the “Antenna configuration” is to be represented in the Common Format Site Database, or whether it is even possible to represent a “configuration” in a database that has antenna only populated by numbers. The new wording allows for an element of subjectivity which is in conflict with the underlying principles of the Common Format Site Database as a database created for the storage of objectively-identifiable information.</p> <p>“Antenna configuration” information could perhaps more appropriately form part of the Site Data Pack content.</p>
Operations Manual	31.3.1(l)	<p>The suggested amendment and addition of a new column to the database may elaborate on what constitutes Mast height but moreover it can also create confusion. It is Vodafone’s experience that, almost universally, operators have existing systems (radio planning tools) which record the height of antenna at a site. This should enable all operators to produce height information in relation to antennas quite readily, which will assist with the early delivery of the Common Format Site Database.</p> <p>Further, from a radio planning perspective, the height of the antenna is material, rather than the height of the structure to which it</p>

Document	Clause	Comment
		<p>is attached. The wording proposed in the draft STD may add significant further workload, without adding more value. Vodafone has suggested a slightly revised description of Mast height for use in the Common Format Site Database which should assist.</p>
Operations Manual	31.3.1(m)	<p>This new wording deviates from the TCF-agreed principles. This particularly important as the TCF-agreed principles were very specific in relation to the information to be included in the Common Format Site Database.</p> <p>The TCF participants did not determine that spare Building capacity was required in the Common Format Site Database.</p> <p>The Site Data Pack is the more appropriate medium to provide the Access Seekers with initial information regarding the types and sizes of housings at each site. Further detailed information can also be obtained at the Detailed Site Design Visit.</p> <p>In practical terms, Vodafone does not track either current utilisation or the potential spare capacity of many thousands of cabinets and shelters. To attempt to do so would require a detailed survey of every site. Gathering this information would take a considerable amount of time and would have significant cost implications, thereby delaying the population and implementation of the Common Format Site Database. In Vodafone's capacity as an Access Seeker, we do not consider that the inclusion of information on spare Building capacity in the Common Format Site Database is particularly helpful for mobile co-location.</p> <p>If the Commission does not agree with Vodafone and determines that spare Building capacity must be included in the Common Format Site Database, additional considerations must be added to the Operations Manual. These include: specifying how spare Building capacity is calculated; and changing the Common Format Site Database so that there is some practical method and</p>

Document	Clause	Comment
		<p>meaningful quantum for forecasting the Access Provider's current and future forecast requirements for Building capacity. Vodafone believes that these considerations are quite complex, and at this point cannot offer additional alternative drafting.</p>
Operations Manual	32, 32.5.2(b)	<p>We note that the Standard Site Type Solution development process is intended to be applied only to Agreed Solutions (as a pre-requisite), in accordance with the Interference Management and Design document.</p> <p>We suggest that this requirement be clarified to ensure that the Agreed Standard Solution is developed prior to the Access Seeker's submission of a proposal for the development of a Standard Site Type Solution (to be applied to the Agreed Standard Solution).</p>
Operations Manual	32.9	<p>It is unclear as to how the Standard Site Type Solutions are intended to apply in the case of Multi-Site Applications.</p> <p>We note that the wording in clause 32.9.2 implies that the Standard Site Type Solutions are only applicable to individual Applications. However, the wording in clause 32.9.4 ("relevant Applications") may be read to include Multi-Site Applications.</p> <p>Vodafone believes that Standard Site Type Solutions should also apply to Multi-Site Applications.</p>
Operations Manual	33.2.1	<p>We do not agree that the Access Seeker should have the sole discretion to determine which utility services at the Relevant Facilities form the Utility Services for the Mobile Co-location Service.</p>

Document	Clause	Comment
		<p>The Access Provider will be required to consider the interests of numerous third parties (including other Access Seekers) when determining which utility services are able to form the Utility Services at the Relevant Facilities. Further, the “first come, first serve” principle is intended to apply to the inclusion of utility services with the Utility Services (as stated in the TCF-agreed principles, the queuing principles applies to Utility Services).</p> <p>We note also that the wording in clause 33.2.1 conflicts with clause 33.2.3 which refers to the Access Provider’s responsibility for the notification (and identification) of the Utility Services.</p>
Operations Manual	33.3 (29.3.2 STP)	<p>We note that the Commission has deleted the provisions relating to the costs for the use and maintenance of the Utility Services.</p> <p>Other references to Charges in the STP provided for such Charges to be set by the Access Provider. In contrast, the costs provisions in relation to Utility Services can be distinguished as they are based on “pro rata proportions” and “reasonable and actual costs”. For example, we note the Commission has taken this approach and retained references to costs and pro rata proportions in clauses 34.2.1 and 34.2.2. Vodafone submits that the costs provisions in Vodafone’s STP should remain.</p>
Operations Manual	34.1.3	<p>The Access Provider’s “current and reasonable forecasts” are a statutory limitation to access principles under the Act, therefore are an appropriate factor to be considered in to the context of any upgrade of Utility Services.</p> <p>In contrast, the Access Seeker and other users of the Relevant Facilities do not receive the same protection under the Act. It is reasonable to consider the interests of other users; however, we do not agree that these interests should be expressed as the</p>

Document	Clause	Comment
		"current and future requirements of other Access Seekers and users".
Operations Manual	41.3.2(e) (and 43.2.6)	Vodafone has suggested a new clause to clarify that the Fault Management System should also be used to report faults to the Access Provider in Access Seeker Equipment that may have an effect on the Access Provider Equipment.
Operations Manual	43.2.6	<p>Faults are reported through the Fault Management System and will be handled by the NOC. In order to clarify this, we suggest that the reporting of faults in the Access Seeker's Equipment that may have an impact on the Access Provider Owned Equipment, the Access Provider Equipment or the equipment of other users of the Relevant Facilities be expressly stated as a function of the Fault Management System (the functions are stated in clause 41.3.2).</p> <p>The reporting of any fault through an individual point of contact (such as the Mobile Co-location Service Manager) has an inherent risk of failure. The Fault Management System must be used for the reporting of all faults, of whatever nature.</p>
Operations Manual	45 (40.6 in STP)	<p>We note that the Commission has deleted the provisions relating to Planned Outages and Unplanned Outages, instead referring to section 20 of the General Terms.</p> <p>We also note that the Commission has deleted (altogether) the provisions relating to emergency work affecting the Access Seeker Equipment. This has been effectively replaced by a revised definition of Unplanned Outages. The inclusion of emergency work affecting Access Seeker Equipment was a TCF-agreed principle.</p>

Document	Clause	Comment
Operations Manual	47.4.3	<p>We note that the Commission has introduced the concept of a single Planned Work Project Plan for multiple (current and future) Planned Work Applications which relate to “the same types of work”.</p> <p>We believe that this would be an efficient way of undertaking Planned Work. However, we believe that a single Planned Work Project Plan should be used in the case of “standard” Planned Work, similar to the application of Standard Site Type Solutions in accordance with the Standard Site Type development process or similar to the Multi-Site Application Process.</p> <p>An example of the type of Planned Work across several sites that may benefit from a single Planned Work Plan would be the proposed installation of a common component, such as a new remote electrical tilt antenna unit. In this type of instance Vodafone submits that the Access Seeker should propose this “standard” approach to the Access Provider at the time the Access Seeker submits the Planned Work Application. However, the use of a Planned Work Project Plan for multiple Planned Work Applications can only be implemented by mutual agreement. In the event that it cannot be agreed during the Planned Work Application process, the Planned Work must proceed on a per Application basis.</p>
Operations Manual	47.6.3	<p>We note that the Commission deleted the requirement for compliance with the Interference Management and Design document. However, we submit that it is necessary for this express reference to remain, as the requirement in clause 47.6.4 refers back to the “requirements for interference management in accordance with clause 47.6.3”.</p>
Operations	51.1.2	<p>There are some circumstances where the conditions of the use of the Access Control Device (which is likely to be either keys or an access card), especially in relation to out of hours use, may be altered by a Landlord, for example in the case of updated</p>

Document	Clause	Comment
Manual		security procedures. It is reasonable for the Access Seeker to be required to comply with revised security requirements for the use of the Access Control Device. Further, the Access Provider must exercise the amendment of the conditions of the Access Control Device in a reasonable manner.
Operations Manual	52.2.2	It is important that the Permit To Work procedures are adhered to. Vodafone suggests that the word “unreasonably” be added to the Commission’s drafting.
Operations Manual	Appendix A	The term ‘Region’ had been amended by the Commission to the term ‘Territorial Authority’, which is in actual fact an entity. Vodafone believes that what was intended by the Commission’s drafting (based on Telecom’s submission to Vodafone’s STP) was the area comprised within a certain Territorial Authority. Therefore, Vodafone suggests that the term District is used instead (as it is defined in the Local Government Act 2002).
Operations Manual	Appendix C	The term ‘Region’ has now been amended to ‘District’, therefore the reference to Region needs to be replaced with the new reference term. Suggested drafting: Replace the word “Region” with the word “District”. Please note that Vodafone has not submitted a marked up version of this Appendix.
Operations Manual	Appendix D	In accordance with clause 15.3.1, it is suggested that the Access Provider sends the introductory letter of Notice to the Landlord once an Initial Site Application or a Full Site Application is submitted.

Document	Clause	Comment
		<p>Suggested drafting: In Stage 1, remove the reference to the letter of notice to the Landlord in relation to the Site Data Pack, and re-insert it one line down so that this task instead reads “AS submits Initial Site Application, Full Site Application and AP sends letter of notice to Landlord, or AS declines to proceed”.</p>
Operations Manual	Appendix Q	<p>The term ‘Territorial Authority’ has now been amended to ‘District’.</p> <p>Suggested drafting: Replace the words “Territorial Authority” with the word “District”. Remove the columns for “Total Height” and “Spare Building Capacity” from the Common Format Site Database example.</p>

Table 5: Mobile Co-location Access Terms

Document	Clause	Comment
Access Terms	1.1	<p>We note the deletion of the reference to other persons whose consent may be required to carry on the Permitted Use. As noted, this may include a head lessor or head licensee in the case of a sub-lease or sub-licence, or a mortgagee.</p> <p>The grantor is the next party up the “tenancy chain”, but sometimes an Access Provider will need the consent of a party who is even higher up the tenancy chain, such as the head lessor.</p> <p>Sometimes, the Access Provider needs the consent not only of the party granting the lease at the site, but also a different party who has granted access to the site. Arguably, these are the grantors of the right of Relevant Occupation over the site - but they are licensors for an area separate to that, such as the access track.</p> <p>We cannot ignore these persons, if their consent is required.</p> <p>Clause 17 of the Operations Manual focuses primarily on obtaining the Landlord’s consent. There is an early reference to other third parties, but the clause mainly deals with Landlords. We believe the best thing to do is to broaden the definition of Landlord to include these other third parties.</p> <p>If this is not acceptable, then changes are required to clause 17 of the Operations Manual, so its application is broader than just Landlords.</p>

Document	Clause	Comment
Access Terms	5.1	We believe further clarity is required around the new wording at the end of this provision. We have suggested some changes.
Access Terms	6.3	We do not understand why the words “subject to the Mobile Co-location General Terms” have been added. We would like the Commission to clarify which clause(s) in those terms qualifies the Access Seeker’s obligations under this provision. We note these words were not included in the UCLL Co-location STD.
Access Terms	7.1.2	We believe the deleted words should be reinserted. The Access Provider cannot be responsible for assisting the Access Seeker to obtain consents etc that they require generally to operate their network. We also note that this wording was in the UCLL Co-location Terms.
Access Terms	7.3.4 (7.4 new)	We believe this provision is inappropriate in this context. The provision, a mirror of clause 6.1.7, is more applicable to a person in the position of a “tenant”, rather than someone in the position of a “landlord”. There are various explicit and detailed requirements in the Terms on the Access Provider to assist in removals, replacements, etc. It is dangerous to have a general obligation to provide the various things listed in this clause, where there are more specific clauses dealing with these things elsewhere in the Terms. The reciprocal obligation on the Access Seeker to cooperate is needed since the Access Provider will be managing the Relevant Facilities, including other Access Seekers and access seekers on the site. It’s similar to the analogy of a landlord who has

Document	Clause	Comment
		<p>multiple tenants who needs all of them to cooperate to ensure the workability of the property. It does not follow that the landlord should have a similar general obligation to cooperate with respect to the tenant's own equipment - the Access Seeker's rights of access and use are explicitly set out elsewhere in the Terms.</p> <p>Without prejudice to the above, if the Commission decides to include the provision, then it should be amended so that the Access Seeker should not be able to use this provision to expand the rights it is given elsewhere in the Terms, i.e., the obligation on the Access Provider to cooperate should be subject to the remainder of the Terms.</p>
Access Terms	7.4	We have deleted this provision. As noted above, it is the Access Provider that has primary responsibility for compliance with the health and safety legislation. An obligation is not required on an Access Provider, but it is required on an Access Seeker, who must be obliged to comply in the same way as an Access Provider is obliged to comply by law.
Access Terms	8.3	We have carved out a requirement to disclose a document where it cannot be disclosed for confidential reasons.
Access Terms	8.4	We believe that the Access Provider should not have to disclose all terms to the Access Seeker, only the terms that are relevant in terms of covenants and conditions. For example, it may not be necessary to disclose the rental.
Access Terms	9.1.1	This provision should not apply where the Access Provider wishes to re-use the Relevant Facilities elsewhere. We have inserted wording to deal with this.

Document	Clause	Comment
Access Terms	9.1.3/9.1.4	The obligations in this provision should only apply where the Relevant Occupation permits, as this may not be allowed. Also, it should be made clear that the lease/licence arrangements have to relate to the Relevant Occupation. We have also inserted wording to ensure that the rights of any third parties on the Site are taken into account.
Access Terms	11.1	The changes to this provision are consistent with how the suspension wording works in the General Terms.

Table 6: Mobile Co-location Interference Management and Design

Document	Clause	Comment
Interference Management and Design	2.3 : Definition of "Outage"	<p>The definition of "Outage" proposed by the Commission is too narrow to capture the performance degradation which affects services to End Users and which must be protected against in 6.2.1(d). As drafted, Outages may not be experienced but other degradation can occur which has the same or similar impact, for example, calls may fail to connect or the call quality may be adversely affected, however, End Users will not be protected from this.</p> <p>Only loss of service due to dropped calls is considered as outage. Outage is one of the many effects of interference. It is a narrow definition which only captures one of the effects of interference. To protect existing services to End Users, it is important that all the effects of interference are captured. Unless all aspects of interference are captured, there will be adverse impacts on End User Services, including Emergency Services, which will not be protected against.</p> <p>The term outage is taken from the Kordia submission. Kordia was concerned that the "more than minor" threshold was too low and potentially uncertain. What Kordia proposed was that 6.2.1(c) should refer to a number of statistical parameters to quantify acceptable interference. It included, as an example of one such statistical parameter, the proportion of dropped calls, described as "outage" (page 28). Kordia did not intend this to be the only measure of interference.</p> <p>To address the concerns raised in the Kordia submission, but without limiting the definition of performance degradation too narrowly, Vodafone proposes that a new term, Telecommunication Service Quality, is defined to replace outage. This term will capture not only dropped call rates but also the wider impacts of interference.</p>

Document	Clause	Comment
		<p>Even if it was an appropriate term, there are also issues with the definition used. Outage has several specific meanings in engineering terms. The definition in the Draft Terms does not reflect these meanings and so creates a new meaning, which is confusing.</p>
<p>Interference Management and Design</p>	<p>2.3 : Definition of “Unavoidable Unacceptable Performance Degradation”</p>	<p>Use of this concept creates serious issues.</p> <p>The term seems to suggest that some Unacceptable Performance Degradation is acceptable. This is of course both internally inconsistent and inconsistent with the concept of a non-compliant solution which underpins Schedule 5.</p> <p>Secondly it is based on the misconception that one or more of the Unacceptable Performance Degradation measures cannot be avoided. The point of defining the term Unacceptable Performance Degradation is to ensure the performance degradation introduced by Co-location does not exceed a predefined limit. The definition of Unavoidable Unacceptable Performance Degradation essentially introduces ambiguity into Unacceptable Performance Degradation which is the primary threshold for ensuring Co-location does not introduce degradation in excess of a predefined limit. The whole purpose of the Parties working together is to design the systems so that Unacceptable Performance Degradation does not occur.</p> <p>Application of this term in the interference testing procedure could lead to a scenario where interference is experienced and the parties cannot agree on a solution. This will lead to unnecessary disputes and delays which are not in the interest of any Party.</p> <p>The term “Unavoidable Unacceptable Performance Degradation” should be removed as it results in:</p>

Document	Clause	Comment
		<ol style="list-style-type: none"> 1. Diluting the protection to the Parties provided by the Unacceptable Performance Degradation threshold. 2. Creating uncertainty if interference occurs during post installation testing period.
Interference Management and Design	2.3 Definition of "Existing Co-locator"	The definition of "Existing Co-locator" is too narrow as it is limited to Access Seekers. Existing Co-locators may have co-located by separate agreement and so have not sought access under these terms and so do not fit within the definition of "Access Seeker". These entities need to be taken into account as they will be affected and need to be involved in any testing.
Interference Management and Design	6.1.1	Defines Performance Degradation as a cumulative reduction in level of quality of service provided by the Access Provider and by any Existing Co-locator. This definition does not provide for Performance Degradation to the quality of services provided solely by either the Access Provider or the Existing Co-locator. The definition ought to capture degradation which affects the services provided by only one of the Parties. This can be achieved by inserting "or" into the clause.
Interference Management and Design	6.2.1(a)	The addition of the Existing Co-locator confuses the issue because it makes it unclear when the isolation of at least 30dB is required when there is an Existing Co-locator. As Vodafone understands it, it was the Commission's intention, in including the Existing Co-locator, to ensure that there was at least 30dB isolation between the Access Seeker's transmitting equipment and the Existing Co-locator's receiving equipment as well as at least 30dB isolation between the Access Seeker's transmitting equipment and the Access Provider's receiving equipment. The current wording fails to achieve this. This would be achieved by expressing the isolation to be between the Access Seeker's transmitting equipment and the sites existing base station(s).

Document	Clause	Comment
Interference Management and Design	6.2.1 (b)	<p>The Commerce Commission accepted Kordia's proposal based on an ITU report, for a 1dB degradation in the link budget, however, Kordia's proposal took into account only one part of the interference considered in the report relied on.</p> <p>The ITU-R Report M.2030 considers the total interference experienced by a mobile network and, as part of that, considers in isolation the maximum allowable interference (MAI) when co-locating which it recommended as being 6dB below the noise floor (refer to section 4.2.1.4).</p> <p>$MAI_Desen. (dBm) = Noise\ floor (dBm) + Receiver\ noise\ figure - 6\ dB$</p> <p>This results in a 1dB rise in the noise floor. This is correct, as far as it goes, but it is only part of the ITU's consideration of the issue and this should not be translated as a 1dB degradation in the link budget.</p> <p>ITU-R Report M.2030 investigates the coexistence between IMT-2000 time division duplex (TDD) and frequency division duplex (FDD) radio interfaces. A number of scenarios were considered including base station to base station (BS-BS) interference for both proximity and co-location scenarios. The analysis is based on the total interference as defined in section 2.8.1 :</p> <p>$I = N_{BS} + I_{ext} + I_{int}$</p> <p>Where N_{BS} is the receiver noise floor made up of</p> <p>$N_{BS} (dBm) = Noise\ floor (dBm) + Receiver\ noise\ figure,$</p>

Document	Clause	Comment
		<p>I_{ext} is the Interference from the aggressor system or interference from the co-located system. I_{int} is the internal interference made up of intercell and intracell Interference (refer section 2.8.1 of ITU-R Report M.2030 for further details).</p> <p>The thermal noise floor for WCDMA 3G systems referred to in the ITU-R Report M.2030 is -108dBm. The receiver noise figure is 5dBm. This makes the receiver noise floor N_{BS} -103dBm. As the ITU-R Report states (and Kordia proposed), the maximum allowable interference or external interference in a co-located scenario (I_{ext}) should be 6dB below the noise floor i.e. I_{ext} is given by</p> $I_{ext} \text{ (dBm)} = \text{Noise floor (dBm)} + \text{Receiver noise figure} - 6 \text{ dB}$ <p>To work out the degradation in the link budget it is necessary to work out the total interference to the system, not only that introduced by Co-location. The table below gives the rise in the total interference when I_{ext} is 6dB below N_{BS} as proposed by ITU-R report M.2030.</p> <p>Different operators and cell sites may use different values for I_{int} depending on their design practises and coverage requirements of the site. Thus it is necessary to consider a range of values for I_{int}. Cellular mobile systems are interference limited, thus I_{int} will be at least as strong as N_{BS} i.e. the minimum value for I_{int} will be equal to N_{BS} (-103dBm).</p> <p>In calculating the total interference I in a non Co-location scenario I_{ext} does not exist, thus only I_{int} and N_{BS} are taken into account.</p>

Document	Clause	Comment				
		N_{BS} (dBm)	-103.16	-103.16	-103.16	-103.16
		I_{ext} (dBm)	-109.16	-109.16	-109.16	-109.16
		I_{int} (dBm)	-103.16	-102.16	-101.16	-100.16
		$N_{BS} + I_{int}$ (dBm) (No co-location)	-100.15	-99.62	-99.03	-98.39
		$N_{BS} + I_{ext} + I_{int}$ (dBm) (Co-location)	-99.63	-99.16	-98.63	-98.04
		Difference (dB)	0.51	0.46	0.40	0.35
		<p>The above table shows that the maximum rise in total interference is 0.51dB when the interference from Co-location raises the thermal noise floor by 1dB. In other words, the maximum degradation to the link budget is 0.51dB. In thermal noise limited systems such as fixed systems it is possible to get a 1dB degradation in the link budget due to the 1dB rise in noise floor. That is not the case in an interference limited cellular mobile system.</p> <p>It should also be noted that the maximum degradation in link budget is limited to 0.51dB regardless of the value of NBS. The following table illustrates this point by assuming an arbitrary value of X.</p>				

Document	Clause	Comment		
		N_{BS}	XdBm	x Watts
		I_{ext}	X-6dBm	0.25x Watts
		I_{int}	XdBm	x Watts
		$N_{BS} + I_{int}$ (No co-location)	(X+3)dBm	2x Watts
		$N_{BS} + I_{ext} + I_{int}$ (Co-location)	(X+3.51)dBm	2.25x Watts
		Difference/ratio	0.51dB	1.13
		<p>From this it is clear that the maximum degradation in link budget based on Kordia's proposal is 0.51dB. This in line with Vodafone's proposal for 0.5dB in the STP.</p> <p>Kordia also made the claim that 1dB degradation in link budget is an industry standard figure. While this is correct for fixed wireless systems, in fixed wireless systems 1dB rise in NBS results in 1dB degradation of the link budget as the fixed systems are noise limited rather than interference limited. However, no such figure exists in cellular mobile systems. Vodafone is not aware of any situations where network performance degradation due to mobile co-location is accepted by mobile network operators overseas. There is no Vodafone Group operating company that currently accepts, or is required to accept, network</p>		

Document	Clause	Comment
		<p>performance degradation due to mobile co-location. There are no set degradation thresholds and Access Seekers generally design for “no degradation” i.e., Co-location generally results in insignificant degradation. Any additional solutions are looked at on an ad hoc basis.</p> <p>It should be noted that either ITU-R Reports such as M.2039 or M.2109 have only recommended a 1dB rise in receiver noise floor. None of these reports have recommended a 1dB degradation of the link budget.</p> <p>It should also be noted that in fixed systems it is possible to make changes to the customer premise equipment as well as the base transmitter. In cellular mobile systems it is only possible to make changes to the base transmitter thus cellular mobile systems cannot tolerate the same level of performance degradation a fixed system is able to tolerate. Parameter values used in fixed systems should not be transported directly into cellular mobile systems without making appropriate changes.</p> <p>Limiting performance degradation is especially important to ensure the availability of Emergency Services. In cellular mobile systems there are no antenna solely dedicated to the provision of Emergency Services. This means that any performance degradation to the network will impact on Emergency Services as well as all other services. This is dealt with in more detail under 6.2.1(c) below.</p> <p>There is also a drafting issue with this clause as it does not allow for the situation where either solely the Access Provider or the Existing Co-locator experience loss. This can be corrected by inserting “/or” after and provides for all potential performance degradation situations, including loss experienced solely by the Access Provider or by the Existing Co-locator’s Link Budget or by both.</p>

Document	Clause	Comment
Interference Management and Design		<p>Coverage loss caused by degradation in link budget only covers loss of coverage due to loss in range. It does not cover any loss of coverage in a particular area due to Site Alteration and so services to End Users, including Emergency Services, would not be protected from this loss.</p> <p>To provide this protection against this, it is necessary to ensure that any Site Alterations proposed by the Access Seeker under the Operations Manual do not result in loss of coverage which is not otherwise captured by “Unacceptable Performance Degradation”. The clause proposed does not mean that no coverage loss is permitted, as such loss will occur due to degradation in the link budget. The clause is designed to protect against any other loss in coverage, which would otherwise be unrestricted.</p>
Interference Management and Design	6.2.1 (c)	<p>Vodafone shares the Commission’s concerns about co-location causing Performance Degradation to Emergency Services. The Commission has proposed a 0.2dB degradation as acceptable to antennas solely dedicated to Emergency Services. Cellular mobile networks do not have separate dedicated antennas for the provision of Emergency Services. This means that it is not possible to have different degradation thresholds for Emergency Services on the one hand and general mobile services on the other. All services provided by a site will experience the same interference from co-location.</p> <p>In an ideal world, Emergency Services would experience no performance degradation. However, not allowing any degradation at all, or allowing only a very small amount could be an impediment to co-location. The 0.5dB degradation limit is a compromise between enabling co-location and protecting existing services, including Emergency Services.</p> <p>Vodafone understands that over 50% of the calls to Emergency Services are carried over the cellular mobile networks. In rural</p>

Document	Clause	Comment
		<p>areas, calls to the Emergency Services are more likely to be carried on mobile networks due to the fact that people in such areas often perform work that is of a mobile nature and so they are not within reach of a fixed-line when an emergency occurs. The impact of Performance Degradation is particularly noticeable in rural areas and indoors. In urban areas loss of coverage is likely to be compensated by nearby sites due to coverage overlap. In rural areas and indoors usually there is limited coverage overlap. Any loss of coverage is not always compensated.</p> <p>Vodafone carries, on average, 1800 calls every month made in rural areas to Emergency Services based on network Vodafone average between March and July 2008. A Performance Degradation of 1dB could impact up to about 40 calls to Emergency Services each month in such areas. Vodafone's view is that this is unacceptable to Emergency Services. Vodafone proposes that the 0.5dB performance degradation limit applies to all services, including Emergency Services.</p>
Interference Management and Design	6.2.1 (d)	<p>This issue is discussed in relation to the definition of outage above. The impact of interference is not limited to loss of service but also affects degradation of service such as failures to connect and call quality etc. For this reason, the limit of a 5% increase should apply to all aspects of degradation rather than just to outage or loss of service. Unless all aspects of degradation are captured, there will be adverse impacts on End User Services, including Emergency Services, which will not be protected against.</p> <p>Secondly, the establishment of the network quality benchmark should be performed before Co-location occurs. Changes are made to cell sites on a regular basis and establishing the quality benchmarks prior to Phase 1 of the Project Closure Check list will not give an accurate indication of the impact of Co-location taking place later down the track.</p>

Document	Clause	Comment
		<p>It is also necessary to consider situations where there is more than one co-locator. If each co-locator is allowed to degrade the performance by 5% then the total degradation from multiple co-locators is likely to result in a level of degradation that will have a significant impact on the Access Provider's network and, correspondingly on services to End Users (including Emergency Services). It is important that there is a cap on the total amount of degradation that an Access Provider must tolerate as a result of Co-location.</p>
Interference Management and Design	7.2.1	<p>The Access Provider equipment and that of the Existing Co-locator can usefully be described together as "the existing equipment at the Relevant Facilities". This ensures that the isolation applies between the Access Seeker Equipment and both the Access Provider and any Existing Co-locators at the Relevant Facilities.</p>
Interference Management and Design	8.1.2	<p>The measurement and testing by the Access-Seeker requires the support of the Access Provider and any Existing Co-locator. The current clause does not allow for this. This can be accommodated by inserting "and any Existing Co-locator" into the penultimate sentence.</p> <p>The last sentence in this clause creates ambiguity as to when testing is required. It suggests that the testing is only necessary where any of the parties rearrange their equipment. It is true that testing is required in such circumstances, but it is also required for new proposals for co-location. The insertion of the word "also" clarifies that testing is not exclusively required when equipment is rearranged.</p>
Interference	8.1.3	<p>Inclusion of the word "Unacceptable" before "Performance Degradation to be minimised" indicates that UPD may be reduced but</p>

Document	Clause	Comment
Management and Design		remain "Unacceptable".
Interference Management and Design	8.1.3(a)	Antenna minimisation is a technique rather than a type of technology. For accuracy, the word technology should be removed from this section. This is consistent with the suggested amendments to the Operations Manual on the same point.
Interference Management and Design	8.1.5(a)(ii)	The last word of this clause needs to be amended to band(s), to take into account the fact that it refers to the receive band of more than one Party.
Interference Management and Design	9.1.3	The solution referred to in this clause must specify any proposed changes to either the Access Provider Equipment or to the equipment of any Existing Co-locator equipment. The current drafting does not achieve this.
Interference Management and Design	9.1.10	The Commission has provided guidance for expert determinations under clause 10.1.5 which is a similar clause. This is a good suggestion and should be done consistently throughout the document. This will involve inserting the Commission's sentence from clause 10.1.5 into all sections involving expert determinations. These are listed directly below.
Interference Management	9.3.2; 9.4.3; 9.4.8; 9.4.19;	As above.

Document	Clause	Comment
and Design	9.4.26; 9.5.3; 9.5.5; 9.5.10; 9.5.44; 9.5.48; 10.2.4	
Interference Management and Design	9.1.12	This clause ought to refer to the party proposing the changes, rather than the party causing the changes. This will decrease the uncertainty that may arise surrounding the cause of the changes.
Interference Management and Design	9.1.9(a)	To ensure that it is clear that the minimal risk of Unacceptable Performance Degradation applies to both the Access Provider Equipment and to the Existing Co-locator equipment, the word “to” needs to be inserted before “the equipment of any Existing Co-locators...”
Interference Management and Design	9.1.13	To ensure that any Existing Co-locators are included in the testing procedures in this clause, the term “Parties” ought to be used.
Interference Management and Design	9.4.15	Uses “Unavoidable Unacceptable Performance Degradation”. As discussed above, this term is confusing as it essentially creates a second threshold which confuses the standard of degradation that is acceptable as a result of co-location. We set out above, in more detail, why this defined term ought to be deleted. Each clause that refers to Unavoidable Unacceptable Performance Degradation will need to be amended to reclaim the certainty that the use of the quantifiable threshold of

Document	Clause	Comment
		“Unacceptable Performance Degradation” ensured. Vodafone suggests that this clause (and others) be redrafted so as to refer to the “Unacceptable Performance Degradation” threshold and to be consistent. This is another opportunity to ensure clarity, certainty and consistency throughout the document. The other clauses affected are listed directly below.
Interference Management and Design	9.4.22 9.5.15 9.5.20 9.5.25 9.5.30 9.5.35 9.5.40	As above.
Interference Management and Design	9.4.28	It appears that due to the changes in Schedule 5, some of the clause numbers referred to in 9.4.28 are incorrect. The correct clause numbers are 9.4.17, 9.4.19, 9.4.24 and 9.4.26.
Interference Management and Design	9.5.14	Word missing “as”.
Interference Management	9.5.18 and	Using the term “Business Hour” to define the radiation period under this clause is unhelpful. The objective of the clause is to test the Access Seeker’s Equipment at a time during which the Relevant Facility experiences relatively high traffic. This may well be

Document	Clause	Comment
and Design	9.5.23	<p>a business hour for Facilities that serve commercial areas, but for Facilities which serve suburban or residential areas, this is more likely to be during the evening. To provide for the different situations the use of the term “High traffic Period” should replace “Business Hour”.</p> <p>The word “hour” was omitted from the final sentence in clause 9.1.18. The hour used for the radiation test needs to be determined by the Access Provider and any Existing Co-locator as they hold the necessary records to determine when would be an appropriate high traffic period..</p>
Interference Management and Design	9.5.39	<p>This clause appears to be missing the word “Unacceptable” before “Performance Degradation”. The effect of this omission is that it means that any Performance Degradation, however insignificant, experienced by the Access Seeker will come within that clause and requires Notice and that the parties agree a solution. All other sections which invoke the notice procedure relate only to Unacceptable Performance Degradation, rather than to any level of degradation. This clause should be amended to be consistent with the rest of Schedule 5.</p>
Interference Management and Design	9.5.47	<p>This clause is intended to list all the clauses in section 9.5 which place obligations on the Access Seeker. Clause 9.5.42 seems to have been excluded from the list in error. Clause 9.5.42 should be inserted into the list to maintain consistency and completeness.</p>
Interference Management	9.5.48	<p>Unlike all of the other clauses which invoke the expert determination procedures, this clause only refers to the Dispute Resolution procedures, not the expert determination procedure. This is inconsistent and may lead to uncertainty as to which Dispute Resolution procedures apply. Going through the entire Disputes Resolution procedure will be expensive and time</p>

Document	Clause	Comment
and Design		consuming and is inappropriate for these technical points. This should be amended so that it is consistent with all the other clauses in Schedule 5 which invoke the Dispute Resolution Procedure. This would include providing for the application of the guidance principles in Clause 5.2.
Interference Management and Design	10.2.1	There is a word missing in this clause, which is “notice”.
Interference Management and Design	10.2.4	This section again only refers to Dispute Resolution procedure and does not limit it to expert determinations. In the interests of clarity and consistency, this clause ought to be amended to be identical with the various other clauses which refer to the Dispute Resolution Procedure.
Interference Management and Design	10.2.5	This clause should read “reasonably necessary” rather than “reasonable necessary”.

Table 7: Mobile Co-location Implementation Plan

Document	Clause	Comment
Implementation Plan	3.1	<p>An Access Provider must not be required to provide the Mobile Co-location Service, including during the Soft Launch period, to an Access Seeker that has not submitted a Request.</p> <p>This change has been made necessary as a result of the Commission’s amendment to the definition of “Access Seeker” in the Mobile Co-location General Terms.</p>
Implementation Plan	3.1.1	<p>An Access Provider must not be required to provide the Mobile Co-location Service to an Access Seeker that has not met the prerequisites set out in the Mobile Co-location General Terms and the Mobile Co-location Operations Manual.</p> <p>An Access Seeker must, therefore, not be able to submit a Site Data Pack Application to the Access Provider for delivery of the Mobile Co-location Service unless it has met those prerequisites. There should be no exception to this rule.</p> <p>Further, it is not clear which provisions of the Mobile Co-location Implementation Plan (if any) the newly inserted words are intended to apply.</p>
Implementation Plan	4.2	<p>Clarify that the objectives of the Soft Launch relate to both the Access Provider and the Access Seeker.</p> <p>Further clarify that the Soft Launch is additionally important to the Access Seeker who needs to learn how to progress the</p>

Document	Clause	Comment
		<p>different stages of the end-to-end process and to obtain training from the Access Provider in the use of provisioning systems and Application forms (as described in the Mobile Co-location Operations Manual).</p> <p>The Soft Launch objective should reflect this.</p>
Implementation Plan	4.3 & 4.4	<p>Vodafone believes that the objectives in clause 4.2 can only be achieved through a longer Soft Launch that involves performing several iterations of the Applications procedures.</p> <p>Vodafone believes it is unreasonable to expect an Access Provider to identify and correct all faults in the Mobile Co-location, supporting systems and processes that may prevent the Access Provider from fully implementing the Mobile Co-location Service in accordance with the Mobile Co-location Terms with the information obtained from a single set of 15 Applications, all of which may be accepted for processing in the first 5 Working Days.</p> <p>Since the Draft Determination provides that the Performance Penalties are only waived in relation to the first 15 Applications, Vodafone is also concerned that the Access Provider may find itself in a position where the Performance Penalties will apply to some Applications that are being processed simultaneously with the first 15 Applications.</p> <p>Vodafone suggests that the Soft Launch provisions apply to:</p> <ul style="list-style-type: none"> • Applications accepted for processing during the first 40 Working Day period (in which the Access Provider would accept and

Document	Clause	Comment
		<p>process up to 10 Site Data Pack Applications per Access Seeker each 5 Working Days); or</p> <ul style="list-style-type: none"> • if this is later, to the first 5 Applications per Access Seeker, <p>(Soft Launch Applications).</p> <p>Performance Penalties would not be payable in relation to those Soft Launch Applications.</p> <p>Vodafone has also suggested consequentially increasing the maximum Soft Launch period of 200 Working Days by an amount equivalent to the longer period over which an Access Provider may accept Soft Launch Applications for processing.</p>
Implementation Plan	4.3 & 4.4	<p>Vodafone notes that the short Soft Launch proposed by the Commission creates a real risk that the Access Provider may be required to process some Applications, to which BAU requirements apply, ahead of or simultaneously with any Soft Launch Applications.</p> <p>This risk arises from the variable time that each step in the processing an Application may take, with the completion of each step dependent on a variety of factors, including Access Seeker action.</p> <p>Vodafone notes that, as a result, an Access Provider may be required to process an Application to which Performance Penalties apply – and be expected to have identified and corrected all faults that process – before or at the same time as the Access</p>

Document	Clause	Comment
		<p>Provider is required to perform that process in relation to the Soft Launch Applications.</p> <p>Vodafone submits that a Soft Launch mechanism that permits such a result is:</p> <ul style="list-style-type: none"> • contrary to the objectives of Soft Launch under clause 4.2; and • unreasonable. <p>Vodafone therefore submits the Soft Launch mechanism described above.</p>
Implementati on Plan	5.1	Clarify that delivery of Mobile Co-location Service may commence before the Soft Launch is complete, rather than the two necessarily occurring in parallel with each other.
Implementati on Plan	5.4 and 7	<p>Vodafone believes it is unprecedented and unreasonable to expect an Access Provider to have, within 5 Working Days:</p> <ul style="list-style-type: none"> • developed a Common Format Site Database populated with data in accordance with Mobile Co-location Operations Manual for all of the Access Provider's Relevant Facilities; and • made all necessary enhancements to its Operational Support Systems to facilitate the Mobile Co-location Service.

Document	Clause	Comment
		<p data-bbox="521 373 902 403"><u>Common Format Site Database</u></p> <p data-bbox="521 472 2042 547">Vodafone believes that it would need at least 80 Working Days from the date of the date of the Determination to develop the Common Format Site Database proposed by the Commission in its Draft Determination.</p> <p data-bbox="521 616 2042 884">Vodafone repeats its submission (made in relation to clause 31 of the Mobile Co-location Operations Manual) that it rejects the scope of the database as outlined by the Commission in its Draft Determination on the basis that the increased scope includes structures that are not Relevant Facilities. e.g. building rooftops, and furthermore would require the database to be populated with approximately double the number of Relevant Facilities (resulting in a significant increase in costs and period required for implementation) without a corresponding increase to the number of Relevant Facilities on or with which an Access Seeker could co-locate.</p> <p data-bbox="521 952 2042 1078">On the other hand, Vodafone believes that a 5 Working Day timeframe would be achievable for a Common Format Site Database of the scope agreed by the TCF and described in Vodafone’s submission on clause 31 of the Mobile Co-location Operations Manual.</p> <p data-bbox="521 1147 2042 1222">Vodafone therefore suggests amending the scope of the Common Format Site Database but retaining the “Day Zero + 5 Working Day” timeframe.</p> <p data-bbox="521 1291 2042 1319">If the Commission does not accept Vodafone’s submission regarding the scope of the Common Format Site Database, then</p>

Document	Clause	Comment
		<p>Vodafone submits that the timeframe for Access Provider to provide their database be amended to “Day Zero + 80 Working Days” (with the necessary consequential changes being made).</p> <p><u>Operational Support Systems</u></p> <p>Vodafone believes that a 5 Working Day timeframe for making all necessary enhancements to its Operational Support Systems to facilitate the Mobile Co-location Service would be achievable if the Commission accepts Vodafone’s submission in relation to the longer Soft Launch.</p>