



ZICTA

Model Co-location Offer

November 2015

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Background

The Zambia Information and Communications Technology Authority developed the Model Colocation Offer in consultation with the Industry Stakeholders. This document is meant to provide essential information for parties that would want to collocate.

1 Objectives

Introduction

In the absence of established and approved Reference Co-location Offers from the main electronic communications operators in Zambia this document sets out a composite Model Co-location Offer (MCO) considered by the Zambia Information and Communications Authority to include the elements essential to promote a competitive and developing electronic communications market and to stimulate appropriate investment in infrastructure, networks and services.

The document includes a wider range of services than most operators would be able, or expected, to offer. It is intended as an example, from which the appropriate services would be selected to create an example with which an actual offer and agreement can be compared. The existence of the model is intended to help the industry understand what is expected of them under the Authority's Regulations, and to help new and recent entrants understand the range of services that are, or could be, available to help them develop their business, together with a view of the terms, conditions and tariffs that could be expected at an early stage in the development of their business plans.

The document is presented as an offer made by one operator to the other. In practice an offer would typically be converted into an agreement by selecting the appropriate services offered by each party from their respective offers, adapting the procedures to suit the two parties, modifying the legal terms and conditions through negotiation, and adding schedules setting out details of the numbers, locations and capacities etc of the initial services to be provided. This would then be brought together as a single legal document forming the agreement between the parties. It would also be possible to form individual agreements for the services provided by each party to the other.

Typically each of the descriptions of the services would be presented as an annex, with separate schedules clearly listing which services are to be provided at which locations and the applicable tariffs. The schedules would be subject to revision as the needs of the parties develop with the market reflecting changes in capacity and extensions to networks. New annexes may be added as new services are developed.

The initial forecasts of demand and the initial orders for service form part of the agreement and would be included as schedules. As forecasts, service descriptions and tariffs are updated and as orders for new services, new points of interconnection and additional/changed capacity are added the agreement will evolve. The agreement together with the various annexes and schedules need to be brought under tight change control so that each party is aware at all times of the details of the agreement in force.

The remainder of this document consists of:

- An example of Agreement Terms;
- Annex 1 Outlines of the key processes;
- Annex 2 Location of the available services;
- Annex 3 Technical Standards
- Annex 4 Model service definitions

Each of these sections should be taken as being strongly indicative of the content that the Authority may consider acceptable in the event that the parties are unable to reach agreement and refer to the Authority for resolution.

2 Example template for Agreement Terms

This co-location agreement (this “Agreement”) is entered into this Day of2015 between [Providing Operator] (“Providing Operator”) and [Using Operator] (“Using Operator”).

2.1 Recitals

Whereas, the Providing Operator is licensed under the Information and Communications technologies Act 2009 (the “Act”) and the Regulations promulgated thereunder from time to time by the Zambia Information and Communications Authority (“ the Authority”) to establish, install, operate and use an electronic communications System for the provision of Electronic communications Services in Zambia;

Whereas, the Using Operator is licensed under Section 12 of the Act and the Authority Regulations promulgated thereunder to establish, install, operate and use a electronic communications System for the provision of Electronic communications Services in Zambia;

Whereas, in order for Providing Operator and Using Operator to use their respective Electronic communications Systems to provide the broadest range of services to the largest number of people in Zambia and as required by their respective licences in accordance with the principles of neutrality, non-discrimination and equality of access, Providing Operator and Using Operator have elected to connect their respective systems.

Now, therefore, in consideration of the foregoing and of the mutual covenants and agreements contained in this Agreement, and intending to be legally bound thereby, the Parties hereby agree as follows:

2.1.1 Article 1: Scope

The purpose of connecting the systems of Providing Operator and Using Operator is to allow the parties each or jointly to provide a range of services to end users and to other operators.

This agreement establishes the conditions under which Using Operator may locate items of electronic communications equipment and associated ancillary equipment in or on property owned or under the control of Providing Operator to facilitate the provision of electronic communications services by Using Operator. This agreement establishes how the parties will provide, serve and invoice a range of services.

This agreement may be associated with an Interconnection Agreement, and/or with an Access Agreement.

2.1.2 Article 2: Definitions

Terms and expressions defined in the Act or the [Access Regulations] promulgated thereunder shall have the same meanings when used in this Agreement.

Additional definitions used by the Parties to be included here.

2.1.3 Article 3: Co-location

Using Party will install electronic communications and associated ancillary equipment in or on property owned or controlled by Providing Party. The Co-location service may include the provision of space for the equipment and may include provision of power, cooling, security, access, and other services.

Other than by mutual written agreement or with the written agreement of the Authority the Services will be provided at all times.

The providing operator and the using operator shall conform with local and international standards and operating guidelines which have been adopted or issued by the Authority as applying to Electronic communications Services in Zambia.

The cost of the services provided will be borne by the parties as set out in this agreement.

Providing Operator may supply Co-location Services to any other licensed operator in Zambia. Neither party shall require the Co-location Services to be used or provided on an exclusive basis.

The Providing Operator shall not restrict the electronic communications traffic passing through equipment located housed under the Co-location Services to the Using Operator's own traffic.

The Providing Operator shall not prevent the Using Operator from connecting its network to third party operators within space provided under the Co-location Services subject to confirmation from the parties that such connection has been agreed.

2.1.4 Article 4: Payment

Using Operator shall pay the amounts due for the services provided as set out in the annexes to the extent that the service has been provided in accordance with the billing process set out in the Annexes.

2.1.5 Article 5: Forecasts, capacity orders

Using Operator will provide forecasts of expected Co-location Service requirements in accordance with the process set out in the Annexes.

Using Operator will use their best efforts to provide accurate forecasts. Such forecasts shall not be legally binding, except to the extent provided for in this agreement and the annexes including the relationship between forecast requirement, actual requirement and the Quality of Service level that applies.

The Operators will place orders for new Co-location Services, and for additional capacity as applicable following the process set out in the schedules.

2.1.6 Article 6: Limitation of Liability, indemnification

Neither Operator has an obligation of any kind to the other Operator beyond the obligation to exercise reasonable skill and care in operating according to the provisions of this Agreement. Neither Operator undertakes any liability for the acts or omissions of a third party provider, except to the extent the third party was an agent of a Party with respect to any act or omission that gives rise to liability hereunder.

Each of the Parties agrees to release, indemnify, defend and hold harmless the other Party from all losses, claims, demands, damages, expenses, suits or other actions, or any liability whatsoever, including, but not limited to, costs and attorneys' fees, whether suffered, made, instituted, or asserted by any other party or person, for invasion of privacy, personal injury to or death of any person or

persons, or for loss, damage to, or destruction of property, whether or not owned by others, resulting from the indemnifying Party's performance or failure to perform under this Agreement, regardless of the form of action.

The indemnification provided for above shall be subject to the following:

The indemnified Party shall promptly notify the indemnifying Party of any action taken against the indemnified Party relating to the indemnification.

The indemnified Party shall have sole authority to defend any such action, including the selection of legal counsel, and the indemnified Party may engage separate legal counsel only at its sole cost and expense.

In no event shall the indemnifying Party settle or consent to any judgement pertaining to any such action without the prior written consent of the indemnified Party.

2.1.7 Article 7: Provision of information

Each Party shall provide appropriate information including, but not limited to, physical space arrangements, location, construction and availability, electrical power and cooling system availability, as is reasonably required by the Using Operator to plan its use of Co-location Services associated with the provision of electronic communications services. Additionally, detailed operating performance and quality standard information will be provided.

Pursuant to the Authority regulations, the Operators shall file a copy of this Agreement with the Authority. Following the filing of this Agreement each Operator shall provide the Authority with such information as the Authority may request from the Operator individually, and shall share the costs of providing any such information that the Authority may request of them jointly.

2.1.8 Article 8: Confidentiality

Either Operator may disclose to the other proprietary or confidential Customer, technical, or business information in written, graphic, oral or other tangible or intangible forms ("Confidential Information"). In order for information to be considered Confidential Information under this Agreement, it must be marked "Confidential" or "Proprietary", or bear a marking of similar import. Orally disclosed information shall be deemed Confidential Information only if contemporaneously identified as such and reduced to writing and delivered to the other Operator with a statement or marking of confidentiality within twenty (20) calendar days after oral disclosure.

In order to protect such Confidential Information from improper disclosure, each Operator agrees:

- That all Confidential Information shall be and shall remain the exclusive property of the source;
- To limit access to such Confidential Information to authorised employees who have a need to know the Confidential Information for the performance of this Agreement;
- To keep such Confidential Information confidential and to use the same level of care to prevent disclosure or unauthorised use of the received Confidential Information as it exercises in protecting its own Confidential Information of a similar nature;

- Not to copy, publish or disclose such Confidential Information to others, or to authorise anyone else to copy, publish, or disclose such Confidential Information to others without prior written approval of the source;
- To return promptly any copies of such Confidential Information to the source at its request; and
- To use such Confidential Information only for the purposes of fulfilling work or services performed hereunder and for other purposes only upon such terms as may be agreed upon between the Parties in writing.

These obligations shall not apply to any Confidential Information that was legally in the recipient's possession prior to receipt from the source, was received in good faith from a third party not subject to a confidential obligation to the source, now is or later becomes publicly known through no breach of confidential obligation by the recipient, was developed by the recipient without the developing persons having access to any of the Confidential Information received in confidence from the source, or that is required to be disclosed pursuant to judicial process or by the Authority or another governmental agency having appropriate jurisdiction, provided, however, that the recipient shall give prior notice to the source and shall reasonably cooperate if the source deems it necessary to seek protective arrangements.

The obligation of confidentiality and use with respect to Confidential Information disclosed by one Operator to the other shall survive any termination of this Agreement.

2.1.9 Article 9: Intellectual Property

Nothing in this Agreement shall grant, suggest, or imply any authority for one Party to use the name, trademarks, service marks, or trade names of the other for any purpose whatsoever.

Neither Operator shall have any obligation to defend, indemnify or hold harmless, or to acquire any licence or right for the benefit of, or owe any other obligation to have any liability to, any other based on or arising from any claim, demand or proceeding by any third party alleging or asserting that the use of any circuit, apparatus, or system, or for the use of any software, or the performance of any service or method, or the provision of use of any facilities by either Operator under this Agreement constitutes direct or contributory infringement, or misuse or misappropriation of any patent, copyright, trademark, trade secret, or any other proprietary or intellectual property right of any third party.

2.1.10 Article 10: Force Majeure

Each Operator shall be excused from its performance under this Agreement only to the extent, and for so long as, such performance is hindered or prevented by an Act of God, fire, flood or other natural disaster, act of government or state, war, civil commotion or insurrection, riots, embargo, prevention from or hindrance in obtaining any materials, energy or other supplies, unlawful labour strikes outside the control of either Operator and any other cause beyond the control of either Party.

Neither Operator shall be liable to the other for any default arising from force majeure.

2.1.11 Article 11: Term and termination

This Agreement shall be for a renewable fixed term unless :

- either Operator ceases to hold a licence under the Act and the Authority Regulations;
- an order is entered by a court of competent jurisdiction mandating the winding up or dissolution of a Party, or appointing a receiver or liquidator for such Operator or having a comparable effect; or
- It is replaced by mutual agreement of the Operators or by order of the Authority in accordance with the provisions of Article 63 of the Act, in which case this Agreement shall immediately be terminated.

Subject to either Operator obtaining the prior written approval of the Authority to any disconnection of systems and equipment accommodated under this Agreement, this Agreement also may be terminated by either Operator giving six months' notice to the other in the event that either Operator:

- is in material and/or repeated breach of any provision of this Agreement; provided, however, that the breaching party has been notified in writing of its failure by the non-breaching party and the breaching party has not remedied its failure within twenty (20) working days; or,
- Ceases to carry on business.

Upon termination of this Agreement each Operator shall take such steps and provide such facilities as are necessary for removal by Using Operator of any equipment accommodated under the Agreement.

Termination of this Agreement shall be without prejudice to an Operator's rights, liabilities or obligations that may have accrued prior to such termination.

2.1.12 Article 12: Governing Law

This Agreement, the legal relations between the Operators and any claim instituted by any Party with respect to matters arising under or in connection with or in respect of this Agreement, including but not limited to the negotiation, execution, interpretation, coverage, scope, performance, breach, termination, validity, or enforceability of this Agreement, shall be governed by and construed in accordance with the laws of the Zambia without regard to conflict of law rules.

2.1.13 Article 13: Assignability

This Agreement and all of the provisions hereof shall be binding upon the Operators and their respective successors and assigns. Neither this Agreement nor any of the rights, interest or obligations hereunder shall be assigned by any Operator without the prior written consent of the other Operator hereto. Provided that the consent shall not be unreasonably withheld.

2.1.14 Article 14: English Language

This Agreement has been executed in the English Language which shall be the binding and controlling language for all matters relating to the meaning or interpretation of this Agreement.

2.1.15 Article 15: Headings; Plural and Singular

The headings contained in this Agreement are for descriptive purposes only and shall not be considered a part hereof for purposes of determining the Operators' rights and obligations hereunder. Any of the terms defined herein may, unless the context otherwise requires, be used in the singular or the plural, depending on the reference.

2.1.16 Article 16: Entire Agreement

This Agreement represents the entire understanding between the Operators in relation to Co-location and supersedes all previous understandings, agreements or commitments whatsoever, whether oral or written. All references to articles, sections, clauses, annexes shall be deemed references to such part of this Agreement, unless the context shall otherwise require.

2.1.17 Article 17: Notices

Unless otherwise provided in the Agreement, any notifications, service of process, petitions, claims and other Communications requested or permitted pursuant to this Agreement, shall be made in writing and shall be considered validly made when delivered by hand or by courier, facsimile once receipt is verified at the following addresses.

If to (Providing Operator) Address
Attention

With a copy to Address
Attention

If to (Using Operator) Address
Attention

With a copy to Address
Attention

2.1.18 Article 18: Third Parties

Nothing in this Agreement express or implied is intended to confer or shall confer upon any other person or entity other than the Operators any rights, benefits or remedies of any nature whatsoever under or by reason of this Agreement.

2.1.19 Article 19: Waivers

The waiver of the rights derived from this Agreement shall only be effective if made in writing duly sent to the other Operator. No failure of the part of any Operator to exercise, no delay in exercising, no partial exercise of, and no course of dealing with respect to any right, power or privilege under this Agreement shall operate as a waiver hereof.

2.1.20 Article 20: Partial Invalidity

If any provision in or obligation under this Agreement is considered invalid, illegal or unenforceable by a court of competent jurisdiction, such judicial decision must, as regards such invalidity, be strictly interpreted and shall not affect or impair the validity, legality or enforceability of any other provision in or obligation under this Agreement.

2.1.21 Article 21: Counterparts

This Agreement and any amendment hereto or any other agreement (or document) delivered pursuant hereto may be executed by telecopy, in one or more counterparts, and by different Operators in separate counterparts. All of such counterparts shall constitute one and the same agreement (or other document) and shall become effective (unless otherwise provided therein) when one or more counterparts have been signed by each Operator and delivered to the other Operator. Any execution by telecopy shall be followed promptly by the delivery of signed original counterparts to the Party or Parties receiving the telecopy.

In witness whereof, the parties (Operators) have executed this Agreement the day and year first before written.

For (Providing Operator)

By

Name Title

Witnessed

For (Using Operator)

By

Name Title

Witnessed

3 Annex 1: Outline of Key Processes

3.1 Annex 1.1: Forecasting

Before concluding the Agreement and every three months while the Agreement is in force Using Operator will provide a three year forecast of its expected requirements for Co-location Services, by service and by location or geographic area as appropriate. The forecast will be presented in terms agreed between the parties and appropriate for the service. Where appropriate forecasts will include expected requirements for electrical power and cooling services.

The Providing Operator will give a clear statement against each element of the forecast indicating whether sufficient capacity will be available, or where this is not the case, whether alternative capacity can be made available or not.

Note – The Providing Operator is not under an obligation to provide capacity where it does not exist. It is a matter of commercial choice for the Providing Operator whether to invest in additional capacity, or whether the Using Operator has to make alternative arrangements.

3.2 Annex 1.2: Ordering

Requests for services within the levels included in the agreed forecast will be provided within the timescales set out in the quality of service parameters for the particular service.

Where a request for capacity included in an existing agreed forecast cannot be fulfilled within the timescales set out in the quality of service parameters, the Providing Operator will supply a statement clearly stating the current capacity and the requested capacity, setting out the current agreed forecast provided by the Using Operator for the service, explaining the delay, and setting a series of dates by which the capacity will be provided, where appropriate, in stages, to the full required capacity. A copy of this statement will be sent to the Authority.

Requests for services in excess of the forecast will be provided on a best endeavours basis or, where capacity is not available, the provider will supply an explanation of the reasons why the full amount of capacity requested cannot be provided by the requested date, including, where appropriate, a statement of when the full requested capacity could be provided, and a statement of how much capacity could be provided by the requested date. A copy of this statement will be sent to the Authority.

3.3 Annex 1.3: Implementation and testing

The parties will work together to agree an implementation plan for any new service or service upgrade. Once developed the parties will keep each other regularly informed of progress, and of any expected delays, giving reasons. Where delays are unacceptable and considered unjustified, either party may refer the matter to the Authority for consideration.

The parties will cooperate in agreeing a test schedule and in carrying out appropriate testing to verify the service has been provided as expected, in accordance with the relevant standards and specifications.

Once the service has been shown to meet the specification, the service will be formally accepted and will then be ready to be introduced to live service.

3.4 Annex 1.4: Operation and management

Periodically at the instance of any party, the Operators will meet to review the performance of the Co-location Services being provided. Prompt and appropriate action will be taken in situations where the provider fails to meet the agreed Quality of Service levels, particularly where there is a repeating pattern of failure. Where there is evidence of repeated failure to meet Quality of Service levels, or of ineffective action being taken to assure Quality of Service levels will be met, the Using Operator may inform the Authority of the circumstances and ask for an intervention.

3.5 Annex 1.5: Billing and billing disputes

The Providing Operator will be responsible for determining the extent of the service used, and for preparing a bill for the services. Using Operator is responsible for checking and settling the bill within the agreed settlement period.

Where a dispute arises over all or part of a sum a dispute will be raised. Where the individual sum in dispute is less than ZMW X and the total of all sums in dispute that have not been settled is under ZMW Y, then the disputed sum will be paid in full pending investigation and settlement. Where a disputed sum exceeds ZMW X or where the total of all sums in dispute that have not been settled exceed ZMW Y then the disputed sum will not be paid until agreement has been reached to settle the sum, and either party may provide evidence to the Authority requesting intervention to reach a binding settlement within 45 days. Where the Authority has investigated and reached a conclusion, the Authority conclusion will be binding, and the parties will settle the dispute within 15 working days of the Authority decision.

Where the total of unpaid or disputed sums in a period exceeds 10% of the total billed and due for payment in the same period then the provider may refer the matter to the Authority for investigation including proposals for appropriate action. The Authority will investigate within 20 working days providing a binding conclusion to both parties. In extreme cases where it can be shown that the default will lead to significant and unacceptable financial exposure for either party, the Authority may authorise disconnection of the operators within 30 days and will publicise this intention accordingly. Under no circumstances will the parties degrade connection between their networks, or disconnect their networks, without either prior agreement between the parties, or, in the absence of such agreement, with the agreement of the Authority and following appropriate public notice.

3.6 Annex 1.6: Facility changes

Where Providing Operator identifies a need to make a change to its facilities which will, or may, affect the other operator, then the Providing Operator must give as much notice as possible and in any case no less than six months notice of the intended change, identifying the likely impact of the proposed change. The Providing Operator will provide a plan of how the Operators may work together to effect the change with minimal effect on Using Operator's business. Providing Operator will pay any actual costs Using Operator incurs as a direct consequence of the change.

3.7 Annex 1.7: Fault handling

A process will be agreed between the parties for reporting faults or suspected faults. Where possible the process should be automated (e.g. based on exchange of reports using email or other electronic

means) to ensure that a full and accurate record of the report is kept. The process will include appropriate acknowledgements including timestamps on all key exchanges.

Once a fault report is passed between operators the receiving operator is responsible for investigating the report and, where appropriate, taking action to restore service if a fault is found within their network, or in the network of third parties on which the service relies, within the timescales set out in the quality of service parameters. The operator receiving the fault report will provide regular updates on the progress of the investigation and steps being taken to restore service. Once the operator investigating the fault believes that it has been cleared the reporting operator will be informed and the reporting operator will then verify and acknowledge the fault has been cleared.

Where a fault has a significant impact on either Operator, and where practical, the Operators will work together to take appropriate action to restore as much service as possible within the shortest possible time.

Where the same or a similar fault recurs frequently the investigating operator will carry out a more detailed investigation into the cause of the fault, and take appropriate action. Where the same or similar faults are detected more than X times in Y months a report will be prepared and submitted to the Authority for collation and further investigation by the Authority as is deemed appropriate.

3.8 Annex 1.8: Dispute handling

Disputes, other than those relating to billing, as provided for above will be resolved in accordance with the relevant article in the operators' licence and the regulations of the Authority.

During the period of any dispute, before or until resolution by means of arbitration, a Party shall not disrupt service being provided to the other Party, change any level of service being provide to that Party or take any other actions which might materially or adversely affect that Party's service.

3.9. ANNEX 1.9: PROVIDING OPERATORS UNDERTAKING

The providing operator undertakes that it shall not apply less favorable technical and commercial conditions to any competitor than it would apply to itself, subsidiary or affiliate;

The providing operator undertakes to offer to the interconnecting party available capacity to ensure that the interconnecting party renders same level of quality of service;

4 Annex 2

4.1 Annex 2.1 Location Co-location offered by Providing Operator

Co-location is currently available on request at the following locations:

Location	Region	Services available	Power	Air cooling	Notes
Town and Street address, or lat/long		Co-location service, Mast	XKw	YKw	
...					

Co-location may be offered on request at the following locations:

Location	Region	Services available	Power	Air cooling	Notes
Town and Street address, or lat/long		Co-location service, Mast			
...					

The Using Operator may request services at other points in the provider's network. On receipt of such a request the Providing Operator will carry out a technical investigation and will provide a report into the technical feasibility within 45 working days, offering, where appropriate, an alternative location that is physically close if co-location is not found to be technically possible at the requested location.

In all cases a copy of the request will be sent by the requester to the Authority and a copy of the results of the technical investigation will be sent by the Providing Operator to the Authority who may carry out further investigation as appropriate.

5 Annex 3

5.1 Technical standards

5.1.1 Mechanical Loadings

In all cases any static, dynamic and shock loading of the equipment to be collocated will be checked against the mechanical strength of the supporting structure by the Providing Operator using industry standard models and parameter values. (Note – this is particularly relevant for antenna to be mounted on masts where structural integrity under severe wind loading is a key consideration).

5.1.2 Electrical Power Supply

Where electrical power is supplied by the Providing Operator this may be AC, DC, unsecured or secured as available at the location. The characteristics of the supply will be identified and specified for that location as part of the service definition. In particular, attention will be given to specifying the availability of the supply, the tolerance on the supply characteristics, details of the earthing and lightning protection (where appropriate) arrangements, the endurance of back up arrangements, and details of the switchover to and from any back up arrangements.

5.1.3 Cooling

Where appropriate the available cooling capability will be specified as part of an environmental specification for the location as part of the service definition.

5.1.4 Fire standards

Equipment including cables are required to meet the following standards for flammability, production of toxic gasses of combustion:

(Providing Operator to specify standards that apply. Note – Any standards included in this section by the Providing Operator must be no more onerous than are applied to the Providing Operator's own equipment.)

5.1.5 Safety standards

Equipment is required to meet the following standards for electrical and physical safety:

(Providing Operator to specify standards that apply. Note – Any standards included in this section by the Providing Operator must be no more onerous than are applied to the Providing Operator's own equipment.)

5.1.6 Electrical interference and susceptibility

Equipment is required to meet the following standards for electrical interference and susceptibility

(Providing Operator to specify standards that apply. Note – Any standards included in this section by the Providing Operator must be no more onerous than are applied to the Providing Operator's own equipment.)

6 Annex 4:

6.1 Annex 4.1 Services

6.1.1 Annex 4.1.1: Co-location of equipment within a building

Service description

Where suitable space is available or could be made available within an existing building such space as may be requested will be made available to accommodate electronic communications and associated ancillary equipment needed to provide electronic communications services. The equipment may be owned by Using Operator, or owned by a third party.

In all cases all equipment will be compliant with any appropriate approvals required by the Authority, and will meet necessary safety standards.

The space provided will be the minimum needed to accommodate the equipment, together with any associated cabling, power and, where necessary, air handling plant, and provide appropriate access for installation and maintenance.

Details of the environmental conditions required will be agreed between the Operators as necessary. The Providing Operator may provide power and cooling as part of the service, or the Using Operator may make arrangements for their own power and cooling, collocating any necessary equipment including power cables, cooling pipes and heat exchangers in appropriate areas by agreement.

Where necessary to facilitate the required use of the space, non standard building works will be agreed between the parties.

The Providing Operator will ensure appropriate arrangements are in place to assure the physical security of the equipment, but such arrangements will not avoidably hinder or burden the Using Operator's staff or anyone with the seeker's authorisation gaining necessary access to the equipment for maintenance, installation, reconfiguration or other such operations.

Quality of Service parameters

At locations where the provider has identified that this co-location service is available, orders for space to house one standard rack with power of up to 1KW and up to 1KW of cooling will be available within 45 calendar days of an order being placed.

Requests for more space than one rack and/or for more power and/or air cooling at a location identified as having space available will be investigated and a response will be provided within 5 working days, copied to the Authority.

Requests for co-location space at locations not identified as having space available will be investigated and a response will be provided within 10 working days, copied to the Authority.

Charging

Charging for co-location space will be based on the space, power and cooling actually used on a monthly basis. Colocation charges will be cost based and as such any significant fluctuations in the underlying costs and economic fundamentals will be taken into consideration when arriving at the monthly charge.

Charges for any necessary construction work will be by negotiation.

6.1.2 Annex 4.1.2: Co-location of an Equipment Shelter

Service description

Where suitable space for an equipment shelter is available on land under the control of the Providing Operator such space as may be requested will be made available for use by the Using Operator to accommodate equipment of any type that is essential for the Using Operator to construct and operate their network in a shelter to be provided by the Using Operator. The equipment shelter and the equipment it contains may be owned by the Using Operator, or owned by a third party or Operator.

In all cases all equipment will be compliant with any appropriate approvals required by the Authority, and will meet necessary safety standards.

The space to be provided will be the minimum needed to accommodate the shelter and provide appropriate access for installation and maintenance.

The service includes necessary permissions and access to allow an electricity supply from a suitable supplier to connect power to the shelter under an agreement with the Using Operator, or for the Providing Operator and Using Operator to agree to power being supplied by the Providing Operator.

The service further includes necessary permissions to allow the Using Operator to bring necessary buried or overhead cables to the shelter from outside of the site along an agreed route within the site, or to the shelter from another part of the site.

The Providing Operator will ensure appropriate arrangements are in place to assure the physical security of the Using Operator's equipment shelter, but such arrangements will not avoidably hinder or burden the Using Operator or anyone with the Using Operator's authorisation gaining necessary access to the equipment for maintenance, installation, reconfiguration or other such operations.

Details of the layout of the site will be agreed between the Operators as appropriate.

Quality of Service parameters

At locations where the Providing Operator has identified that co-location space is available for shelters, orders for space to accommodate shelters of up to 6 square metres will be available within 45 calendar days of an order being placed.

Requests for more space than 6 square metres at a location identified as having space available for shelters will be investigated and a response will be provided within 5 working days, copied to the Authority.

Requests for co-location space at locations not identified as having space available will be investigated and a response will be provided within 10 working days, copied to the Authority.

Charging

Charging for co-location space will be based on the space used, and, where agreed between the Operators, any agreed charges for power, and will be calculated each month.

Charges for any necessary construction work will be by negotiation.

6.1.3 Annex 4.1.3: Co-location of Radio Equipment

Service description

Where suitable space for radio equipment on a mast under the control of the Providing Operator such space as may be requested will be made available for use by the Using Operator to accommodate radio and associated equipment of any type that is essential for the Using Operator to construct and operate their network. The equipment may be owned by the Using Operator, or owned by a third Operator.

In all cases all equipment will be compliant with any appropriate approvals required by the Authority, and will meet necessary safety standards.

In all cases where the radio equipment uses licensed spectrum, the equipment will operate under a spectrum licence granted by the Authority to the Using Operator or to a third Operator providing services to the Using Operator.

The space to be provided will be the minimum needed to accommodate the equipment and provide appropriate access for installation and maintenance.

The Operators will verify that the radio frequencies and power levels to be used will not cause undue interference with other equipment in use at the site. Where there are concerns about interference the Operators will strive to find an alternate acceptable location, frequency, power level or equipment. Where such cannot be agreed within ten days of the request being made the matter will be documented and reported to the Authority for further investigation.

The Service will include a specification of the protection from interference to be provided to the Using Operator's equipment, in particular protection against the installation with the Providing Operator's agreement but without the Using Operator's agreement of further radio equipment in the locality giving rise to unacceptable levels of interference.

The service includes necessary permissions to allow an electricity supply from a suitable supplier to connect power to the radio equipment under an agreement with the Using Operator, or for the Providing Operator and Using Operator to agree to power being supplied by the Providing Operator.

The service further includes necessary permissions, where necessary, to allow the Using Operator to bring necessary buried or overhead cables to the radio equipment from outside of the site along an agreed route within the site, and/or from another part of the site, and/or between equipment and its antenna system.

The Providing Operator will ensure appropriate arrangements are in place to assure the physical security of the Using Operator's radio equipment, but such arrangements will not avoidably hinder or burden the Using Operator or anyone with the Using Operator's authorisation gaining necessary access to the equipment for maintenance, installation, reconfiguration or other such operations.

Details of the layout and mounting of the radio equipment will be agreed between the Operators as appropriate.

The Using Operator and Providing Operator will cooperate to develop appropriate site specific procedures to assure the safety of any personnel working on any radio equipment at the site.

Quality of Service parameter

At locations where the Providing Operator has identified that space is available for radio equipment on the appropriate azimuth orders for space to house one radio system will be available within 45 calendar days of an order being placed.

Requests for space for more than one radio equipment at a location identified as having space available for radio equipment on the appropriate azimuth will be investigated and a response will be provided within 5 working days, copied to the Authority.

Requests for space for radio equipment at locations not identified as having space available, or not having space available on the required azimuth will be investigated and a response will be provided within 10 working days, copied to the Authority.

Charging

Charging for space for radio equipment will be based on the space used, and, where agreed between the Operators, any agreed charges for power, and will be calculated each month.

Charges for any necessary construction work will be by negotiation.

6.1.4 Annex 4.1.4: Virtual Co-location

Service description

Equipment to the specification set by Using Operator will be obtained, installed, connected, operated and maintained by Providing Operator to the Using Operator's standards and instructions.

Title in the equipment may reside with either Operator or with a third party.

Further details of the service to be agreed between the Operators.

Quality of Service parameters

To be agreed between the Operators.

Charging

To be agreed between the Operators.

6.1.5 Annex 4.2.1: Co-location of cables in or on an operational building

Service description

Where spare space exists in Providing Operators ducts or cable runs within or on an operational building, space will be provided for installation of metallic or optical fibre cable forming part of Using Operator's network or essential for its operation. The cables may be used to connect items of equipment within the operational building or to connect equipment in the building to a communications network. The cable may be owned by the Using Operator, or owned by a third Operator and may be connected to the Using Operator's equipment, the Providing Operator's equipment or to third party equipment.

In all cases cables will be compliant with any appropriate approvals required by the Authority, and will meet necessary safety standards. Cables will meet appropriate technical standards for the avoidance of harmful radiation, taking into account the location of the cable run and its proximity to other equipment.

The space to be provided will be the minimum needed to accommodate the cable and provide appropriate access for installation and maintenance.

The Providing Operator will ensure appropriate arrangements are in place to assure the physical security of Using Operator's cables, but such arrangements will not avoidably hinder or burden the Using Operator or anyone with the Using Operator's authorisation gaining necessary access to the equipment for maintenance, installation, reconfiguration or other such operations.

The Operators will cooperate to develop plans for necessary construction work to allow cables to enter and leave the Providing Operators duct and cable run system.

The Operators will cooperate to agree methods for installation, repair and removal of the cables.

Quality of Service parameters

Requests for duct and cable run space for cable at specific locations will be investigated and a response will be provided within 10 working days, copied to the Authority.

At locations where the Providing Operator has identified that duct space is available, or could be made available by removal of unused cable, installation may take start within 45 calendar days of an order being placed.

Charging

Charging for space for duct space will be based on the cross sectional space used and the length over which it is used and will be charged each month.

Charging for any necessary construction work and for installation, removal, or repair work will be by negotiation.

6.1.6 Annex 4.2.2: Co-location of cables in ducts

Service description

Where spare space exists in Providing Operators ducts space will be provided for installation of metallic or optical fibre cable forming part of Using Operator's network. The cable may be owned by the Using Operator, or owned by a third Operator.

In all cases all equipment will be compliant with any appropriate approvals required by the Authority, and will meet necessary safety standards. Cables will meet appropriate technical standards for the avoidance of harmful radiation, taking into account the location of the cable run and its proximity to other equipment.

The space to be provided will be the minimum needed to accommodate the cable and provide appropriate access for installation and maintenance.

The Providing Operator will ensure appropriate arrangements are in place to assure the physical security of the Using Operator's equipment, but such arrangements will not avoidably hinder or burden the Using Operator or anyone with the Using Operator's authorisation gaining necessary access to the equipment for maintenance, installation, reconfiguration or other such operations.

The Operators will cooperate to develop plans for necessary construction work to allow cables to enter and leave the Providing Operators duct system.

The Operators will cooperate to agree methods for installation, repair and removal of the cables.

Quality of Service parameters

Requests for duct space for cable at specific locations will be investigated and a response will be provided within 10 working days, copied to the Authority.

At locations where the Providing Operator has identified that duct space is available, or could be made available by removal of unused cable, installation may take start within 45 calendar days of an order being placed.

Charging

Charging for space for duct space will be based on the cross sectional space used and the length over which it is used and will be charged each month.

Charging for any necessary construction work and for installation, removal, or repair work will be by negotiation.

6.1.7 Annex 4.2.3: Co-location of cables on poles

Service description

Where spare space exists on Providing Operator's poles and there is adequate mechanical strength for the proposed cable, space will be provided for installation of metallic or optical fibre cable forming part of Using Operator's network. The cable may be owned by the Using Operator, or owned by a third Operator.

In all cases all equipment will be compliant with any appropriate approvals required by the Authority, and will meet necessary safety standards. Cables will meet appropriate technical standards for the avoidance of harmful radiation, taking into account the location of the cable run and its proximity to other equipment.

The space to be provided will be the minimum needed to accommodate the cable and provide appropriate access for installation and maintenance.

The Providing Operator will ensure appropriate arrangements are in place to assure the physical security of the Using Operator's equipment, but such arrangements will not avoidably hinder or burden the Using Operator or anyone with the Using Operator's authorisation gaining necessary access to the equipment for maintenance, installation, reconfiguration or other such operations.

The Operators will cooperate to agree methods for installation, repair and removal of the cables.

Quality of Service parameters

Requests for pole space for cable at specific locations will be investigated and a response will be provided within 10 working days, copied to the Authority.

At locations where the Providing Operator has identified that pole space is available, or could be made available by removal of unused cable, installation may take start within 20 calendar days of an order being placed.

Charging

Charging for space for pole space will be based on the cross sectional space used and the length over which it is used and will be charged each month.

Charging for any necessary construction work and for installation, removal, or repair work will be by negotiation.

7 Tariffs

Tariffs for the Services offered under the terms of the MCO shall be set in accordance with the following principles:

Service	Charging structure	Charging level
Co-location	<ul style="list-style-type: none">• Event based charges, plus monthly charges.	<ul style="list-style-type: none">• Priced by negotiation, but cost based.