



An Access Order Relating to the Local Loop Unbundling and Ancillary Services Terms and Conditions in the Reference Offer of the Bahrain Telecommunications Company B.S.C. (“Batelco”)

LLU Reference Offer Order

05 May 2011

Reference: MCD/05/11/055

Non-Confidential Version

In this document: [X] indicates information removed due to confidentiality

Purpose: to set the terms and conditions and charges of Batelco’s Local Loop Unbundling and ancillary services.

TABLE OF CONTENT

REFERENCE OFFER ORDER	8
ANNEX A: LEGAL REASONING	10
<i>SECTION 1: LEGAL BASIS AND REASONING FOR NON-PRICE TERMS ...</i>	<i>11</i>
<i>SECTION 2: LEGAL BASIS AND REASONING FOR PRICE TERMS</i>	<i>57</i>
<i>SECTION 3: OTHER COMMENTS RAISED BY BATELCO</i>	<i>104</i>
<i>SECTION 4: REPOSE TO BATELCO'S CONCERNS RAISED IN ANNEX D OF BATELCO'S SUBMISSION</i>	<i>109</i>
ANNEX B: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICE TERMS (clean version)	118
ANNEX C: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICE TERMS (with track changes showing amendments after reviewing Batelco's response to the Draft Order)	176
ANNEX D: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICE TERMS (Draft Order version with track changes)	244
ANNEX E: CHRONOLOGY FOR THE LOCAL LOOP UNBUNDLING SERVICE	312
ANNEX F: LIST OF KPIs TO BE PUBLISHED BY BATELCO ON A QUARTERLY CALENDAR BASIS	324

Table of Figures in Annex A

FIGURE 1:	UMPL AND TIE CABLES VALIDATION AND DELIVERY TIMES	21
FIGURE 2:	METHODOLOGY FOR ADJUSTING THE LLU PRICES IN OTHER COUNTRIES TO BE COMPARABLE WITH THE KINGDOM OF BAHRAIN	76
FIGURE 3:	BREAKDOWN OF THE COPPER LOCAL LOOP (AN01) BETWEEN 2004 AND 2009 (SOURCE: BATELCO'S REGULATED ACCOUNTS)	97
FIGURE 4:	EVOLUTION OF THE CAPITAL EMPLOYED FOR THE COPPER LOCAL LOOP (AN01) BETWEEN 2004 AND 2009 (SOURCE: BATELCO'S REGULATED ACCOUNTS)	97
FIGURE 5:	A DIAGRAM SHOWING THE TIME BETWEEN THE COMMERCIAL LAUNCH OF LLU AND WHEN OLO CAN START PLACING UMP REQUESTS	105

Table of Charts in Annex A

CHART 1:	SERVICE LEVELS RELATED TO THE UMP SERVICE VALIDATION + DELIVERY TIMES (SOURCE: ACCESS PROVIDER ROS)	22
CHART 2:	SERVICE REBATES RELATED TO THE UMP SERVICE DELIVERY FOR THE FIRST LATE WORKING DAY (SOURCE: ACCESS PROVIDER ROS)	23
CHART 3:	SERVICE LEVELS RELATED TO FAULT RESPONSE AND REPAIR TIME (SOURCE: ACCESS PROVIDER ROS)	25
CHART 4:	REBATES FOR FAULT RESPONSE AND REPAIR TIME FOR THE FIRST LATE WORKING DAY (SOURCE: ACCESS PROVIDER ROS)	26
CHART 5:	DEFINITION OF THE ECONOMIC SPACE	67
CHART 6:	THE VARIOUS COST COMPONENTS FOR OLO USING LLU (EXCLUDING RETAIL COSTS)	68
CHART 7:	DISTRIBUTION OF AN01 ACCESS COPPER COSTS	69
CHART 8:	LLU RENTAL CHARGE IN EU27 IN 2009 – RATE OF THE 28 APRIL 2010	74
CHART 9:	ADJUSTED LLU RENTAL CHARGE IN BENCHMARKED SMALLER STATES	77
CHART 10:	NUMBER OF TILES NEEDED FOR A CO-MINGLED RACK	80
CHART 11:	NUMBER OF TILES NEEDED FOR 1 RACK IN A DEDICATED SPACE	81
CHART 12:	NUMBER OF TILES NEEDED FOR 3 RACKS IN A DEDICATED SPACE	81

Table of Tables in Annex A

TABLE 1:	A COMPARISON BETWEEN BATELCO'S PROPOSED FIGURES AND THE AUTHORITY ORDERED FIGURES FOR REBATES AND REBATE CAPS	24
TABLE 2:	PREMIUM REPAIR TIME COMPARISON BETWEEN FT AND OPENREACH (SOURCE: FT RO AND OPENREACH WEBSITE)	26
TABLE 3:	COMPARISON BETWEEN DIFFERENT OPERATOR'S COLOCATION OPTIONS READINESS TIME (SOURCE: ACCESS PROVIDER ROS)	47
TABLE 4:	TIMES RELATED TO THE PROVISION PROCESS FOR UMP ORDER	62
TABLE 5:	TIMES RELATED TO THE CESSATION PROCESS FOR UMP ORDER	62
TABLE 6:	GRAND TOTAL MONTHLY CHARGE OUT	62
TABLE 7:	DISTRIBUTION OF COSTS RELATED TO THE PROVISIONING/CESSATION PROCESS FOR UMP ORDER	63

TABLE 8:	BENCHMARK OF ADMINISTRATIVE AND TECHNICAL TASKS FOR THE UMP CONNECTION PROCESS	64
TABLE 9:	DISTRIBUTION OF RELEVANT COSTS RELATED TO THE CONNECTION PROCESS FOR UMP ORDER	64
TABLE 10:	DISTRIBUTION OF COSTS RELATED TO THE PROCESS FOR REJECT, REVERSAL, AND WITHDRAWAL CHARGE OF A UMP ORDER	66
TABLE 11:	ULMP RENTAL CHARGE CALCULATION	70
TABLE 12:	ULMP RENTAL CHARGE AFTER REMOVING IRRELEVANT COST CATEGORIES	71
TABLE 13:	ULMP RENTAL CHARGE AFTER REMOVING IRRELEVANT COST AND APPLYING THE CURRENT COST OF CAPITAL	71
TABLE 14:	BENCHMARK OF EQUIPMENT'S ASSET LIVES	72
TABLE 15:	ADJUSTED DEPRECIATION CALCULATION	72
TABLE 16:	ULMP RENTAL CHARGE CALCULATION	73
TABLE 17:	COST DRIVERS FOR LLU COST	75
TABLE 18:	TIMES RELATED TO THE PROVISIONING/CESSATION PROCESS FOR SNFM ORDER	79
TABLE 19:	PRICE DIFFERENCE WITH THE PLANNED ACCESS DURING WORKING HOURS	83
TABLE 20:	NEW PRICES IN LINE WITH INTERNATIONAL LEVELS	83
TABLE 21:	BATELCO'S ANNUAL COST CALCULATION FOR A 600 PAIRS HDF BLOCK	84
TABLE 22:	THE AUTHORITY'S ANNUAL COST CALCULATION FOR A 100 PAIRS HDF BLOCK	85
TABLE 23:	BATELCO'S ANNUAL COST CALCULATION FOR A 600 PAIRS TIE CABLE	86
TABLE 24:	THE AUTHORITY'S ANNUAL COST CALCULATION FOR A 100 PAIRS TIE CABLE	86
TABLE 25:	AN 01 ACCESS COPPER – 2008-2009 COMPARISON	97
TABLE 26:	LLU PENETRATION AND POPULATION IN THE BENCHMARKED COUNTRIES (SOURCE ECTA AND CIA WORLDFACTBOOK)	107

LIST OF ACRONYMS USED

APM	Accounting Procedures Manual
AGCOM	Italian NRA
The Authority	The Telecommunications Regulatory Authority of the Kingdom of Bahrain
Batelco	Bahrain Telecommunications Company B.S.C
BD	Bahraini Dinar
BSN	Base Station Node
CAPEX	Capital Expenditure
CAT	Customer Access Tail
CLTQS	Centralized Line Testing and Pre-Qualification Solution
CPR	Central Population Register
CSI	Customer Sited Interconnection
DP	Distribution Point
EPMU	Equi-Proportionate Mark-up
ETSI	European Technical Standards Institute
FAC	Fully Allocated Cost
G1	Grade 1 staff - Batelco classification
GCC Countries	Gulf Cooperation Council Countries
HDF	Handover Distribution Frame
ISC	Interconnect Specific Charge
ISI	In-Span Interconnection
ISP	Internet Service Provider
Kbps	Kilobits per second
KPI	Key Performance Indicator
LCT	Line Continuity Test
LLCO	Local Leased Circuit for OLOs
LLU	Local Loop Unbundling

LLU SD	Local Loop Unbundling Service Description
LLU RO	Local Loop Unbundling Reference Offer
LPQM	Line Plant Query Manager
LRIC	Long Run Incremental Cost
MB	Mega Bytes
Mbps	Megabits per second
MDF	Main Distribution Frame
MPF	Metallic Path Facility
MPLS	Multi-Protocol Label Switching
MSAN	Multi-Service Access Node
NGN	Next General Network
NRA	National Regulatory Authority
OLO	Other Licensed Operator
OFCOM	The Office of Communications (telecommunications regulator in the UK)
Ofgem	The Office of the Gas and Electricity Markets in the UK
POP	Point of Presence
RAN	Radio Access Network
RAO	Reference Access Offer
RIO	Reference Interconnect Offer
RO	Batelco's approved Reference Offer
SHDSL	Symmetrical High-speed Digital Subscriber Line
SNFM	Service Node Facilities Management
TRA	See definition of the Authority
UC	Un-attributable Costs
UMP	Unbundled Metallic Path
UMP SD	Unbundled Metallic Path Service Description
UMPB	Unbundled Metallic Path Backhaul
UMPB SD	Unbundled Metallic Path Backhaul Service Description

LLU Reference Offer Order



UMPL	Unbundled Metallic Path Line
USO	Has the same meaning as defined for "Universal Services" in the Telecommunications Law
WACC	Weighted Average Cost of Capital
WPNIA	Wholesale Physical Network Infrastructure Access market
WSDL	Wholesale Digital Subscriber Line

REFERENCE OFFER ORDER

1. Pursuant to:
 - a. The exercise of the Telecommunication Regulatory Authority's ("**the Authority**") powers under Article 3(c) (1), 57(b) and 57(e) of the Legislative Decree No. 48 for the year 2002 promulgating the Telecommunications Law, and Articles 2,3,4,5 and 6 of the Access Regulation issued on 30 April 2005 ("**Access Regulation**").
 - b. The Access Order 1 of 2009, issued on 14 September 2009 relating to the Local Loop Unbundling, Bitstream and Wholesale DSL pursuant to the Access Regulation.
 - c. The Dominance Determination 1 of 2009, a Dominance Determination in Wholesale Broadband Markets issued on 14 September 2009.
 - d. The legal basis and reasons set out in **Annex A** to this Order.

2. The Authority hereby orders Batelco the following:
 - a. To implement the Local Loop Unbundling ("**LLU**") and ancillary services terms and conditions as indicated in Annex B to this Order;
 - b. To apply the LLU and ancillary services charges as detailed in Annex A to this Order;
 - c. To launch LLU using manual processes compliant with Batelco's obligation to publish Key Performance Indicators ("**KPIs**");
 - d. To develop an automated IT solution once the requirements for such system have been identified by the industry and approved by the Authority.

Compliance

3. Batelco shall comply with the provisions of this Order. Failure to comply with the terms of this Order may constitute a material breach of the Telecommunications Law, Batelco's Licences, the Access Regulation, Access Order No 1 of 2009 and may consequently be subject to enforcement actions pursuant to the relevant articles of the Telecommunications Law.
4. The Annexes to this Order form an integral part of it.
5. The Authority will keep monitoring the performance of LLU and reserves the right to review and amend the service descriptions, including service levels and rebates, as deemed necessary, at a later stage throughout the commercial operation of the services. As a new service, it is likely that the LLU service descriptions will require amendment and adjustment to ensure that the service functions adequately. In the interest of expediency, there are also a number of elements identified by the Authority that have not been addressed in this Order but that the Authority intends to review.

Entry into force

6. This Order and related obligations are effective on the date of its issuance. In accordance with the implementation timetable set out in Access Order 1 of 2009 the commercial launch of LLU shall be no later than 14 days from Commercial launch of LLU. Given that the 14th day following this Order will fall on a weekend, for the avoidance of confusion, the Authority orders that the Commercial Launch shall be no later than the next working day, which is Sunday 22 May 2011.
7. This Order is without prejudice to any further orders, regulations and determinations that the Authority may consider necessary pursuant to its powers and duties under the Telecommunications Law.

Other obligations

8. The following obligations arising from Access Order 1 of 2009 that are relevant for this Order remain effective and form part of this Order:
 - (a) The implementation timetable, in accordance to paragraph 1.3 of Annex A to Access Order 1 of 2009.
 - (b) The Initial Collocation Process, In accordance with article 4.8 of Annex A of Access Order 1 of 2009.
 - (c) Publish the amended list of KPIs included in Annex. The quarterly report on KPIs should be published on Batelco's website no later than 5 working days from the end of the relevant calendar quarter. Batelco shall submit at the same time the underlying data used in the calculations of KPIs to the Authority. The list of KPIs has been amended in order to track Batelco's performance against the timelines set in each service description. This will also allow the Authority to refine the timelines based on empirical evidence. The Authority may amend those KPIs from time to time as deemed appropriate.

Signed on **05 May 2011**

Dr Mohammed Al Amer

Chairman of the Board of Directors
and Acting General Director
Telecommunications Regulatory Authority
Manama, Kingdom of Bahrain

Annex A

LEGAL BASIS AND REASONING

This final Order follows the same structure as the Draft Order issued on 1 November 2010(Ref: MCD/10/10/097). It includes the original text of the Draft Order with minor amendments. A summary of the points raised by Batelco is provided along with the Authority's analysis and conclusions. Sections 3 and 4 of this Annex cover other general comments raised by Batelco and specific points raised in Annex D of its submission.

SECTION 1: LEGAL BASIS AND REASONING FOR NON-PRICE TERMS

1. Following is the Telecommunications Regulatory Authority's ("**the Authority**") legal basis and reasoning for the non-price terms of the Local Loop Unbundling and Ancillary Services service descriptions.
2. Article 5.3 of the Access Regulation (*Regulation No. 1 of 2005*) states:

"Where the TRA determines that any of the terms and conditions or tariff contained in a Reference Access Offer that has been provided to it for approval are not fair, reasonable and non-discriminatory, it will issue an Order specifying the terms and conditions or tariffs it does not approve and shall state the terms and conditions that shall apply in a notice stating in writing the Order to be issued (the "draft Order") and the notice period for the responding to the draft Order, which shall not be less than one Month from the date of the notice. The TRA, taking into account the Licensed operator's response submitted in writing within a fixed period, shall issue a final Order, which shall include a warning to the Licensed operator that its license may be revoked pursuant to Section 35 of the Telecommunications Law if the Licensed operator fails to comply with the Order, as such a failure would be a material breach of its License."
3. Having reviewed the Unbundled Metallic Path ("**UMP**"); the Service Node Facilities Management Service ("**SNFM**"); the UMP Backhaul Service ("**UMPB**"); and the Specific Information ("**SI**") service descriptions (collectively referred to in this Order as the LLU Service Descriptions ("**LLU SDs**") submitted by Batelco to the Authority on 20 June 2010 pursuant to article 1.1 of the Implementation Process of Access Order 1 of 2009 issued on 14 September 2009 ("**LLU Access Order**") the Authority considers that certain provisions:
 - a. as submitted, are not fair, not reasonable and discriminatory. The reasons for which are set out below;
 - b. are not relevant to the LLU SDs. Consequently these are considered to be not fair, reasonable or non-discriminatory. Specific reasons for their exclusion from the LLU SDs are provided where necessary; and
 - c. have been omitted from the Batelco submission that should have been provided by Batelco in its LLU SDs. The Authority considers these omissions also to be not fair, reasonable or non-discriminatory and has consequently inserted specific provisions into the LLU SDs. The Authority has provided specific reasons for their inclusion.
4. Where the amendment is justified generally, self-evident, or where the amendment is for cosmetic, grammatical or drafting purposes only, the Authority does not consider that a specific justification is required.

5. A chronology of the review of the LLU SDs is included in Annex D of the Order.
6. All other aspects of the LLU SDs that the Authority has not ordered to be amended are approved as submitted.

Draft Order text related to “General Amendments to all LLU and ancillary service descriptions”

General Amendments to all LLU and ancillary service descriptions

7. The Authority considers that the following general amendments apply to all of the LLU SDs:

Replacement of “Access Seeker” and “Access Provider” with “OLO” and “Batelco”

8. The Authority considers that the continued use of the terms Access Seeker and Access Provider is unnecessary for the purposes of the Batelco Reference Offer (“RO”). It can lead to confusion and unnecessary complexity to the reading and comprehension of the documents. Furthermore, with the availability of clearer and more relevant terms, the Authority orders that the word “Batelco” replaces “Access Provider” and the word “OLO” replaces “Access Seeker”.

Charges Reference to be made to Schedule 3

9. The Authority considers that the duplication of service charges in both the Service Description and Schedule 3 of the RO is unnecessary and potentially confusing. Consequently, the Authority orders that all charges related to the services are moved to Schedule 3 of the Batelco R and reference to changes within the LLU SDs are replaced with the following text “for service charges please refer to Schedule 3 of this Reference Offer”.

Amendment to References to the “Supply Agreement”

10. The Authority orders, where it considers appropriate and necessary, the replacement of the term “Supply Agreement” with the reference to the relevant specific article(s) of the Supply Agreement (i.e. the specific schedule and article to which the relevant Service Description is pointing. See example in paragraph 6.1 of the UMP SD).

Summary of Batelco's response to "General Amendments to all LLU and ancillary service descriptions"

Replacement of "Access Seeker" and "Access Provider" with "OLO" and "Batelco"

11. Batelco is of the view that the term "Access Seeker" and "Access Provider" still has a role. Batelco argues that this drafting is intended to be used in future scenarios where another operator may have to provide access to its local loop.
12. Batelco also insists that reciprocity is an important regulatory concept to maintain in the service descriptions.

The Authority's analysis and conclusion for "General Amendments to all LLU and ancillary service descriptions"

Replacement of "Access Seeker" and "Access Provider" with "OLO" and "Batelco"

13. The Authority does not agree with Batelco's point in relation to future scenarios and reciprocity.
14. At present, only Batelco has been declared dominant in the relevant market. Should another operator be declared dominant in the future, its name should be included in its RO in the same way as Batelco's name has been included in Batelco's RO.
15. The Authority maintains its Draft Order position that it is appropriate and more intelligible to use the terms OLO and Batelco instead of Access Seeker and Access Provider.

Additional issues identified by the Authority

16. After reviewing Batelco's response and further analysis of the Batelco submission, the Authority has identified a number of issues, some of which have been addressed in this Order because they are important for LLU launch. In the interest of expediency, other issues have not been tackled and will be addressed in subsequent reviews.
17. Below are the issues which **have been addressed** by the Authority in the context of this Order:
 - a. It came to the Authority's notice that there was a mistake in the percentage figures for the Response Rebate Cap and Restoration Rebate Cap in the Draft Order which did not match the corresponding number of Service Credits (i.e. the 16% Cap did not match the 8 Service Credits which are equivalent to $5\% \times 8 = 40\%$). It appears that the Service Credit figure was correct. The

LLU Reference Offer Order

ANNEX A: LEGAL REASONING



Authority has corrected this mistake and reflected it accordingly in the new clean UMP SD.

- b. For the reasons set out in paragraphs 169 to 171 below, the Authority considers that OLOs should be allowed to place UMP Requests for a period of 6 months after the termination notice.
- c. The Authority considers that service rebates should be expressed as number of Service Credits rather than percentages of the applicable charge. This is a cosmetic change. The Authority points out one example of this change which has been implemented as a result of this Order in paragraph 185 below. The Authority has also amended the other SDs to reflect this change.
- d. The Authority has amended clause 3 of Annex 1 to the UMP SD for the reasons stated at paragraph 194 and paragraphs 208 to 210 below.
- e. The Authority has added the words “*that is not caused by Batelco*” to paragraph 4.5 of the SNFM SD. This amendment is the logical conclusion of the reasoning provided to Batelco in the relation to indemnities and insurances as indicated in paragraphs 250 to 253 below. To not make the addition at paragraph 4.5 of the SNFM SD would obviate the other amendments relating to these issues and therefore it must be made.
- f. With reference to paragraph 3 of Annex 1 to the SNFM SD, the Authority agrees, at present, that an OLO should not be entitled to sub-license rights. However sharing space can be a cost effective and practical solution where space is at premium. The Authority notes that the SNFM SD allows for comingling, the Authority considers that it is foreseeable that OLO’s may comeingle by sharing a floor or rack space and will be subject to the same security and insurance and indemnity provisions of the SD. This will protect Batelco’s equipment and personnel. The Authority also notes that the OLOs and Batelco successfully allowed and used rack sharing option during the Field Tests. Therefore the word “share” should have been removed for the paragraph in the SD.
- g. The Authority has amended the table found under paragraph 3.3 (b) in the UMPB SD in accordance to paragraph 279 below.
- h. On 27 April 2011, Batelco sent an email to the Authority requesting the Authority to agree on a list of service nodes available for unbundling. The Authority has considered the specific circumstances raised in the request and has amended paragraph 3.8 to the SNFM SD accordingly.
- i. Batelco also raised in its email to the Authority on 27 April 2011 security concerns regarding access to the service nodes. At this point in time, Batelco has not informed the Authority of any changes to its security procedures it may have implemented. Should any changes be made by Batelco to its process then the Authority may consider and review the security process applicable to OLO People requesting site access if raised by Batelco. In

considering and reviewing the security process, the Authority will be guided by the principle of non-discrimination.

18. Below are the issues which the Authority has decided **not to change** the SDs, but to flag it for later review as necessary:

- a. The Authority considers it fair and reasonable that Batelco should be able to reject a UMP Request where the OLO has no SNFM service. This was reflected by amending the following at paragraph 1.4 (f) of Annex 1 to the UMP SD:

“(f) was made at a BSN where the OLO has no SNFM service.”
- b. The Authority considers that clause 3 of Annex 3 of the SNFM SD related to security requirements may need to be reviewed at a later stage. The Authority will monitor closely LLU as this clause could give rise to abuses.
- c. In relation to the UMPB SD, the Authority notes that Batelco has limited the connectivity of the End User Premises to *“physical location in Bahrain owned or controlled by a person or organisation who is neither a licensee, nor affiliated to or controlled by a licensee”*. The Authority considers this to be unnecessarily restrictive as it does not allow OLOs to sell services to other OLOs. Further, it would prevent an operator to use LLU to connect its branches, base stations or even data centres around the Kingdom of Bahrain without any valid reasons.
- d. KPIs for notification and responses should be reviewed and monitored continuously to ensure that wholesale services can be delivered in similar timelines as achieved by Batelco for its retail customers. The Authority has already identified cases, such as the example detailed in paragraphs 211 and 212 below where it has concerns with regards to the delivery notification timelines for the UMP service. The Authority will require full justification from Batelco in the next review of the LLU KPIs and SDs.
- e. In Clause 2 of the SNFM SD, the Authority fails to understand why Batelco has referred to clause 11.11 of the Supply Terms in the definition of *“Implementation Date”*. The Authority does not understand the relation between a time table for development and implementation of New Services and the implementation date of SNFM. Therefore, the Authority will require a full justification from Batelco in its next review of the LLU SDs.
- f. In paragraph 3.5 of the SNFM SD, the Authority does not consider there is a direct relation between the SNFM service and the OLO’s End Users. The Authority is in particular concerned with the last sentence of the paragraph stating *“The OLO will also inform each existing End User that the SNFM Service will terminate at the end of the 12 month period”*. the Authority is minded that this sentence is removed and will be seeking Batelco’s justification if it is required for the service.

- g. Paragraph 8 of the Annex 1 to the SNFM SD which relates to notice period may require amendment for the reasons set in paragraph 233 below.
- h. Clause 3 of Annex 3 of the SNFM SD related to security requirements will be reviewed as it may give rise to abuses by Batelco. Hence, the Authority will monitor this point closely.
- i. The Authority notes that the process for the acceptance of a UMPB service as stated in clause 3.4 of the UMPB SD does not necessarily give OLOs an opportunity to test and confirm that the criteria and test methodology is accepted by both parties. For example, while Batelco may be essentially concerned that a UMPB service is connected, it would be essential for the OLO that the UMPB service delivers the promised and expected industry standard and level of service.. The Authority disagrees with the text proposed by Batelco and will require Batelco to provide further clarification for the subsequent review of LLU.
- j. The Authority considers that the UMPB Service Credit and Rebate levels are too low for a service of this importance. Although the Authority has not amended the service levels of the UMPB service at this stage, it intends to do so in the next review. In the meantime the Authority will monitor the situation.
- k. The Authority considers that the UMPB Service Credit is too low. The Authority is of the view that this should be changed to match the Service Credits in other SD (e.g. Service Credit is 5% in the UMP SD). Rebates and rebate caps should also be modified accordingly. In the interest of the expedient launch of LLU, the Authority has decided not to amend such figures at this point in time but will review it in its next review of KPIs.

Draft Order text related to “UMP Service Description (UMP SD)”

UMP Service Description (UMP SD)

19. With respect to the UMP SD submitted by Batelco on 20 June 2010, the Authority orders, with supporting justification, the following amendments :

General Amendments to the UMP SD

Definitions

20. Batelco lists the following definitions in the UMP SD:
 - a. Licensed Shelter Area;
 - b. Licensed Floor Area; and

c. Total Service Credit Cap.

21. As these terms are not used in the UMP SD, the Authority orders that these definitions be removed.

The Service – Clause 1

22. Batelco states under the title “Service” that the UMP service is reciprocal and submits that “a UMP service must be offered by any operator capable of directly accessing its customers via a metallic path”.
23. The obligation to provide LLU is derived from the Telecommunications Law and has been ordered in Access Order 1 of 2009 to remedy a market failure due to an enduring bottleneck in the wholesale market for broadband. Since Batelco is the only licensed operator determined to be dominant in that market the obligation to provide LLU is only applicable to it.
24. Consequently, as Batelco is the only licensed operator designated dominant in the relevant market and since the power to impose an obligation to provide LLU rests solely with the Authority, the Authority orders the removal of all reference to LLU being a reciprocal service from the LLU SDs.

Definitions – Clause 2

End user consent

25. The Authority notes that End User Consent, included in Batelco’s submission on 20 June 2010, is necessary to ensure that OLOs are not sending UMP requests without having the agreement of the End User.
26. However, having considered European experience, where LLU is successful, whilst the Authority concurs with Batelco that End User Consent is an essential step, the Authority considers it unnecessary for OLOs to be required to submit it as part of the UMP request. Should Batelco have concerns regarding a UMP request it shall be entitled to request a copy from the requesting OLO, though such a request shall not interfere with the provisioning of the requested UMP. Furthermore it is not expected that such requests from Batelco will become the norm.
27. End User consent shall take the form of a contract for acquiring services from the OLO by the End User.

Krone block

28. Batelco specifies in its submission dated 20 June 2010, that it will provide Krone blocks of 600 pair units either on the HDF or on the MDF.
29. The Authority notes that Batelco had offered 100 pairs Krone blocks during the LLU field test.

30. The Authority observes that in European countries where LLU is successful (e.g. in France, Luxembourg, Malta, Ireland, UK) tie cables have 100 or 128 pairs. The Authority also observes that Krone blocks are also offered in the same size (i.e. 100 or 128 blocks).
31. The Authority considers that Batelco's proposal to provide 600 pair blocks is technically unnecessary and creates a potential barrier to entry. The Authority does not consider it fair or reasonable for 600 pair block size to be used. Therefore to avoid the imposition of unnecessary technical requirements and to mitigate the potential barrier to entry such a requirement may create, the Authority orders that blocks should be provided in units of 100 pairs.

Line Continuity Tests

32. Batelco specifies in its response to the Authority dated 19 May 2010 (Reference GCL/236/10) that Line Continuity Tests ("**LCT**") is carried out for all lines, including active lines, between the HDF and the DP.
33. The charge for LCT is covered in the Connection Charge. Batelco has stated that OLOs will only pay for an additional LCT if they request one.
34. Batelco submitted in its letter dated 24 June 2010 (Reference GCL/247/10) that LCT will happen for all lines after installation as part of the handover between the OLO's HDF and the DP (except for distant collocation). This is consistent with Batelco's "*ADSL 2+ Provisioning and Upgrade Procedure*" which states that as soon as there is a modification with the jumpering a test is carried out.
35. As Batelco's retail lines are pre-connected (active lines) and End User services can be activated quickly, the Authority observes that in accordance with Batelco's submission, OLOs will require days for the equivalent service to be provided because of the jumpering process and LCT. The Authority considers, and in order to reduce any discriminatory effects, that LCT should be carried out as follows and has amended the definition of Line Continuity to reflect this:
 - a. **For active lines:** between the HDF and the line side of the MDF.
 - b. **For non-active lines:** between the HDF and the relevant street cabinet and between the street cabinet and the Network Boundary.

Service Terms – Clause 3

36. At paragraph 3.7 of the UMP SD Batelco states

"Where Batelco has reasonable objective grounds to consider that the Access Seeker is in breach of an obligation under paragraph 3.4, Batelco may:

LLU Reference Offer Order

ANNEX A: LEGAL REASONING



- a. *suspend implementation by the OLO of the UMP Service and/or*
 - b. *take any other step contemplated by the Supply Terms to protect Batelco's network or other interests."*
37. In order to prevent any disproportionate and arbitrary application of Batelco's remedies under the Supply Terms, the Authority considers that before any such suspension or other steps can be taken Batelco must first notify in writing the Authority of the reasonable objective grounds and prior to taking any action against the OLO obtain the Authority's written approval to suspend or take any other action under the Supply Terms.
38. The Authority orders the amendment of the paragraph with the text "*after providing written notification to the Authority and obtaining the Authority's written approval*".
39. Batelco specified in its submission dated 22 April 2010 that for each UMP Service or UMP Swap Request there shall be for a minimum contract period of 12 months from the activation date. Batelco considers a twelve-month minimum UMP rental period as fair and reasonable for the following reasons:
 - a. In relation to past regulatory treatment of access pricing and non-network costs, in particular where costs have either been removed or not recovered because of low uptake, it is important from a wholesale business perspective that Batelco is at least able to secure a revenue stream for 12 months from the UMP rental in terms of cost recovery (a maximum of approximately BD 72 per UMPL on the basis of the charge proposed by Batelco);
 - b. Twelve-month minimum period for other wholesale products using the copper (leased lines) have been approved or ordered as fair and reasonable by the Authority;
 - c. In relation to Batelco retail, the copper lines are generally in place for a longer period than 12 months because of Batelco's universal service obligation to provide basic telephony under the Telecommunications Law. Wholesale customers will not have this obligation unlike retail customers; and
 - d. The LLU order removes other investment safeguards previously permitted by the Authority, such as forecasts and minimum order thresholds.
40. The Authority considers that the point raised in paragraph 39(a) is not a relevant argument to set a minimum contract period of 12 months.
41. The Authority considers the argument in paragraph 39(b), which specifies that a 12 month minimum rental period shall be required for the UMP service because such practice has already been approved for other wholesale products, is not a compelling reason to impose such a minimum rental period for this product. The Authority also notes that none of the benchmarked countries (France, Ireland, Malta and Luxembourg) includes a minimum rental period for the UMP service.



ANNEX A: LEGAL REASONING

42. With respect to the argument postulated by Batelco regarding universal service obligations, the Authority notes that Batelco has not been determined under the Telecommunications Law to provide universal services. The Authority therefore considers the argument in paragraph 39(c) irrelevant. The Authority also fails to understand the reference to “*retail customers*” having a USO (unless Batelco is referring to its retail arm). As such this is not a consideration that the Authority is required to take into account.
43. With respect to the argument presented in paragraph 39(d), Batelco is already recovering its investment costs through other charges, such as the monthly rental. Therefore, this argument is not relevant.
44. Given that Batelco is recovering implementation specific costs the Authority considers the rationale provided by Batelco to include a minimum contract term of 12 months to be unfounded. Furthermore the proposed 12 month minimum rental period is not in accordance with international benchmarks.
45. The Authority considers that as a consequence of carried liabilities a 12 month minimum rental creates a potential barrier to entry that would unduly constrain OLOs in the same way as the Authority considers that the so called “*investment safeguards*” do (i.e. binding forecasts and minimum order threshold).
46. The underlying principle of term contracts is normally applied to ensure recovery of non-variable costs. However, since the non-variable costs are recovered through the proposed installation charges, and Batelco is able to mitigate any potential losses arising through LLU service cancellation by re-using the local loop in the re-provisioning of services to that End User, the Authority considers that Batelco presents no justification to support a 12 month term contract.
47. For these reasons the Authority does not consider that a 12 month minimum rental period is fair, reasonable or non-discriminatory. The Authority therefore orders that the minimum rental period be changed to a minimum period of one month from the activation date of the UMP Service in the LLU SD, to be in line with benchmarked countries where no minimum rental period applies (France, Ireland, Malta and Luxembourg).
48. In relation to Batelco's proposed termination notice period in the event that the Authority removes the regulatory obligation to provide LLU at some time in the future the Authority considers that the time line proposed by Batelco for the notice of termination (3 months) is too short.
49. The Authority is of the view that LLU requires a fundamental change in the way the OLO would be conducting its business. Therefore this time line should be extended.
50. Furthermore, considering benchmarked countries, where such information is available, the Authority observes that in France the termination notice is set at 12 months.
51. The Authority therefore orders the notice timeline for termination, in case a regulatory requirement for LLU no longer exists, to be changed to 12 months.

End User Access – Clause 4

52. In accordance with Article 2.5 in Annex A of Access Order No. 1 of 2009, the Authority considers that the refusal of a UMP Request, especially for non-active lines, shall be provided to the OLO in writing, providing objective reasons (Paragraph 2.5 of Access Order 1 of 2009).
53. The Authority therefore orders the amendments to paragraph 4.1(b) and the insertion of the text *“Batelco will provide objective reasons justified in writing to OLOs at the time of Batelco’s refusal.”*
54. In Paragraph 4.3 of the UMP SD Batelco states:

“In respect of each UMP Service, the Access Seeker releases Batelco from all liabilities to the End User of the Access Seeker, and indemnifies Batelco [...] arising out of the following:

 - a. *disruption of services;*
 - b. *suspension or cancellation of the UMP Service;*
 - c. *termination in accordance with clause 14 of Schedule 9 of the Supply Terms;*
 - d. *[an event] in relation to any matter set out in paragraph 4.3.”*
55. The Authority considers that this paragraph is one sided and unnecessary. The Authority does not consider it fair or reasonable that the Access Seeker releases and indemnifies Batelco only. It is also unnecessary as the Supply Terms of Batelco’s RO already provides an adequate indemnity provision. The Authority therefore orders the deletion of this paragraph from the relevant service descriptions.

Connection – Clause 7

56. In its submission dated 20 June 2010, Batelco specified the following service levels for validation and delivery for the connection of the UMPL and the provisioning of tie cables in the table under paragraph 7.1 (a):

<p>UMPL</p> <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p style="text-align: center;"><i>VALIDATION TIME</i> ➤ <i>DELIVERY TIME</i></p> <p style="text-align: center;">5 working days 10 working days</p> </div>
<p>Tie Cables</p> <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p style="text-align: center;"><i>VALIDATION TIME</i> ➤ <i>DELIVERY TIME</i></p> <p style="text-align: center;">5 working days 20 working days</p> </div>

Figure 1: UMPL and Tie Cables Validation and Delivery Times

ANNEX A: LEGAL REASONING

- 57. In regards to the validation time for both services, Batelco indicates that due to forecasting not being a requirement on OLOs, resource management to meet 2 working days would not be possible as Batelco Wholesale has other KPIs to meet on other products¹. According to Batelco, the only way to reduce the validation time from 5 days to 3 days would be that the Authority agrees to the recovery of the cost of additional staff dedicated to LLU.
- 58. The Authority concludes that validation time for both services remain at 5 days subject to a review after 6 months on the basis of KPIs (retail and wholesale) produced by Batelco in order to reach a fair and reasonable total lead time compared to countries where LLU has been successful.
- 59. In regards to the UMP Service Delivery time (including the validation time), the Authority observes that in comparison to other countries where full unbundling is successful, especially in France and the UK, Batelco’s proposed Service Levels are respectively 8 and 5 working days above the Service Levels in these countries.

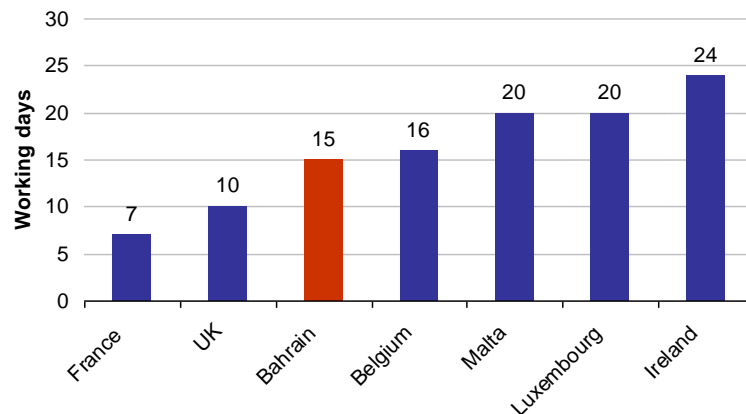


Chart 1: Service Levels related to the UMP service validation + delivery times (Source: Access Provider ROs)

- 60. Whilst the Authority accepts as an initial Delivery time (including the validation time) of 15 days as proposed by Batelco, this will be subject to a review after 6 months on the basis of KPIs (retail and wholesale) produced by Batelco in order to reach a fair and reasonable total lead time compared to countries where LLU has been successful.
- 61. The Authority considers that the service rebates defined by Batelco in paragraph 7.1 (b) of the UMP SD are very low compared to benchmarked countries. Where Batelco has set a service rebate at 5% of the rental charge per additional working day late, France Telecom sets it at 10% and other countries at more than 100% per additional working day (see table below).

¹ Batelco’s response to the Authority’s questions in email sent by Batelco on 17 May 2010.

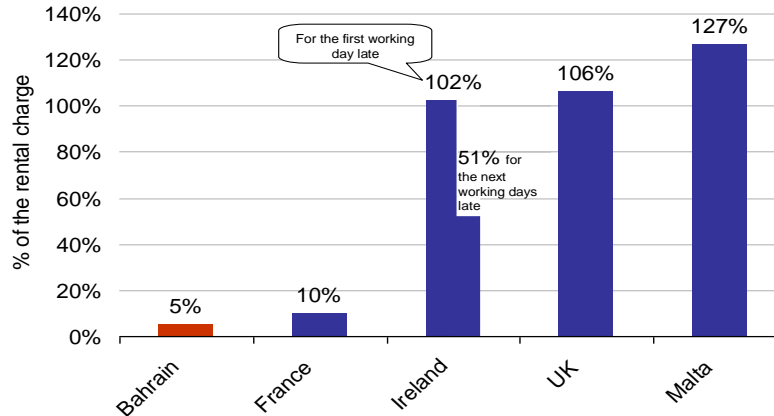


Chart 2: Service Rebates related to the UMP service delivery for the first late working day
(Source: Access Provider ROs)

62. Taking into consideration the above, the Authority does not consider that Batelco's proposed service rebates are fair and reasonable. The Authority also notes that taking an average of the rebates, the rebate level for Service Delivery would be set at 86%.
63. The Authority considers it fair and reasonable, for the initial implementation of LLU, that the UMPL Validation Rebate and UMPL Delivery Rebate be raised to 50% of the rental charge per additional working day. The Authority therefore orders this amendment.
64. Taking into consideration the relation between Rebate and the Rebate caps proposed by Batelco in its submission, the Authority considers the same levels are to be implemented. In order to make the level of the UMPL Delivery Rebate Cap and UMPL Validation Rebate Cap consistent with the amended UMPL Delivery Rebate and UMPL Validation Rebate, the Authority orders both the UMPL Delivery Rebate Cap and UMPL Validation Rebate Cap to be set at 200% instead of 20%².
65. For the same reasons as for the UMPL Validation and Delivery Rebates, the Blocks and Tie Cables Validation and Delivery Rebates have also been amended to the same levels (i.e. 50% instead of 5% for Blocks and Tie Cables Validation and Delivery Rebates and 200% instead of 20% for the Blocks and Tie Cables Validation and Delivery Rebate Caps).
66. The Authority notes that Batelco has proposed to apply the same rebates for UMPL and blocks and tie cables.

² In the Batelco submission the rebate was 5% and the cap was 20%, which means the cap was 4 times the rebate itself. As the Authority has amended the rebate to 50%, using the same ratio, this makes the new cap at 200%.

67. Considering the changes applied to the UMPL Validation and Delivery Rebates the Authority orders the Block and Tie Cable Validation and Delivery Rebate to be set at 50% of the HDF Block rental charge instead of 5%³.
68. Furthermore and in order to make the Blocks and Tie Cables Validation Rebate Cap and Blocks and Tie Cables Delivery Rebate Cap consistent with the amended Blocks and Tie Cables Validation and Delivery Rebates, the Authority orders the caps to be set at 200% of the HDF Block rental charge.
69. The table below summarizes the figures proposed by Batelco and those ordered by the Authority:

	Batelco Proposed	Authority Ordered
UMPL Validation Rebate	5%	50%
UMPL Delivery Rebate	5%	50%
UMPL Validation Rebate Cap	20%	200%
UMPL Delivery Rebate Cap	20%	200%
HDF & Block Validation Rebate	5%	50%
HDF and Block Delivery Rebate	5%	50%
HDF and Block Validation Rebate Cap	20%	200%
HDF and Block Delivery Rebate Cap	20%	200%

Table 1: A comparison between Batelco's proposed figures and the Authority Ordered figures for rebates and rebate caps

70. In its review of paragraph 7.2 of the UMP SD, the Authority concludes that Batelco's proposed threshold restoration time of 5 working days is clearly higher than what is usually offered in countries where LLU has been successfully implemented. The Authority notes that on average the LLU fault response and repair time is 2 working days.

³ From a technical point of view, tie cables and UMP are both made of copper cables and are treated at the same time when there is a fault and are of same nature. As a consequence, it is reasonable to use same rebates and same caps as for the UMP service.

ANNEX A: LEGAL REASONING

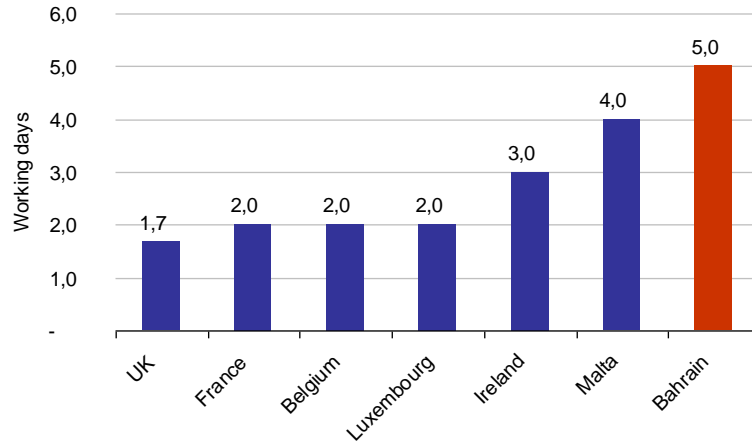
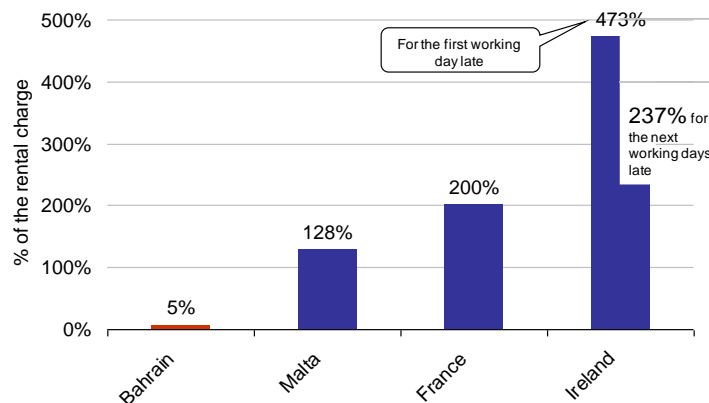


Chart 3: Service Levels related to fault response and repair time (Source: Access Provider ROs)

71. The Authority also notes, from the monthly KPI submission by Batelco⁴, that Batelco restores its own retail telephone line services within around [X] days as measured over the five latest quarterly periods and between [X] and [X] days for its ADSL services.
72. Notwithstanding the above, the Authority concludes that the Response time and Restoration time remains as proposed by Batelco and subject to a review after 6 months on the basis of KPIs (retail and wholesale) produced by Batelco in order to reach a fair and reasonable Response time and Restoration time compared to countries where LLU has been successful.
73. The Authority considers Batelco’s proposed rebates for faults and repairs are considerably low compared to other countries.



⁴ Average calculation has been conducted based on the figures received from Batelco in the monthly submission of Quality of Service indicators as pursuant to the Quality of Service Regulation published by the Authority on 10 September 2008.

ANNEX A: LEGAL REASONING

Chart 4: Rebates for fault response and repair time for the first late working day (Source: Access Provider ROs)

74. Taking into consideration that Batelco's Service Levels related to Fault and Response Repair times are not as demanding as other benchmarked countries, and in order to provide appropriate incentive for the prompt repair of faults, The Authority considers that it is not fair and reasonable for Batelco to be subject to such extremely low rebates.
75. Taking into consideration the benchmarked countries the Authority considers it fair and reasonable to set the service rebate at 200% (equivalent to 40 Service Credits as each Service Credit represent 5% of the UMP rental) of the UMP rental charge per additional late working day. The Authority considers this fair and reasonable as, in light of the benchmarked countries, this is not considered to be at the high end of rebate figures.
76. The Authority therefore orders the amendment to Service Rebates in clause 7(d) of the UMP SD as indicated in the SD attached in Annex C.
77. The Authority considers it fair and reasonable to add caps for rebates paid for Response and Restoration and has amended the SDs accordingly. In setting caps, the Authority has adopted the same ratios between cap and rebate for the UMP Connection service.
78. The Authority considers that having a single Service Level for fault repair does not enable OLOs to fulfil the needs of business customers who may require rapid repair of lines.
79. The Authority observes that in France⁵ and the UK⁶, where LLU is successful, there are two levels of repair in addition to the standard level of repair for LLU. The Authority also notes that the same case applies in Belgium but prices and conditions are not published.
80. The following table compares the prices in relation to repair times:

	France telecom		Openreach	
	€	% comp. to standard	£	% comp. to standard
Standard offer price	9,00		7,54	
Premium offer - 12h to repair			10,64	41%
Premium offer - 10h to repair	14,95	66%		
Premium offer - 6h to repair			11,54	53%
Premium offer - 4h to repair	17,00	89%		

Average repair time for premium offers	8
Average monthly rental charge in % of the standard monthly rental charge	160%

Table 2: Premium repair time comparison between FT and Openreach (Source: FT RO and Openreach website)

⁵ See France Telecom Reference Offer website.

⁶ See Openreach website.

81. For the initial implementation of LLU, and based on the review of practices in France and the UK, as indicated in the table above, the Authority orders the addition of at least one medium Service Level for shorter fault repair time. The Authority has taken the average of the repair time available in the benchmark and concluded that the additional medium Service Level will require Batelco to repair faults within 8 hours. For that, and again taking an average of the benchmarked figures in the table above, OLOs will pay a monthly rental charge which is 60% higher than the standard monthly rental charge applicable for LLU.
82. The Authority orders Batelco to add this to the list of charges indicated in the Service Description under “*Premium Fault Repair Time Charges*”.
83. As the restoration time set by Batelco at 5 working days represents a maximum and as the average restoration time observed is much lower than this maximum, the Authority orders that the monthly KPIs produced by Batelco (wholesale and retail) shall include:
- a. the average UMPL validation time;
 - b. the average UMPL validation time of the 20% longest UMPL validation time
 - c. the average UMPL provisioning time for active lines;
 - d. the average UMPL provisioning time of the 20% longest UMPL provisioning time for active lines;
 - e. the average UMPL provisioning time for non-active lines;
 - f. the average UMPL provisioning time of the 20% longest UMPL provisioning time for non-active lines;
 - g. the average UMPL provisioning time for all lines;
 - h. the average UMPL provisioning time of the 20% longest UMPL provisioning time for all lines;
 - i. the average restoration time; and
 - j. the average restoration time of the 20% longest restoration times.
84. Based on Batelco’s submission, the Authority shall review all KPIs and time lines proposed in the Service Descriptions, as necessary and required, after 6 months from the date of the first UMP Service activation in order to reach fair and reasonable KPIs.
85. Furthermore, the Authority considers it is fair and reasonable to assign caps to fault related rebates. The Authority uses the same ratios as adopted for the calculation of the UMP Service Rebates. The Authority therefore orders to amendment of “*Response Rebate Cap*” and “*Restoration Rebate Cap*” as defined in the clause 2 (Definitions) of the UMP Service Description.

Forecasting – Clause 8

86. Paragraph 8.2 of the UMP SD stated that “*The Access Seeker acknowledges that Batelco is not liable for not delivering any additional UMP Requests which have not been forecasted in the form specified under paragraph 7.1.*”
87. The Authority does not consider that forecasting is required for the delivery of a UMP service. Although Batelco personnel will need to be deployed to a particular location at a particular time for the UMP to be delivered to the HDF, the Authority does not consider, given the time available in the UMP SD for delivery (10 working days), that forecasting is a necessary requirement for the provisioning of the UMP Service.
88. The Authority is concerned that an unnecessary forecasting requirement may be unduly restrictive and bureaucratic. It may also be liable to abuse, for example, by providing Batelco with a reason to delay delivery where UMP delivery requests exceed forecasts. For these reasons the Authority considers that this paragraph is therefore unnecessary to the functioning of LLU and therefore neither fair nor reasonable and therefore the Authority orders that this provision be removed.

Priority Policy – Clause 9

89. Given a clear and reasonable implementation timetable for the UMP Service has been established (i.e. clear lead times and definitive delivery expectations such as the UMP Service Component table found under clause 7.1 of the UMP Service Description), the Authority is of the view that a priority or queuing policy is not required. Therefore the Authority orders the removal of the priority policy from the UMP SD.

UMP Transfer – Clause 10

90. Batelco stated in paragraph 10.6 of the UMP SD, with respect to support and maintenance, that on request by the OLO, it will provide technical End User support including fault management and support and maintenance. From a process perspective, Batelco requires the OLO to have ensured, prior to the request for support from the OLO that the fault is not within its control and details of test results performed.
91. The Authority notes that initial tests carried out by the OLO may simply be to verify the transmission of signals. As such the OLO may not necessarily have complex test equipment in place. Therefore, OLOs may not have any test results to provide to Batelco. Where Batelco reasonably considers that a fault cannot be resolved unless the OLO carries out certain tests then Batelco should request the OLO to carry out such test within its network boundaries and provide the test results to Batelco.
92. The Authority considers that it is fair that an OLO provides test results to Batelco, where available, on a request basis only.

93. Furthermore, as support and maintenance costs are paid by the OLO under the UMP Rental Charge. The Authority orders the amendments to paragraph 10.6 to reflect this.
94. Also in paragraph 10.6 of the UMP Service Description, Batelco states:
- “However, if requested by the Access Seeker only, Batelco will provide technical support in relation to problems End Users may report with services supplied to End Users using the UMP Service, including fault management, and support and maintenance for which the Access Seeker must pay the Charges set out in Annex 3.”*
95. The Authority considers that this wording applies to services which are provided and managed by Batelco. The provision of LLU (in particular UMP) is not one such managed service. The UMP SD describes a product whereby the UMP is delivered to the OLOs HDF only, and does not relate to the provision of Telecommunications Services delivered by the OLO over the UMP. Therefore the Authority orders Batelco to remove the abovementioned paragraph from clause 10.6 of the UMP Service Description.
96. Paragraph 10.7 of the UMP SD, Batelco states:
- “The Access Seeker will contact Batelco for all maintenance or repair of the UMP Service and the network on the Access Provider’s side of the Network Boundary and will pay Batelco the Charges at the rate specified (or if not specified, on a time and materials basis) for all such work.”*
97. The Authority considers this provision is redundant with paragraph 4.5 “Maintenance” of the UMP SD. Since the costs associated with maintenance activities are already recovered through the UMP rental charge the Authority considers that this proposed charge is neither fair nor reasonable and orders this paragraph to be removed.
98. Furthermore, the Authority considers paragraph 10.10 of the UMP SD is not fair nor reasonable and discriminatory. Batelco’s proposed sequence assumes the burden of proof for compliance with the provisions of the UMP SD upon the OLO. The Authority considers that where Batelco suspects a breach of terms under which the UMP service is provided the onus of proof should in the first instance lie with Batelco. Batelco has adequate legal means and instruments to raise this breach with the OLO and shall provide in writing appropriate evidence of such breach to the OLO. The Authority therefore orders the removal of this paragraph from the LLU SD.

Batches – Clause 2 of Annex 1

99. Batelco specifies in its RO submission dated 29 April 2010 that “if the 5 working days period is accepted by the TRA, Batelco proposed to increase the one batch per OLO per day limit to two batches despite not increasing SMU staff levels”.

100. As there are approximately 200 working days per year in the Kingdom of Bahrain, then Batelco's proposal implies that an OLO could get at a maximum 10% market share after 10 years in case there is no churn.
101. The Authority orders that the maximum number of batches that Batelco shall be able to treat per day shall be initially 2 batches as proposed by Batelco. However, the number of batches shall be reviewed in the future depending on LLU developments.
102. The Authority also notes that Batelco specified in its submission, dated 20 June 2010, that batches shall be "*made up of no more than the forecast average number of orders per day (being the number of forecast UMP Requests for the relevant calendar month divided by the number of working days in that month)*".
103. The Authority considers the clause mentioned in paragraph 102 above is potentially abusive as it is unnecessarily introducing an additional constraint and barrier to entry for OLOs above the "*maximum number of batches sent per day*". The Authority considers that this clause is neither fair nor reasonable and therefore orders that this clause be removed from the UMP Service Description.

UMP Charges – Annex 3

104. In its submission, Batelco failed to justify the relevance of the following chargeable activities, found in Annex 3 of the UMP SD:
- MDF License Fee per tie cable;
 - Maintaining relationship fee; and
 - Tie cable cancellation charge/early fee.
105. For the "*MDF Licence Fee*" and the "*maintaining relationship fee*", Batelco has not provided any charge. Also, Batelco has not provided any justification or explanation for levying charges for these activities. Not have charging principals or cost information submitted, the Authority is of the view that these activities do not correspond to any cost incurred by Batelco and therefore should be removed.
106. With respect to the proposed charge for the "*tie cable cancellation charge/early fee*", the Authority observes that: the cost of installation has already been recovered through the "*Tie Cable Installation Charge*"; and the cost of removing the tie cable is recovered through the "*Tie Cable Cancellation Charge*". Consequently, the Authority finds no justification for this charge to be levied.
107. Since these charges are without justification and in some cases already recovered through other charges, the Authority does not consider these charges fair, reasonable or non-discriminatory. The Authority therefore orders that these charges be removed from the LLU SDs.

108. Batelco proposes to charge a Special Fault Investigation charge for instances when further investigation of faults is required. According to Batelco, this charge is on a time and material basis as specified in Schedule 3 of the RO.
109. The Authority considers that the absence of a definition for Wrongful Repair Charge may lead to uncertainty amongst OLOs and for Batelco.
110. The Authority considers that such chargeable activity provides appropriate incentives to OLOs to report to Batelco only when they are certain that the fault is not located within their own network.
111. As a consequence and for the purpose of this initial LLU SD, the Authority considers that a Wrongful Repair chargeable activity should be included and has included a definition for Wrongful Repair Charge to the UMP SD.
112. For infrastructure availability charges and based on the result of the Line Plant Query Manager (“LPQM”)⁷, Batelco has proposed a charging mechanism which depends on the result of the LPQM. The Authority considers this an unclear charge that cannot be anticipated by Batelco or the OLOs.
113. Batelco requires that where results from the LPQM differ from what is observed at the MDF, Batelco will provide an alternative pair after carrying out a survey. This survey will be charged to the OLO in addition to the connection charge.
114. The Authority does not consider it reasonable that the OLO should pay for the inaccuracy of the LPQM system used for non-active lines where there is no spare capacity at the MDF, as suggested by the UMP provisioning process proposed by Batelco.
115. The Authority notes that in Europe, access providers have chosen different ways to unbundle (or not to unbundle) non-active lines when there is no spare capacity at the MDF. In France, subject to maintaining spare capacity in the network, France Telecom can satisfy a request for access involving the creation of a new line. However there is no mention of the payment of a specific survey by the OLO⁸. In Malta, the incumbent details a specific price for new MPF in the case of limited network rearrangements when there is no spare capacity. It amounts to approximately BD 210.000⁹.
116. The Authority considers that the process submitted by Batelco in their submission on 20 June 2010 does not give any visibility to OLOs regarding the requirement to pay the connection charge of BD 41.350 or the connection plus survey charges BD 300.000 + BD 41.350 when they order a line. Indeed, OLOs cannot predict in advance whether infrastructure will be available or not and therefore whether they will pay BD 41.350 or BD 341.350.

⁷ LPQM is a system by which Batelco can identify the specifications and characteristics of the copper line.

⁸ Page 8 Offre d'accès à la boucle locale France Telecom found at :
http://www.orange.com/fr_FR/groupe/reseau/documentation/att00005989/Offrededgroupage_30juin2010.pdf

⁹ Page 2, Annex F of Maltacom Reference Unbundling Offer found at:
<http://www.mca.org.mt/infocentre/openarticle.asp?id=511&pref=2>

117. The Authority also considers it is necessary to have a clear process related to infrastructure availability for OLOs in order to prevent any additional and unexpected charges.
118. The Authority considers that the costs related to the creation of a new line are recorded in the regulatory accounts and are recovered through the UMP rental charge. Therefore, and as the UMP monthly rental includes the cost of new lines, it is fair and reasonable that OLOs are charged for only the connection in all cases and hence no survey charges apply.

Technical Features of the Metallic Path or Copper Local Loop – Amended Annex 4

119. In an email submission on 17 May 2010 (Reference GCL/203/10), Batelco states that “*We have provided this, but from a legal standpoint not incorporated it in the service description – it is meant to be for information purposes only and not a warranted or legally binding specification to apply to all of Batelco’s unbundled copper [..]*” of which it does not consider it is legally required to include the technical characteristics of the metallic path facility (for example, details of insulation resistance measurements, voltage measurements, loop resistance, capacitance unbalance, measured insertion loss etc...).
120. Article 4.1 of the Access Regulation clearly states that “*A Reference Access Offer must also contain all necessary information regarding technical specifications and network characteristics for Access Seekers to be able to effectively and efficiently acquire and use each Access service*”. Thus it is a legal requirement for Batelco to provide this information.
121. Furthermore, the Authority considers that the provision of this information will reduce the risk of any damage that may be caused to the copper pairs as a result of the OLO’s equipment and to allow the OLOs to better understand the technical specifications of the Batelco’s copper local loop.
122. For this reason the Authority orders that the information provided by Batelco in the email dated 22 April 2010 (Reference GCL/163/10) be amended as Annex 4 to the UMP SD.
123. The Authority accepts Batelco’s suggestion that all such information should be referred to as “*provided for information purpose only*” as indicated in the first paragraph of Annex 4.

Summary of Batelco's response to "UMP Service Description"

Definitions – Clause 2

End User consent

124. Batelco agrees with the Authority's amendment to End User consent requirement but states that "*the cross indemnity for third parties claims at clause 12.10 is amended from "warranties" to "obligations"*"¹⁰.

Krone Block

125. Batelco asserts that the Authority's reasoning to impose the size of 100 pairs Krone block is based on benchmarking but that the Authority has neither justified the choice of benchmarked countries nor provided references to benchmarked data.
126. Batelco also states that this change is new, having gone through the detailed assessment of the service descriptions. It also argues that the Authority did not provide details on how it computed the benchmark.

Line Continuity Tests

127. Batelco agrees with the Authority regarding the amendments on the line continuity test that shall be carried out all the way from HDF to DP for all lines.

Service Terms – Clause 3

128. Batelco disagrees with the Authority on the requirement of prior approval from the Authority for a suspension of a UMP service.
129. Batelco argues that the Authority has not provided any justification except for a reference to "*arbitrary*" suspensions. Batelco further points the Authority to its concern with regards to the risk Batelco faces in terms of enforcing security and minimizing the risk of not being paid. With the Authority's proposed steps, Batelco believes that it has greater exposure to that risk.
130. Batelco disagrees with the Authority in regards to the reduction of the minimum rental period from 12 months to one month for the following reasons:
- a. Batelco believes that wholesale customers can protect themselves by implementing 12 months minimum contracts at the retail level, such contracts being commonplace in the Kingdom of Bahrain;

¹⁰ Annex A of Batelco's Submission of 14 December 2010

ANNEX A: LEGAL REASONING

- b. Batelco indicates that two countries (Denmark and Sweden), propose a 12 month minimum contracts for LLU customers;
- c. As Bahrain is a relatively small market, it is important for Batelco to secure its investments and apply a 12-month minimum contract period. More generally, Batelco disagrees with the Authority's approach related to the recovery of LLU specific costs;
- d. Batelco considers the Authority's universal service argument is not relevant, as it is legally obliged to do so according to article 64 of the Telecommunications Law; and
- e. Batelco also believes that LLU will be used to provide leased line services, not broadband services, and a 12-month minimum period for leased lines has been deemed fair and reasonable by the Authority.

131. With regards to the termination notice requirements once a regulatory obligation is removed, Batelco disagreed with the Authority's decision that a 12 month notice is required.

132. Batelco further refers to the example of retail tariff regulation for mobile where the timeline between the removal of obligation and the implementation was just more than 7 months. Batelco also indicated that the Authority has proposed a 6 month notice for the removal of the obligation to provide WSDSL.

133. Batelco concludes that it "*sees the contractual lengthening to 12 months as unnecessary given the process lag, yet 3 months being a reasonable time for the wholesale*"¹¹.

End User Access – Clause 4

134. Batelco argues that the indemnity requirements for third parties "*is a standard and fair and reasonable contractual protection and limitation for a supplier to ask the (wholesale) customer to indemnify it from third party (customer or user) claims arising from the event specified in clause 4.3*". Batelco states that it does not agree with the Authority's view that this is one sided and unnecessary.

Connection – Clause 7

Delivery Times

135. Batelco observes that the benchmark exercise carried out by the Authority only demonstrates that advanced LLU countries such as France and the United Kingdom have lower delivery times.

136. Batelco indicates that it has carried out a benchmark in Europe which shows that the vast majority of countries do not specify a delivery time (10 out of 16) and that 4

¹¹ Annex A of Batelco's Submission of 14 December 2010

countries have a similar or higher delivery time and 5 countries have similar or higher validation time. Batelco indicates that rebates are quite variable from one country to another.

137. Batelco is very concerned with the setting of high service credits or rebate caps. Batelco considers that the increase of rebates proposed by the Authority is not justified because Batelco has sufficient incentives and because there exist other “*safeguards to ensure its performance in terms of the Authority’s enforcement powers and general contractual remedies under the supply terms*”.
138. Batelco proposes the following approach: “*if manual launch, no initial service credits, if automated, gradual approach to service level and service credit setting*”.

Restoration Times

139. Batelco indicates that it carried out a benchmark of 16 European countries which shows that restoration times are, in most cases, within 1-2 days but some countries have much longer repair times such as Malta (4 days). Batelco notes that the Authority excluded these unfavourable benchmarks.
140. Batelco also observes that rebate structures vary a lot between countries and that Luxembourg has no rebate and has been excluded from the Authority’s benchmark.
141. Finally, Batelco observes that 10 countries out of 16 provide additional repair SLAs.

Monthly KPIs

142. Batelco explains that committing itself to provide KPIs on a monthly basis will be very difficult due to resource constraints and manual launch.

Forecasting – Clause 8

143. Batelco disagrees with the Authority’s approach to remove the exclusion of liability for un-forecasted orders. Batelco is of the view that this measure is necessary to incentivise OLOs to forecast accurately in the absence of any upfront payments to Batelco. Batelco also recalls that forecasts are important from an operational perspective, especially with a manual launch of LLU.

UMP Transfer – Clause 10

144. Batelco indicates that OLOs should at least provide results of tests related to the attainable speed on the line or the services provided thereon.
145. Batelco agrees with the Authority’s revision and reasoning related to maintenance charges to be paid by the OLO in case of maintenance on the UMP up to the network boundary.

146. Batelco proposes, in relation to investigation for breach of warranty, that the Authority replaces paragraph 10.10 of the UMP SD with: “*on reasonable request to the OLO, Batelco will specify the clause or issue in breach and the OLO shall provide reasonable evidence that he is not in breach and in compliance with the SD*”.

Batches – Clause 2 of Annex 1

147. Batelco disagrees with the removal of the requirement that batches of orders sent by OLOs to Batelco should not exceed the forecast numbers of orders provided by OLOs. Batelco requests that the Authority considers introducing some discipline on OLOs and protection for Batelco as the non-binding forecasting system has already been removed.

UMP Charges – Clause Annex 3

148. Batelco disagrees with the Authority in respect to the removal of “*maintaining relationship fee*” and argues that, in the same way it has to be applied for the Bitstream service, this charge should cover all the monthly on-going support of the UMP service and field test implementation costs.

149. Batelco also disagrees with the Authority in removing “*survey charges*” and states that both Batelco’s retail activity and OLOs require the survey. Both on the retail side and on the wholesale side, when a line is ordered, it is not possible to know in advance whether this line is already deployed or not. As a consequence, Batelco is of the view that removing this charge is discriminatory against Batelco’s retail activities and is another example of entry assistance.

150. Batelco also points out that its fixed network records are “*patchy*” and that if LLU is launched manually, it would be even worse.

151. Batelco is of the view that the Authority’s analysis is not accurate, in relation to the reduction of tie cable joint and cease charge, as it did not consider the following: “*Team mobilisation, collection of material from stores, loading and offloading of cables/materials, cabling and jointing are done by two separate groups*”.

Technical Features of the Metallic Path or Copper Local Loop – Amended Annex 4

152. Batelco agrees with the Authority’s approach for amending the technical specifications to the Service Description but requests that the following statement be added “*The specification may also be varied by Batelco in its absolute discretion upon notification to the OLO*”.

The Authority's analysis and conclusion for "UMP Service Description"

Definitions – Clause 2

End User consent

153. With regards to the Indemnity clause amendment suggested by Batelco, the Authority refers Batelco to its response in paragraph 198 to 201 below.

Krone Block

154. The Authority disagrees with Batelco's comments made in paragraphs 125 and 126 above.

155. The Authority refers Batelco to all the references that have been provided to Batelco by email to Nadia Alawadhi from Adel Darwish on 01 December 2010 (Subject: "RE: LLU Draft Order - information request"). According to the benchmarked incumbent's ROs (France¹², Ireland¹³, UK¹⁴, Luxembourg¹⁵ and Malta¹⁶) the type of blocks proposed varies between 100 and 128 pairs.

156. As detailed at paragraph 29 above, during the field test, Batelco had offered to OLOs 100 pair Krone blocks.

157. Furthermore, during the meeting held with Batelco and the OLOs on 11 March 2010, OLOs suggested and preferred that Batelco provides blocks of 50 pairs instead of 100 pairs. Despite that, the Authority still considers the 100 pair is more reasonable and more in-line with international best practice.

158. For the reasons set out above, the Authority remains of the view that blocks should be provided in units of 100 pairs.

Service Terms – Clause 3

159. The Authority has provided its reasoning at paragraph 37 above. The Authority notes that the mechanism to prevent arbitrary suspensions already exists in Schedule 9 of Batelco's RO (the Supply Terms) with respect to interconnection products.

160. The Authority further considers that this mechanism should be applied to LLU, where the suspension may have a profound effect on not just the OLO but its End Users.

161. As such, the Authority maintains its position as per the Draft Order.

¹² 128 pairs Source: France Telecom, Offre d'accès à la boucle locale de France Télécom, page 44.

¹³ 128 pairs Source: Eircom, Access Reference Offer from Eircom Ltd, page 65.

¹⁴ 100 pairs Source: Openreach, LLU pricing Schedule 01 – Internal tie cable (Note 2).

¹⁵ 100 pairs Source: EP&T, Reference Unbundling Offer, page 29.

¹⁶ 100 pairs Source: Maltacom, Reference Unbundling Offer –Price list, page 6.

162. The Authority disagrees with Batelco's arguments and reasoning mentioned at paragraph 130 above in relation to the 12 months contractual period for the reasons mentioned below.
- a. The Authority considers that OLOs should be able to choose the contract periods they want to offer to their End Users. The Authority observes that examples of OLO providing packages without minimum contractual periods is available elsewhere and some examples can be found in France.
 - b. In relation to Batelco's argument that two countries (Denmark and Sweden) are proposing a 12-month minimum period for LLU, the Authority observes that this is not the case in most of the benchmarked countries (see paragraph 47 above). The Authority also observes that Batelco has not provided the sources enabling the Authority to verify the benchmark information referred to by Batelco.
 - c. With regards to investment safeguards, it is unclear to the Authority what investment safeguards Batelco is referring to. As explained in paragraphs 43 and 44, Batelco is already recovering relevant costs (see also Section 2 of this Annex A). The Authority therefore does not agree with Batelco's argument.
 - d. The Authority has explained its position with regards to USO at paragraph 42 above. The Authority does not find any relevance between what Batelco seems to be stating (with regards to it having a USO at the retail level) and the requirement to provide LLU (at the wholesale level). As such, the Authority considers Batelco's arguments regarding USO irrelevant.
 - e. The Authority disagrees with Batelco's view that LLU will not be used to provide broadband services¹⁷. As observed in other countries, LLU is preliminary used to offer broadband services and not leased lines. The Authority sees no reason to believe that this would be any different for the Kingdom of Bahrain. In any case, as explained in paragraph 41 above, the fact that the minimum period is 12 month for other wholesale products such as CAT/LLCO is not a compelling reason to impose the same minimum period for LLU. LLU is a passive component that is used as a base building block for numerous products and as such it is inappropriate to link contract terms to a specific product that LLU may support. Furthermore the Authority notes that Batelco does not impose minimum contract requirement for its broadband services.
163. The Authority therefore concludes that the minimum rental period of one month should remain for LLU.
164. In relation to the notice period for when a regulatory obligation to provide LLU no longer exists, the Authority has explained its rationale for the 12 month termination notice at

¹⁷ Source, Annex A of Batelco's Submission of 14 December 2010.

paragraphs 48 to 51 above. While Batelco's comments do not justify a change of position, the following is the Authority's extended explanation for its position.

165. LLU may require heavy investment from OLOs. Hence when a regulatory requirement no longer exists, OLOs will have to evaluate whether they intend to keep their infrastructure with Batelco or seek alternatives in order to sustain the services they provide to their End Users. The Authority is of the view that a 3 month notice is not sufficient.
166. If the OLO decides to build an alternative infrastructure and migrate its network, then, in such a case, even a 6 month notice will neither be sufficient nor fair to OLOs. The Authority therefore considers that in order to ensure service continuity and smooth migration for End Users, a 12 month period is the minimum reasonable.
167. The Authority considers that the proposed 3 month notice would make it difficult for Batelco to migrate End Users either between OLO's existing setup to OLOs alternative setup or between the OLO's existing setup and Batelco retail (where End Users wish to migrate back to Batelco).
168. The case of the relaxation of ex ante regulation for mobile is obviously irrelevant. It related to retail services and not to a wholesale obligation, whose removal has far reaching operational consequences. In case of the removal of ex ante regulation of mobile tariffs , neither OLOs nor Batelco were required to re-plan or re-invest in their networks. Furthermore, in the case of relaxation for WSDSL, as this is a resale service from Batelco, there is no requirement for OLOs to heavily plan their infrastructure and the 6 month notice period assumes that wholesale alternatives (e.g. Bitstream and LLU) higher in the investment ladder remained as viable alternatives.
169. Batelco argues that there is a "*procedural lag*" that should be taken into account when considering the termination rights that Batelco has with OLOs. It seems to be indicating that should the Authority hint on the removal of LLU obligations, that the clock for preparation by OLOs to notify their customer will start then. This is not appropriate as the "clock" can only start once the formal decision has been made and the OLOs are formally notified, after which the OLOs will require time to migrate customers in accordance with the options discussed above.
170. The Authority therefore remains of the view that the termination notice period should be 12 months at the minimum.
171. The Authority is of the view that OLOs should be able to place orders for UMPL for a further 6 months after Batelco's termination notice (i.e. for the first 6 months of Batelco's 12 month termination notice period) in order to allow OLOs to develop and implement migration plans with minimal adverse effect on their commercial strategy and targets. It would be inappropriate to prevent OLOs from selling new services without a proper notice period. OLOs will be responsible for managing their End User's expectations in relation to the remaining contractual periods. After the notice period, Batelco may continue to offer LLU subject to commercial agreement between the parties.

End User Access – Clause 4

172. The Authority has explained its rationale at paragraph 55 above. The Authority is of the view that there is a risk to both parties when an OLO places its equipment in an exchange. Batelco's original draft of the indemnity clause did not recognise or take this into consideration.
173. Furthermore, Schedule 9 of Batelco's RO (the Supply Terms), which forms the contract of supply of services between the parties, already includes an extensive indemnity and limitation of liability clause (see clause 17 of Schedule 9 in Batelco's RO) that recognises the issue of reciprocity.
174. As such the Authority's decision to remove this clause stands.
175. To maintain equivalent maintenance levels for wholesale customers as Batelco provides to itself, the Authority has amended paragraph 4.5 of the UMP SD as follows:

“Batelco will provide network maintenance and support services to ensure that the UMP Service is provided to the OLO at the same level of quality of service and availability as Batelco provides to itself.”

176. The Authority considers that the wording that Batelco has proposed did allow for discrimination. Hence the Authority considers the new wording to be more appropriate (i.e. non-discriminatory, fair and reasonable).

Blocks and Tie Cables – Clause 6

177. The Authority has some concerns with regards to the use of the phrase “all necessary consents” in the paragraph 6.3 of the UMP SD:

“Subject to Batelco obtaining all necessary consents and the OLO fulfilling all of its obligations under the Supply Terms in particular provisioning and installation of the relevant SNFM Service, Batelco will provide the OLO with the Blocks and Tie Cables as specified in the Order accepted by Batelco.”

178. This paragraph does not provide any clarity to the OLO as to the necessary consents required. As a consequence, this clause could be abused by Batelco to the detriment of OLOs. This clause will therefore be reviewed at a later stage and Batelco will be required to provide details of all such necessary consents at that review.

Connection – Clause 7

Delivery Times

179. The Authority would like to clarify that the purpose of using benchmarks was to assist in the establishment of appropriate penalties and rebates and it was not to set KPI values.

180. Because the delivery and validation times proposed by Batelco are largely out of step compared to European best practices, the Authority proposed to set appropriate penalties (in line with practices elsewhere) in order to provide adequate incentives for Batelco to honour delivery times. The Authority also emphasises that it did not use the highest penalties but rather average penalties from the benchmarked countries.
181. The Authority cannot rely on Batelco's benchmarks as they lack transparency. Batelco has neither justified nor provided the source of its benchmark and the countries included. The Authority also observes that the benchmark analysis carried out by Batelco seems to have been completed for the UMP service and not for tie cables, for which it appears that no analysis was carried out by Batelco.
182. The Authority does not agree with Batelco's proposed approach: "*if manual launch, no initial service credits, if automated, gradual approach to service level and service credit setting*". The Authority considers that it is imperative that there are service levels in place from day one of LLU in order to provide OLOs with the required certainty and Batelco with the required incentives to honour timelines. The absence of service levels at the wholesale level has been identified as a key impediment to access-based competition.
183. The Authority would also like to remind Batelco that it has not adjusted validation and delivery times and has approved the times proposed by Batelco at this point in time. The accepted delivery time of 10 days is more than sufficient having regards to the estimated time for installing a line (*maximum of 88 minutes according to paragraph 7 of Batelco's response*).
184. The Authority therefore maintains the level of delivery, validation and penalties proposed in the Draft RO Order for UMPL and tie cables services.
185. In order to provide more clarity and robustness to the text, the Authority is of the view that a common template should be used when referring to rebates. Rebates should be calculated on the basis of service credits and expressed as number of service credits, with the equivalent percentage of rental charge in parenthesis. The Authority has therefore amended the Rebate figures and the definitions of "*UMPL Validation Rebate Cap*" and "*Blocks and Tie Cables Validation Rebate Cap*" accordingly.

Restoration Times

186. The Authority has followed the same approach above for response and repair times and the corresponding rebates (*i.e. it only changed rebates/penalties associated with repair times and not the repair times*).
187. Batelco states that in the vast majority of countries it benchmarked, maximum repair time is between 1 to 2 days which is much lower than Batelco's proposed 5 days and the Authority's Draft Order times. Even the highest example quoted by Batelco (Malta) is lower than Batelco (*4 days versus 5 days*).



ANNEX A: LEGAL REASONING

188. Contrary to the claim made by Batelco, the Authority has not excluded Malta from the benchmark¹⁸ of restoration times. However, the Authority could not include Luxembourg from the benchmark for rebate/penalties because there are no rebates/penalties implemented in the Luxembourg LLU RO.
189. The Authority also notes that Batelco's benchmark shows that the vast majority of its benchmarked countries (10 out of 16) have implemented repair service levels. This supports the Authority's choice to impose repair service levels on Batelco.
190. The Authority therefore maintains the rebates and penalties set in the Draft Order.

Monthly KPIs

191. The Authority understands that Batelco may have difficulties providing monthly KPIs on monthly basis during the early stages of LLU.
192. The Authority therefore orders KPIs defined in Annex F to be measured on a monthly basis but published on Batelco's website on a quarterly basis. KPIs should be published no later than 5 working days from the end of the relevant calendar quarter. Batelco shall also submit at the same time the underlying data used in the calculations of KPIs to the Authority.
193. The list of KPIs has been amended in order to track Batelco's performance against the timelines set in each service description. This will also allow the Authority to refine timelines based on empirical evidence.

Forecasting – Clause 8

194. The Authority remains of the view that it is fair and reasonable to remove the clause where Batelco is excluding liability for unforecasted UMP line orders. In addition to the arguments made in the Draft Order, the Authority notes that the maximum expected volume of new orders per working day is limited to 2 batches per OLO (i.e. 20 orders). The Authority has further amended clause 3.2(b) of Annex 1 to reflect this, refer to paragraphs 208 to 210 below.

UMP Transfer – Clause 10

195. Regarding UMP transfer and results of tests to be provided by OLOs to Batelco, the Authority observes that Batelco is in broad agreement with the Authority. However, Batelco indicates that the OLO should provide Batelco with the attainable speed on the line or the services provided thereon.
196. While the Authority considers that OLOs should not have to provide the information on the type of services provided on a line for obvious commercial and confidentiality reasons, the Authority is of the view that OLOs should provide Batelco the attainable

¹⁸ See paragraph 63 of Draft reference offer order Reference: MCD/10/10/097

speed of the line, if available and requested by Batelco. The Authority has therefore amended the service description accordingly.

197. With respect to Batelco's proposed amendments to what was clause 10.10 of the UMP SD, the Authority appreciates that Batelco will point out the specific clause that the OLO is allegedly in breach of. However, Batelco should provide "*reasonable evidence*" to support that claim, to enable the OLO to respond and to provide reasonable evidence of its compliance.
198. With respect to Batelco's comment regarding End User Consent at paragraph 124 above, the Authority sees no link between the removal of the End User Consent requirement and the use of the words "*warranties*" and "*obligations*". The Authority was concerned that these words have a different legal effect, which was not explained to the Authority by Batelco in its response to the draft Order.
199. The Authority wrote to Batelco on 27 February 2011 (Reference MCD02/11/08) requesting a further explanation for this suggested change. Batelco replied on 2 March 2011 (Reference GCL/95/11) explaining that the change had been made to "*...even out the risk balance given that another indemnity against third party claims in Batelco's favour have been removed from the service description*". Batelco did not specifically cite the indemnity provision it is referring to but the Authority assumes this is the indemnity at clause 4.3 of the UMP SD from Batelco's submission on 20 June 2010, which the Authority removed in this Order for the reasons specified at paragraph 55 above. The Authority considers that Batelco failed to answer the Authority's queries on the legal effect of the word "*obligation*" as opposed to "*warranties*" in its response on 2 March 2011 referred to above. Furthermore the Authority considers Batelco's answer does not provide any further justification for the change from "*warranties*" to "*obligations*" nor does it adequately justify Batelco's concern with the Authority's deletion of Batelco's UMP SD clause 4.3.
200. To avoid any uncertainty with respect to relying upon words which Batelco cannot justify, the Authority considers that legal certainty can be achieved through simplification of the text.
201. Therefore, in relation to the indemnity clause suggested by Batelco at paragraph 124 above, the Authority orders the amendment of clause 9.11 of the UMP SD with the following text:
- "Each party indemnifies the other, subject to using all reasonable endeavours to mitigate against the effect of the occurrence of any loss, liability or cost incurred by a party (including third party claims or claims by any End User) caused by a breach of this Service Description"*
202. As this is applicable to all SDs, the Authority considers this text to be amended to the SNFM SD and the UMPB SD as follows: clause 9.3 of the SNFM SD; and clause 3.11 of the UMPB SD.

203. The Authority recognizes that there should be an expedient means for the parties to determine between themselves disputes on an efficient basis. For this reason and for the reasons stated in paragraph 199 above, the Authority orders the amendment of the UMP SD clause 9.10 with the following text:

"Where there is any allegation of a failure to comply with this Service Description then the parties will apply the dispute resolution process outlined in clause 24 of the Supply Terms."

204. Furthermore, as the above is an essential process in all of the SDs related to LLU, the Authority has made the same amendments to the: the SNFM SD at paragraph 10.1 (under a new title of 10 Disputes); the UMPB SD at paragraph 3.9 (d); and the UMP Specific Information SD at paragraph 3.4 (c).

Batches – Clause 2 of Annex 1

205. The Authority considers the justification it had provided in the Draft Order has already explained the reason for not linking order batches to forecasts.

206. Furthermore, the Authority notes: (a) that the maximum expected volume of new requests per working day is limited to 2 batches per OLO with each batch containing a maximum of 10 requests; (b) that this number has been accepted by the Authority as proposed by Batelco; and (c) that the Authority has not modified validation and delivery times proposed by Batelco, although they are clearly out of steps with best practice countries.

207. The Authority has already stated its position with regards to forecasts in paragraphs 87 and 88 above. Therefore the Authority's position in the Draft Order stands.

Completion of Request – Clause 3 of Annex 1

208. The Authority has removed paragraph 3.2 (b) of Annex 1 of the UMP SD as it considers that this adds unnecessary constraints to OLOs.

209. The Authority does not see any valid justification as to why the number of orders should be stopped or limited to the forecasts, as provided by paragraph 3.2 (b) of Annex 1 to the UMP SD submitted by Batelco, given that: (a) forecasts are non-binding; and (b) the limitation applicable to Batches (2 batches of 10 requests a day).

210. In light of the above and the Authority's consideration that it is fair and reasonable that OLOs are informed in writing, when a UMP Request is on hold, the Authority has accordingly amended paragraphs 3.3 and 3.4 of Annex 1 to the UMP SD as follows:

"3.3 For the avoidance of doubt, Batelco shall notify the OLO in writing once a UMP Request is on hold and shall resume the process as soon as the reason for putting on hold the request as per 3.2 above is satisfied accordingly and brought to Batelco's notice in writing by the OLO."

LLU Reference Offer Order

ANNEX A: LEGAL REASONING



- 3.4 *Any Service Levels and Service Credits shall not be considered during the period which the UMP Request is put on hold as a result of paragraph 3.2 above.*

Notification of Completion of Request – Clause 4 of Annex 1

211. The Authority is of the view that a notification should be provided to the OLO within the same day as the service is delivered contrary to the two working days proposed by Batelco. In order to have an efficient wholesale service, it is vital to the operation of the OLO to be aware when a service has been connected and it is important to reduce the out-of-service time for the End Users.
212. The Authority therefore flags this issue which will be considered and reviewed in the next review of service levels and LLU SDs.

UMP Charges – Annex 3

213. Regarding the “maintaining the relationship fee”, Batelco has not provided any charge, cost estimates and details supporting the inclusion of this chargeable activity. In those circumstances, the Authority remains of the view that this item should be removed from the list of chargeable activities.
214. With regards to LLU field test cost, as indicated in the Reference Offer Order of 25 January 2011, the Authority has concluded that LLU implementation cost should be recovery via the Interconnect Specific Charge (“ISC”)¹⁹. The Authority notes that despite having asked Batelco²⁰, Batelco has not provided any breakdown of the cost incurred in the field test.
215. The Authority also considers that keeping the survey charge would lead to cost being over recovered. It would therefore be unreasonable and unfair. The Authority notes, as indicated by Batelco in its response, that Batelco’s retail arm incurs the costs related to this survey for its own retail customers. This means that these technical charges are already included in Batelco’s accounts and as a consequence in the UMP monthly rental charge of BD 4.09. The Authority considers that keeping this charge would be discriminatory. Therefore the Authority maintains its Draft Order position.
216. With regards to the reduction of tie cable jointing and cease charge, Batelco has not provided sufficiently detailed arguments for proposing 2 working days instead of the 6 hours proposed by the Authority. Furthermore, the Authority has taken into consideration the full list of activities including those detailed by Batelco in its submission. In any case, the Authority considers that these activities alone cannot explain the difference between 2 working days and 6 hours. As a consequence, the

¹⁹ “An Order issued by the Telecommunications Regulatory Authority (“TRA”) on the Reference Interconnection Offer and Reference Access Offer of the Bahrain Telecommunications Company B.S.C (“Batelco”)” – Reference MCD/01/11/006.

²⁰ Email from Adel Darwish (the Authority) to Chris Evans (Batelco) on 26 August 2011.

Authority remains of the view that the reduction of tie cable jointing and cease charge is fair and reasonable.

Technical Features of the Metallic Path or Copper Local Loop – Amended Annex 4

217. Considering Batelco's Submission and as Batelco notes that providing notification to amend the metallic path specification is already covered by clause 8 of Batelco's RO (Supply Terms), the Authority orders the following amendment in Annex 4 of the UMP SD:

"The specification contained in this Annex 4 may be varied by Batelco in accordance with clause 8 of the Supply Terms".

Draft Order text related to "SNFM Service Description"

SNFM SERVICE DESCRIPTION

218. For the SNFM Service, the Authority orders the following amendments as per the reasons set out below:

General Amendments to the SNFM Service Description

Definition – Clause 2

219. The Authority observes that in Annex 3 "Summary Security requirements" of the SNFM SD, Batelco refers to "Contact Person" but no definition is provided.

220. As a consequence, the Authority orders the following definition to be inserted: "*Contact Person means Batelco's personnel who can be contacted any time by staff and contractors of the OLO who need to enter the SNFM space. Batelco guarantees that in case the Contact Person cannot be reached, another official representative from Batelco can be reached 24 hours a day, seven days a week.*"

Service Terms – Clause 3

221. Please refer to the Authority's comments in paragraphs 48 to 51 above.

SNFM Space – Clause 4

222. For the same reasons detailed in paragraph 52 to 55 above, the Authority orders the deletion of this text related to SNFM space.

ANNEX A: LEGAL REASONING

General Service Terms – Clause 5

223. Batelco outlines in its submission that the delivery time that will apply for any SNFM service is 65 working days, whether it is co-mingling, dedicated or shelter collocation.

224. Batelco adds that the following steps are required for each type of space:

- a. site space preparation;
- b. site power preparation;
- c. ordering and installation of HDF Blocks and Tie Cables; and
- d. fire and air handling preparation.

225. Taking into account the maximum delivery time in each country included in the benchmark, the Authority considers that an average delivery time is between 65 and 70 Working Days for co-mingling and dedicated collocation. As for sheltered collocation, the average delivery time is 45 working days.

Working days	co-mingling	dedicated collocation	shelter collocation
UK	60	90	
France	From 20 to 90 working days	From 20 to 50 working days	50
Belgium	From 45 to 60 working days		45
Bahrain	max. 65	max. 65	max. 65
Average max. practice	70	67	48
Average min. practice	42	52	48

Table 3: Comparison between different operator's collocation options readiness time (Source: Access Provider ROs)

226. As suggested by Batelco, if it provides only the shelter space but not the shelter itself, it will not be required to follow all the steps detailed at paragraph 224. Batelco would therefore be able to achieve much shorter delivery time for shelter collocation.

227. Taking into account Batelco's arguments and the times given by the benchmark in the table above, the Authority does not consider the delivery times proposed by Batelco to be fair and reasonable and orders that:

- a. The delivery time shall be specified for each type of collocation as in b, c and d below;
- b. With regards to dedicated collocation, the delivery time proposed by Batelco shall be initially set at 65 working days as proposed by Batelco.
- c. With regards to shelter collocation, the delivery time proposed by Batelco shall be initially set at 45 working days.

ANNEX A: LEGAL REASONING

- d. With regards to co-mingling, the delivery time shall be reduced from 65 working days to 30 working days for 6 Service Nodes. This list of services nodes has been established based upon the site survey carried out during January 2009:
- i. MAN (Manama Service Node);
 - ii. RIF (Riffa Service Node);
 - iii. CEN (Central Service Node);
 - iv. MHQ (Muharraq Service Node);
 - v. JUF (Juffair Service Node); and
 - vi. ITN (Isa Town Service Node).

Insurance – Clause 9

228. This clause is asymmetric in effect. It potentially duplicates the insurance requirements of the Supply Terms and the insurance requirements amongst multiple OLOs (OLOs duplicating insurance policies for the same risks). The Authority considers this may be inefficient and may also be unfair and unreasonable in that it may provide an unnecessary burden among OLOs. As OLOs will have equipment on site it is reasonable that any risk of loss they face is also covered. For this reason Batelco is also required to obtain and keep in effect property and workman's insurance.

229. The Authority considers that the purchase of multiple policies between Batelco and OLOs duplicates insurance, however at this stage, to avoid further disputes and delays, the Authority does not require that there be one policy covering all users of the Batelco Service Nodes (“BSNs”) and their equipment. Batelco and each OLO are free to purchase their own policies. However the Authority will encourage the industry to consider purchasing one joint insurance policy that covers each BSN and each operator's risks therein.

SNFM License - Annex 1

230. The Authority orders that Annex 1 of the SNFM License be amended on the basis of the mark-up version attached in Annex B (a version with track changes is shown in Annex C) of the Reference Offer Order No 1 of 2010, to reflect the following:

- a. Removal of the OLO's Equipment: Batelco initially proposed that the OLO should pay Batelco for removing their equipment. However, the Authority considers it is not fair and reasonable since the OLO could remove its equipment by itself and therefore not have to pay anything to Batelco. As a consequence, the Authority considers that the OLO may have the option to remove its equipment on its own or request Batelco to do so in case of a governmental or administrative instruction requiring such removal.

ANNEX A: LEGAL REASONING

- b. Batelco indicated in its submission that it will carry out the maintenance of the space and that *“a charge for time and materials shall be made by Batelco for corrective maintenance”*. However, maintenance should be entirely included in the *“License Fee”* and this paragraph has therefore been modified. It would neither be fair nor reasonable to charge for corrective maintenance as this would lead to double charging.

231. Batelco states at paragraph 7 of Annex 1 that *“For the sake of clarification, maintenance of the Access Seeker Space shall be carried out by Batelco and a charge for time and materials shall be made by Batelco for corrective maintenance”*.
232. The Authority also notes that Batelco has not provided any definition of *“corrective maintenance”*.
233. The Authority considers that notice periods should not be left open and should at least have a minimum period assigned to it. This issue will be addressed when LLU SDs are reviewed
234. As license fee should include all costs related to maintenance, the Authority considers that any costs associated with corrective maintenance should already be covered in the license fee. To avoid double counting which would be neither fair nor reasonable, the Authority has modified the sentence indicated in paragraph 231 above as indicated in the clean SDs found in Annex B to this Order.
235. Furthermore, the Authority finds the text proposed by Batelco in paragraph 10 of the SNFM SD very limited and one sided, the Authority does not consider it fair or reasonable that the OLO should be liable and indemnify for events that might be caused by Batelco.
236. The Authority therefore orders the removal of paragraph 10 and the amendment of paragraph 11 as indicated in the track version of the SNFM SD.

SNFM Charges- Annex 2

237. The Authority notes that Batelco has included in Annex 3 of the UMP SD chargeable activities for which it has not provided any justification. These activities are:
 - a. Service charge;
 - b. Security and working practices audit note;
 - c. Security partitioning.
238. The Authority orders that the above stated unjustified chargeable activities be removed from the SNFM SD.

Summary Security Requirements - Annex 3

239. Batelco indicates in Annex 3 of the SNFM SD that it can refuse access if OLOs cannot provide a Contact Person name and number or if this Contact Person cannot be

contacted. The Authority notes that Batelco has not provided any clarification for why a Contact Person name is required in all cases. The Authority therefore considers the actions in paragraph 241 below.

240. On the other hand, the Authority considers that it is fair and reasonable to ensure that OLOs can always reach a Batelco contact (in case of emergency). As a consequence, the Authority amended the following paragraph to the Contact Person Definition as indicated in paragraph 220 above: *“Batelco guarantees that in case the Contact Person cannot be reached, another official from Batelco can be reached 24 hours a day, seven days a week.”*
241. As a consequence of the above changes the Authority orders that points (b) and (c) at paragraph 3.1 of the SNFM SD shall be deleted as these are irrelevant.

Summary of Batelco’s response to “SNFM Service Description”

Service Terms – Clause 3

242. With regards to the termination period of 12 months in case a regulatory obligation no longer exists, Batelco refers the Authority to its comments in paragraphs 131 to 133 above.

Insurance – Clause 9

243. Batelco does not agree to having a reciprocal obligation for insurance liabilities. Batelco argues that it is *“more exposed compared to OLO’s equipment and scale in any given Batelco Service Node”*.
244. Batelco also states that the drafting proposed by the Authority indicates that Batelco is liable to pay the GOSI insurance fees for OLO’s employee. Batelco believes this should be clarified.

SNFM License – Annex 1

245. Batelco agrees with the Authority regarding “cost sharing for removal requirements outside Batelco’s control”.
246. Batelco argues that the Authority did not justify why it was fair and reasonable to remove specific liability cap for stand-alone SNFM license. Batelco further argues *“We are not sure about this last reference as there is no indemnity provision. Often liability caps in commercial contracts are set at the value of the contract, yet the TRA wishes to depart from this principle by deleting the whole clause”*.

Summary Security Requirements – Annex 3

247. Batelco disagrees with the Authority's amendments in Annex 3 of the UMP SD. Batelco requests that it maintains the ability to refuse access to OLOs' visitors who cannot provide a contact name and number or if this contact cannot be reached. Batelco explains that this applies only to non-registered staff.

Additional comments by Batelco

248. Batelco asks the Authority not to set excessive cap levels at the start of a service, especially in the context of manual launch. Batelco further requests that service levels and credits should not be implemented from the start of LLU.

The Authority's analysis and conclusion for "SNFM Service Description"

Service Terms – Clause 3

249. With regards to the termination period of 12 months in case the regulatory obligation to offer LLU no longer exists, the Authority refers Batelco to its reasoning provided in paragraphs 164 to 170 above.

Insurance – Clause 9

250. The Authority's original concerns with this clause as drafted were:

- (a) That the obligation is asymmetrical; and
- (b) That it requires parties to expressly enter into a statutory insurance (GOSI Workman's Insurance).

251. Batelco accepts the Authority's comments regarding GOSI insurance made by the Authority in its letter of 27 February 2011 (Reference MCD02/11/018), although Batelco stated in its response of 02 March 2011 (Reference GCL/95/11) that the clause was inserted for "*contractual certainty*". The Authority understands Batelco's comments and has amended the clause to reflect that each party is responsible for its own GOSI costs.

252. However, with respect to Batelco's coverage of OLO's risk the Authority still considers that a level of insurance should be effected by Batelco. Batelco seeks OLOs to effect insurance for a value of up to BD300,000 from each OLO. This is an upper limit of insurance. Batelco has not justified how this upper limit has been set. OLOs will also be placing valuable equipment in exchanges and their property is similarly at risk. Although the value of the property may be less than Batelco's the Authority can see no reason at this stage to reduce the upper value of insurance that Batelco should effect in the event of it being liable for damage to an OLO's property or personnel. As such, for immediate purposes, Batelco should effect insurance to the same value as it requires from the

ANNEX A: LEGAL REASONING

OLOs. The Authority notes that this is consistent with Batelco's existing indemnity provisions under clause 17 of the Supply Terms.

253. This matter could be reviewed in time either voluntarily by Batelco and OLOs or by the Authority. Time may be required for a proper risk assessment to be made by an actuary. However the Authority sees no reason why this should prevent parties from effecting insurance to cover the indemnity being granted to each other in terms similar to clause 17 of the Supply Terms. As such the Authority orders that clause 9.1 of the SNMF Service Description be replaced with the following text:

“9.1 Until such time as the parties agree otherwise and after obtaining approval of the Authority for such amendment, Batelco and the OLO shall each procure and maintain for the duration of this service third party liability insurance policies with the other being named as a named beneficiary to cover personal injury and property damage claims up to BD300,000 for each BSN. The terms of such policies shall include provisions whereby, in the event of any claim or proceedings under the policy being brought or made against the other party, the insurers shall indemnify the other party against any costs, charges and expenses thereof. At all times the parties shall hold appropriate workman’s insurance (General Organisation for Social Insurance (“GOSI”).”.

SNFM License – Annex 1

254. In relation to the SNFM licence and cost sharing for removal requirements outside Batelco's control, considering that Batelco agrees with the Authority, the Authority remains of the view that its proposed change is reasonable.
255. Batelco's original text at paragraph 10 of the SNFM SD required the OLO to waive any liability from Batelco, howsoever caused, and if any liability was found, limited it to BD10,000. The Authority still considers that the original waiver and liability cap provisions are unfair, unreasonable and discriminatory as the OLO faces a risk when entering into and placing its equipment in Batelco's Service Nodes. Damage may be caused to the OLO's equipment or personnel, which may have flow on effects upon the OLO's business and could be greater than BD10,000. The Authority has included a mutual indemnity clause which would cover for the loss caused by either party to the other party's equipment or personnel.
256. Furthermore, the Authority has also modified the insurance requirement at paragraph 9 of the UMP SD which should cover damages caused to each operator's equipment and personnel, the parties should be entitled to avail of these if necessary. The Authority agrees that the word “indemnity” is incorrectly used in the Draft Order at paragraph 235 above whereas the text should have referred to “waiver” instead.

Summary Security Requirements – Annex 3

257. The Authority agrees with Batelco on the necessity to maintain safeguards in case OLO's non-registered visitors are not able to provide a contact person name and number, or if this contact person cannot be reached.
258. The Authority considers that the SNFM SD security clause concerned herewith be modified accordingly. The Authority believes it is also necessary to indicate that this only relates to OLO's non-registered visitors.

Additional comments by Batelco

259. With regards to the setting of excessive service credit caps, the Authority notes that it has not proposed any increase of service credit cap related to SNFM, the Authority is of the view that the argument developed by Batelco is not relevant for the SNFM SD as the Authority has not proposed to modify the total service credit cap for SNFM.
260. It would appear that Batelco may have been referring to the Service Credit Cap set for the UMPB service instead of the SNFM service. In any case the following justification applies:
- a. The Authority notes that it has already approved the initial timelines proposed by Batelco despite some of these timelines being out of step with international best practices.
 - b. The Authority considers that the timelines proposed by Batelco are not demanding and having manual launch with service levels is not necessarily difficult to meet.
 - c. The Authority therefore maintains its Draft Order position in relation to the level of service credits cap.
 - d. As explained at paragraph 182 above, the Authority considers that it is imperative that there are service levels in place from day one of LLU in order to provide OLOs with the required certainty and Batelco with the required incentives to honour timelines. The absence of service levels at the wholesale level has been identified as a key impediment to access-based competition.

Draft Order text related to “UMPB Service Description”

UMPB SERVICE DESCRIPTION (UMPB SD)

Definitions – Clause 2

261. The Authority notes that Batelco has proposed a Total Service Credit Cap of 40%, which stops any rebates beyond a window of 2 weeks.
262. The Authority does not consider this to be fair and reasonable as the UMPB forms a crucial part of the LLU Service.
263. Using the same factor identified in the correction of rebates and rebate caps in the UMP service description, the Authority considers the Total Service Cap to be 4 times the service rebate.
264. Furthermore, the Authority considers it reasonable to add another 2 weeks to the breach period, as proposed by Batelco in the UMPB SD with rebates covering periods of up to 5 weeks, the Authority therefore orders the Total Service Credit Cap to be set at 160%.

Terms – Clause 3

265. Batelco has stated at paragraph 3(d) of the UMPB SD that “*The UMPB Service presentation interface to the Access Seeker will be optical*”.
266. Because both electrical or optical interfaces may be used by Batelco and this should not be restricted, the Authority orders the sentence to be amended to read that “*The UMPB Service presentation interface to the Access Seeker may either be optical or electrical*”.
267. The Authority considers backhaul testing is critical in so far as backhaul will determine the quality of the service that OLOs will be able to provide to end users.
268. The Authority therefore orders the following amendment to paragraph 3.4 (a) of the UMP Backhaul Service Description: “*The full final results of the test shall be given in written format to the OLO (including latency)*”.
269. Batelco does not specify in the proposed LLU SDs whether the backhaul it proposes is protected or not.
270. The Authority notes that the fact that backhaul is protected or not is not necessarily specified in the ROs in other countries.
271. Furthermore, the Authority notes that Batelco provides protection for the CAT and LLCO service where speeds include and exceed 45 Mbps.
272. As this was not clearly identified and may be a necessary item which OLOs need to be aware of, the Authority orders the following amendment to paragraph 3.5: “*For the protection line provided by Batelco as part of the backhaul (45Mbps and higher speeds),*

specification of the protection line shall be provided by Batelco to the OLO upon request”.

Charges – Clause 4

273. Batelco proposed in its submission backhaul prices for speeds starting 64Kbps up to 155Mbps.
274. The Authority notes that, as the backhaul service is required to be a high speed service in order to allow the OLOs to carry core network traffic back to their platforms, the Authority considers that speeds below 2048Kbps shall be removed from the table of speeds available for LLU Backhaul proposed by Batelco.
275. The Authority requires Batelco to develop and introduce an e-carrier based service for bandwidths starting at 10Mbps after 6 months from this Order.

Summary of Batelco’s response to “UMPB Service Descriptions”

276. Batelco requires clarification on the Authority’s understanding of e-carrier system that provides 10Mbps and latency measures. Batelco also submits that this is a requirement of uncertain scope without further explanation.

The Authority’s analysis and conclusion for “UMPB Service Descriptions”

277. On 11 December 2010, the Authority received from Batelco a proposal for a wholesale MPLS offer on which the Authority provided extensive comments on 7 February 2011 (Ref: MCD/02/11/009). The Authority expects that such wholesale offer can meet the requirement to offer a Carrier Ethernet based service
278. The Authority considers Carrier Ethernet based services to be an appropriate backhaul solution that will provide bandwidth flexibility to OLOs that require backhaul services in conjunction with LLU.

Terms - Clause 3

279. The Authority understands that the number of Services Credits found in the table under paragraph 3.3 (b) in the UMPS SD submitted by Batelco are cumulative (e.g. if the actual provisioning time exceeds the maximum Delivery Lead Time by 1.5 weeks then the total applicable service rebate is 25 Services Credits, 10 for the first week and 15 for the second week or part of). In order to make the table more understandable, the

Authority has amended the table by replacing the number of Service Credits of a particular period with the total applicable number of Service Credits.

Charges - Clause 4

280. In accordance with the Authority's decision in the IFC Determination²¹, the Authority has set the riser charge equal to the RO duct rental charge (item 2-3.9 of schedule 7) on which a 300% premium is added to reflect the specific nature of some Service Nodes. Given the currently applicable duct rental charge, the charge for "*Riser license rental charge (in connection with alternative backhaul provision)*" is set at BD 0.756 per meter of riser within any Service Nodes against the charge of BD 25.000 per meter proposed by Batelco. Any future change to the duct rental charge made after the issuance of this Order shall automatically apply to this charge.

Draft Order text related to "Specific Information Service Descriptions"

SPECIFIC INFORMATION SERVICE DESCRIPTION (SI SD)

281. For the Specific Information Service, the Authority orders the following amendments as per the reasons set out below:

Terms - Clause 3

282. The Authority notes that Batelco states in paragraph 3.1 (a) iv. of the Specific Information Service Description submitted on 20 June 2010, "*for as long as the Access Seeker has a UMP Service provisioned or to be provisioned at that relevant BSN*", the OLO can be provided with Specific Information.

283. The Authority does not consider this to be fair, reasonable or non-discriminatory as OLOs should be able to ask for information before having any unbundled lines at any time, and therefore orders that this clause be removed from the service description.

284. Batelco specifies in paragraph 3.1 (b) (iii) that it will propose, in addition to the Specific Information service, a premium helpdesk service to be operational during standard Batelco working hours. This service is intended as a support service to the information provided, and not as the main service.

285. As any faults in the information provided by Batelco to the OLOs is the result of inaccurate data residing in Batelco's systems or databases, the Authority considers that

²¹ Article 57(g) Determination No. 1 of 2010, "*Determination issued by the Telecommunications Regulatory Authority to Bahrain Telecommunications Company B.S.C. and Menatelecom pursuant to Article 57(g) of the Telecommunications Law regarding the dispute related to the terms and conditions of Batelco's International Falcon Connection Service*", 29 July 2010, Reference (LAU/0710/140).

the OLOs should not suffer the consequences of such defect data. The Authority therefore considers that the helpdesk for identifying and confirming the End User address boundary should not be charged to the OLOs on a call by call basis.

286. Furthermore, the Authority is aware that there are no Service Levels defined for the helpdesk support.
287. The Authority recognises that the helpdesk is an improvement of the LLU SD to assist OLOs in checking boundary lines and in locating which service node their End Users reside in. However, if the proposed service is only a helpdesk, it may be better in the future to develop a website in order to ease the process between involved parties.
288. Depending on the costs incurred by Batelco, the Authority considers that helpdesk cost could be recovered in LLU Specific Information costs in the following year.
289. Accordingly, the Authority has amended the charges table in Clause 4.

Service Levels

290. Whilst the Authority ordered in Access Order 1 of 2009 that the lead time for the provision of SIs shall be 5 working days, the Authority is of the view that Batelco has provided sufficient justification to extend this lead time to 20 working days. The Authority therefore accepts Batelco's proposal that the total lead time for Specific Information shall be initially set at 20 working days.
291. Batelco distinguishes 2 Service Levels for 2 Specific Information categories. The first category corresponds to all information (excluding CLTQS) which will be delivered within 20 working days (5 days for validation plus 15 days for delivery from acceptance) whereas the second category corresponds to results of any xDSL tests performed by Batelco (excluding CLTQS) which will be delivered within 10 working days (5 days for validation plus 5 days delivery from acceptance).
292. The Authority observes that Batelco's Service Levels applicable to the first category clearly exceeds the following benchmark countries:
- a. in France, the UK, Belgium and Ireland information is immediately available through an extranet, and
 - b. in Luxembourg and Malta the delivery time is respectively 5 and 8 working days.
293. The Authority concludes that the Service Levels for SI remains as proposed by Batelco and subject to a review after 6 months on the basis of KPIs (retail and wholesale) produced by Batelco in order to reach a fair and reasonable total lead time compared to countries where LLU has been successful.

Summary of Batelco's response to "Specific Information Service Descriptions"

294. Batelco asks the Authority to clarify its position in regards to the Premium Helpdesk Charge, taking into account that Batelco would like to recover the costs incurred by this service.

The Authority's analysis and conclusion for "Specific Information Service Descriptions"

295. The Authority considers that the issue of help desk costs should be addressed at the next review of the LLU SD given the absence of justification provided by Batelco for the proposed charges and the uncertainty regarding the level of costs involved. It is questionable whether Batelco should be able to recover those costs to the extent that they may be caused by the inaccuracy of Batelco's records.

296. The Authority is keen to ensure that the opportunities for abusive practices are minimised and for this reason considers that it is essential that OLOs calls to the free helpdesk regarding contiguous addresses are attended to and resolved without undue delay. Undue delays are likely to adversely impact OLOs. Therefore, the Authority will closely monitor the functioning of the helpdesk and requests Batelco to keep records of the details of each call received, including the duration and effective answering time.

SECTION 2: LEGAL BASIS AND REASONING FOR PRICE TERMS

Draft Order text related to “SECTION 2: LEGAL BASIS AND REASONING FOR PRICE TERMS”

297. Following is the Authority’s Legal Basis and Reasoning for the price terms of the Local Loop Unbundling and Ancillary service descriptions.
298. Article 57 (e) of the Telecommunications Law, promulgated by Legislative Decree No. 48 of 2002, and Article 5.1 of the Access Regulation issued on 30 April 2005 require operators determined by the Authority to have a dominant position in a particular telecommunications market to publish a Reference Access Offer (“**RAO**”) after obtaining the Authority’s approval of the offer.
299. Batelco was found to be in a dominant position in wholesale broadband markets, as set out in the Dominance Determination published on 14 September 2009.
300. In accordance with articles 3.3 and 4 of the Access Regulation and pursuant to paragraph 4 of Annex A (“*Implementation*”) of Access Order No.1 of 2009, Batelco is therefore required to prepare, as part of its RO, a LLU SD that includes, the Unbundled Metallic Path Service Description and ancillary service descriptions including Specific Information, Backhaul, Service Node Collocation and Tie Cables Service Descriptions.
301. In accordance with article 57(e) of the Telecommunications Law and article 6 of the Access Regulation, should the Authority consider the proposed tariffs not fair, not reasonable and discriminatory, then the Authority may determine such tariffs and terms and conditions as it considers appropriate. Article 5 of the Access Regulation states the procedure of the Authority to issue an approval or order on the RAO.
302. For LLU tariffs, article 7.1 of Annex A of Access Order No.1 of 2009 indicates that the Authority will take into consideration the current available cost information from Batelco as well as international benchmarking in relevant markets.
303. On 20 June 2010 Batelco submitted to the Authority its final LLU SD for review and approval.
304. Having conducted a review of the tariffs contained within the initial submission and having requested, received and reviewed additional information, the Authority considers that certain tariffs of the submission are not fair, not reasonable and/or discriminatory.
305. Consequently the Authority has decided to exercise its power in accordance with article 5.3 of the Access Regulation to issue this Order to Batelco.
306. This Section provides a detailed explanation of the concerns of the Authority and the rationale for the ordered tariffs.

307. The Authority considers that the ordered tariffs should be reviewed no earlier than as part of the RO submission of 4 December 2011, unless an earlier review is deemed necessary by the Authority. The analysis of LLU cost, as detailed in this Order has been extensive. OLOs, which will make use of LLU, will need to make substantial investment and require some visibility regarding the applicable rates in order to make these investment decisions.
308. Article 3(c)(1) of the Telecommunications Law grants the Authority the power to issue regulations, orders and determinations as may be necessary for the implementation of the Telecommunications Law, including determinations in connection with, amongst other things, interconnection, access to the network and its facilities, services tariffs, access to real property and the promotion of competition.
309. Pursuant to its powers under article 5.3 of the Access Regulation, the Authority may, issue an Order with respect to the Reference Access Offer in circumstances where the terms and conditions and tariffs are not fair, not reasonable and/or discriminatory.
310. Other than as detailed in this Order, the Authority has used costs based on the Batelco 2008 Fully Allocated Cost (“**FAC**”) regulatory accounts in determining tariffs.
311. Pursuant to article 57 (e) of the Telecommunications Law and article 5.3 of the Access Regulation, the Authority is required to decide whether it considers or determines that any tariffs or terms are unreasonable, unfair or discriminatory. When doing so, the Authority shall:
- a. Pursuant to its obligations under article 3(a) of the Telecommunications Law, act reasonably and in a non-discriminatory transparent manner.
 - b. Pursuant to its obligations under article 3(b) of the Telecommunications Law, ensure that in considering or determining that any terms or tariffs are unreasonable, unfair or discriminatory, carry out its duties in a manner best calculated to:
 - i. protect the interests of subscribers or users as set out in article 3(b)1; and
 - ii. promote effective and fair competition as set out in article 3(b)2.

Premise of fair, reasonable and non-discriminatory tariffs

312. The Authority considers tariffs to be fair and reasonable if such tariffs are based on relevant, efficiently incurred economic costs calculated on a forward looking incremental basis, including the regulated rate of return on capital employed. Regarding LLU tariffs, in addition to cost, international benchmarking in relevant markets is also considered as indicated in article 7 of Annex A of the Access Order 1 of 2009.
313. In accordance with the Accounting Separation Regulation issued 2 August 2004 (Regulation 2 of 2004), Batelco is required to submit for approval to the Authority its Accounting Procedures Manual (“**APM**”). The FAC part of the APM sets the principles

and methods according to which the regulatory accounts must be prepared by Batelco to produce FAC costs. It details to a certain extent the accounting treatment of costs and their allocation for all Batelco business units.

314. In assessing whether the LLU monthly rental charge is fair and reasonable and non-discriminatory, the Authority also considers the relative relationship between the price of equivalent wholesale and retail services. To this end the Authority has consistently applied the same competition-based analytical framework to analyse wholesale and retail tariffs in order to ensure that there is consistency between the charges applicable at various levels of the value chain. This framework looks at whether retail services can be replicated by OLOs which rely on wholesale regulated products and remain profitable, thereby ensuring that tariffs are compatible with the development of sustainable competition. The objective of introducing wholesale products which give access to bottlenecks controlled by dominant operators is to enable competitors which do not control such bottlenecks to compete at the downstream level. This is a core premise of the wholesale regulation of dominant operators.

315. In setting charges which are fair and reasonable, the Authority has also taken into consideration the principle of non-discrimination.

Details of ordered charges

316. According to Access Order 1 of 2009 Batelco is required to provide, in its submission, LLU SDs including corresponding charges for the following:

- a. An Unbundled Metallic Path Line (“UMPL”) Service Description; and
- b. Ancillary Service Descriptions, including Backhaul, Service, Node collocation, Blocks and Tie Cables, as well as Specific Information Service Description.

Unbundled Metallic Path Service

317. The Unbundled Metallic Path (“UMP”) service provides an OLO with access to the full useable spectrum of a dedicated metallic path to an End User for the purposes of providing services in the Kingdom of Bahrain. In the UMP Service Description submission, Batelco has detailed the different chargeable activities.

318. The Authority hereafter analyses the charges proposed by Batelco for the following chargeable activities.

a. UMPL Connection and Cessation Charges

319. The UMPL Connection/Cessation chargeable activity consists of the provision/cessation of the Unbundling Metallic Path service by Batelco to the OLO once a UMP Service Request or a UMP Cease Request has been sent to Batelco. Both services have been evaluated at BD 41.350 per connection/cessation by Batelco.

320. To justify these charges Batelco has provided details on the methodology and parameters used to calculate these charges. Batelco has split the UMPL Connection and Cessation services into the different tasks to be completed by Batelco's administrative and technical personnel of grade G1. Amongst the different staff grades in Batelco, the staff with grade G1 is the staff assigned to perform the technical and administrative tasks described in the LLU SD.
321. According to Batelco, the provisioning process for UMPL Connection and Cessation includes six tasks:
- validate and check the order;
 - send an accept/reject letter providing the reason;
 - raise an Order in Service Provisioning System;
 - commence a truck roll;
 - daily check of pending orders and follow-ups; and
 - send an on-service confirmation.
322. To calculate the cost of each task, Batelco has multiplied the estimated duration to complete each task by the cost per minute of G1 staff.
323. In accordance with Batelco's submission, the duration of each task varies between 5 minutes for tasks No.2 and 6 to 15 minutes for tasks No.1, 3 and 5 as set out in Table 4 and Table 5.

[REDACTED]

Table 4: Times related to the Provision process for UMP Order

[REDACTED]

Table 5: Times related to the Cessation process for UMP Order

324. The cost per minute of G1 staff is BD [REDACTED], it is based on the grand total monthly charge out rate as indicated in Table 6.

[REDACTED]

Table 6: Grand Total monthly charge out

325. The Authority requests Batelco to explain how the 21 BD per hour was derived. The per-hour rate is 17 BD (considering the calculation to be as $2639 \times 2 / (52 \times 5 \times 8) - 15.2$). Depending on Batelco's response, the Authority may adjust the charges based on time.

326. Based on the charge out rate per minute, the total cost of the provisioning/cessation charge is BD [X], as set in Table 7.

[X]

Table 7: Distribution of costs related to the Provisioning/Cessation process for UMP Order

327. The Authority is of the view that the list of tasks detailed by Batelco includes all the necessary steps for the provisioning/cessation process and that the methodology for the calculation of the provisioning/cessation charge is appropriate.

328. To assess whether the proposed durations of each task are fair and reasonable, the durations given by Batelco were compared with three countries where publicly available decisions on the issue of task duration for UMP provisioning were available: the United Kingdom, France and Italy:

- a. in the United Kingdom, Ofcom, made a decision on the level of charges for LLU migration²²;
- b. in France, ARCEP, made a decision directing France Telecom to change its RO, including LLU connection fees²³; and
- c. In Italy, AGCOM, made a decision on the evaluation of the economic conditions for the provision of LLU²⁴.

329. Based upon these three decisions, it is possible to check whether Batelco's proposed task durations are fair and reasonable, and in line with international practice. It should also be noted that LLU has been successful in these three countries. Further, the decisions in France and Italy were taken in the early stages of LLU and consequently the durations included in these decisions can be considered as upper limits and conservative values.

330. In accordance with Table 7, it is possible to distinguish administrative tasks that correspond to tasks No.1, 2, 3, 5 and 6 from the technical task that corresponds to task No.4. Batelco determined that [X] minutes are necessary in order to complete administrative tasks for the UMP provisioning/cessation per order.

331. In its decision, ARCEP emphasised that the duration set by France Telecom for administrative tasks at 60 minutes was excessive. ARCEP estimated the average time of administrative tasks at 30 minutes, which is 36% lower than Batelco's proposal.

²² OFCOM – "Determination to resolve a dispute between Opal Telecom and British Telecommunications PLC (Openreach) about LLU bulk migration charges" – 2 June 2006.

²³ ARCEP – "Décision n° 01-135 de l'Autorité de régulation des télécommunications en date du 8 février 2001 demandant à France Télécom d'apporter des modifications à son offre de référence pour l'accès à la boucle local" – 8 February 2001.

²⁴ AGCOM – "Delibera 14/00/CIR "Valutazione delle condizioni economiche dei servizi di accesso disaggregato a livello di rete locale contenute nell'offerta di riferimento di Telecom Italia del 12 maggio 2000" – 12 May 2000.

ANNEX A: LEGAL REASONING

AGCOM indicated that the proposal of Telecom Italia to charge 95 minutes of work for administrative tasks was also excessive and estimated the average time to 48 minutes, which is 12% lower than Batelco's proposal. Ofcom did not analyse the duration of administrative tasks.

332. Having regards to the benchmarks and considering that the administrative tasks regarding the connection and cessation services are completed by checking first the address and DP upon receipt of an order, then checking if there are pairs available and finally registering the order in the system, the Authority considers the time proposed by Batelco for administrative tasks is excessive and as such is neither fair nor reasonable. The Authority therefore orders that the durations shall be reduced to 39 minutes which is the average duration given by ARCEP and AGCOM. The cost of administrative tasks therefore decreases from BD [X] to BD [X].
333. According to Batelco, the cost of technical tasks amounts to BD [X] per order and the implied duration to complete the task is 63 minutes²⁵. This duration can be compared with the durations set by other NRAs.
334. ARCEP indicated that the 80 minutes duration set by France Telecom for technical tasks was excessive. ARCEP reduced it to 45 minutes while OFCOM set the duration of technical tasks at 26 minutes. In Italy, AGCOM rejected the proposal from Telecom Italia to charge for technical tasks based on 75 minutes. It directed Telecom Italia to calculate the price of the connection fees based on a 30 minutes duration.
335. Having regards to the above, the Authority therefore considers that the duration proposed by Batelco to complete the technical tasks for the provisioning/cessation services are overestimated and as such are neither fair nor reasonable. Consequently, the Authority orders that the duration is set at 34 minutes which is the average duration adopted between ARCEP, OFCOM and AGCOM. The cost of technical tasks based on this amended duration is evaluated at BD [X] instead of BD [X].

[X]

Table 8: Benchmark of administrative and technical tasks for the UMP connection process

336. The total cost of the Connection/Cessation services is estimated at BD [X] of which BD [X] represents the cost of administrative tasks and BD [X] represents the cost of technical tasks (see Table 9).

[X]

Table 9: Distribution of relevant costs related to the connection process for UMP Order

337. The Authority considers that the setting of task durations consistent with international benchmarks will give appropriate incentives to Batelco to efficiently process connection/cessation orders.
338. Further, the Authority considers that the approach followed is conservative in so far the LLU SD specifies that OLO will be able to send up to two batches per day (i.e. 20 orders) and hence the actual time taken by Batelco to process connection/cessation orders should be lower as Batelco will process orders in batches instead of one by one. Thus Batelco should be able to perform the administrative tasks in less time than indicated above.
339. The fair and reasonable UMPL Connection and Cessation Charge is set by the Authority at BD 25.550.

b. UMPL Survey Charge

340. The Authority considers that the UMPL Survey service is not relevant and orders its removal from the list of chargeable activities of the LLU SD. The reason why this survey (which provides technical data on a specific local loop to OLOs) may be necessary is because of the inaccuracy of Batelco's LPQM system. Thus, the Authority considers that it would be unfair and unreasonable to include this charge.
341. The Authority also notes that this charge does not exist for Batelco's own retail customers. It can therefore be deducted that it is included in the relevant cost stack for the UMP monthly rental charge. The Authority considers that the introduction of this chargeable activity is not justified and would lead to double counting.

c. UMPL Line Continuity Charge

342. The UMPL Line Continuity Test consists of a tone test carried out by Batelco between the MDF and the network boundary (i.e. the DP). Batelco has estimated the cost of that test at BD [X].
343. Batelco has estimated task No.4 "Truck roll" above at BD [X]. This task includes the Line Continuity Test and the jumpering. The amount given by Batelco is therefore an upper bound of the cost of the Line Continuity Test as there is no jumpering to be made.
344. For the same reasons outlined above, the Authority estimates the cost related to this task to be BD 11.900.
345. The Authority therefore considers that the fair and reasonable UMPL Line Continuity Test cost is equal to BD 11.900.

d. Reject, Reversal, Withdrawal Charge

346. This service consists of the rejection of an incomplete or incorrect or illegible Order sent by an OLO to Batelco. If this happens, Batelco proposes to charge the OLO BD 7.000.
347. Batelco provided a breakdown of the Reject, Reversal and Withdrawal charge into two different tasks that correspond to check the Order to accept/reject and send an Accept/Reject letter providing the reason in case of rejection. To calculate the costs of each task, Batelco estimated the duration of each task and multiplied it by the cost per minute of its personnel in charge of its completion (see Table below).

[X]

Table 10: Distribution of costs related to the process for Reject, Reversal, and Withdrawal charge of a UMP Order

348. The tasks identified are the same as those specified for the Connection/Cessation charge calculation and correspond to the same type of operation. The Authority therefore is of the view that the durations related to these tasks have been overestimated. The Authority considers that the tariff should be reduced in the same proportion as the Connection/Cessation administrative charges, i.e. by 29%.
349. The Authority set the fair and reasonable charge for the Reject Reversal and Withdrawal chargeable activity at BD 5.000 instead of BD 7.000.

e. UMPL Rental

350. The UMPL rental charge covers the costs related to the copper local loop. The OLO requesting the UMP service will be charged each month the UMPL Rental. Batelco has proposed a UMPL rental of BD 6.090 /month/line.
351. To assess whether Batelco's proposed UMPL Rental charge is fair, reasonable and non-discriminatory, the Authority takes into consideration the following:
- a. Non-discrimination / margin squeeze analysis to assess whether retail services can be replicated based on the proposed LLU rental charges;
 - b. Batelco's FAC cost information; and
 - c. International benchmarking.
352. While the margin squeeze analysis assists in determining whether the proposed LLU monthly rental is discriminatory, the analysis of Batelco's costing information is used to set the LLU rental. Benchmarking is merely used to inform the range of what may constitute appropriate rates.

Non-discrimination – margin squeeze analysis

353. The purpose of this analysis is to assess the margin of an OLO wishing to compete with Batelco at the retail level using the LLU product as a wholesale input. The margin is a function of the LLU rental charge and is calculated as the difference between expected revenues and the OLO's LLU costs incurred to replicate these offers. The difference between the two is called the economic space. If the economic space is greater than downstream costs, then there is no margin squeeze.

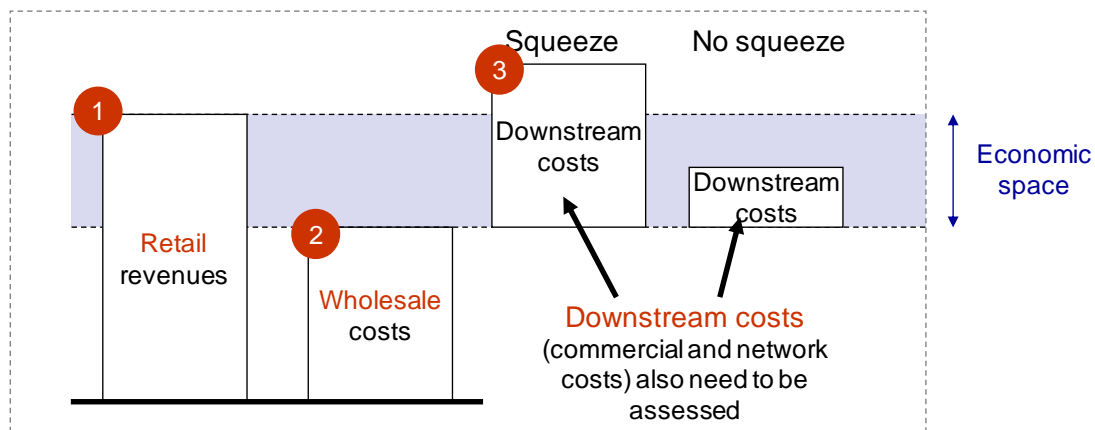


Chart 5: Definition of the economic space

354. On the revenue side, an OLO using full LLU can expect the following revenues:

- a. Revenues from broadband services;
- b. Revenues from the fixed line rental;
- c. Revenues from the line installation; and
- d. Revenues from voice calls.

355. The costs incurred by an OLO using the LLU product to replicate Batelco's retail broadband offers are the following:

- a. LLU access cost;
- b. Inet Platform cost;
- c. Backhaul cost;
- d. International uplinks cost;
- e. BRAS cost; and
- f. Retail cost.

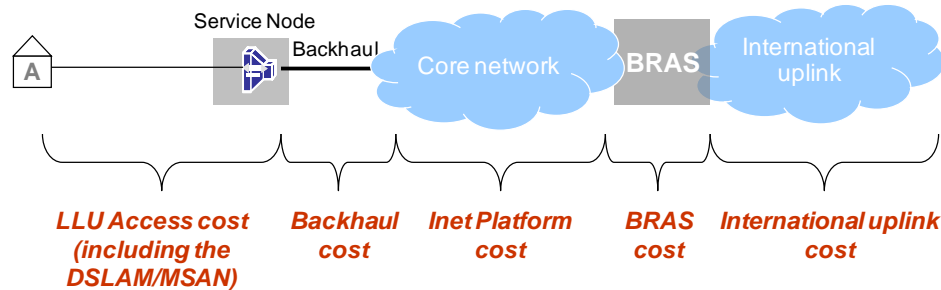


Chart 6: The various cost components for OLO using LLU (excluding retail costs)

356. Based on reasonable assumptions, the analysis conducted by the Authority shows that none of the retail broadband offers of Batelco can be profitably replicated with the BD 6.090 /month/line proposed by Batelco. This finding applies to all packages and for a 15% and 20% market share assumption. If voice call revenues are taken into account, the analysis shows that the retail broadband offers of Batelco cannot be profitably replicated with the BD 6.090 /month/line proposed by Batelco except for very low speeds (640 kbps and 1 Mbps), for which the margin between expected revenues and costs is slightly positive (for a 15% and 20% market share assumption²⁶).

357. Therefore, the margin squeeze analysis suggests that proposed price of BD 6.090 /month/line is discriminatory against alternative operators.

Analysis of Batelco's FAC information

358. In accordance with article 7 of the Access Order and article 57 of the Telecommunications Law, the purpose of the analysis of Batelco cost information based on its FAC regulatory accounts is to assess whether the proposed UMPL rental charge is fair and reasonable. This is done by analysing in details the breakdown of the relevant network elements to ensure that only relevant cost are included and by assessing the appropriateness of the principles and methodologies which underpin the FAC regulatory accounts for the purpose of setting the UMPL monthly rental.

359. In accordance with Batelco's 2008 APM, Batelco provides separate accounts for the following fixed business units: "Local Access Network Service Unit"; "Core Network Services Unit"; "Fixed Retail Services Unit" and "Other Fixed Retail Business Unit".

360. The copper access costs are included in the "Local Access Network Service Unit" which is composed of the following network elements:

- a. AN01 Access Copper
- b. AN03 MARS Microwave equipment;

²⁶ With a market share of 20%, there is also a very slight margin at 8 Mbps.

LLU Reference Offer Order

ANNEX A: LEGAL REASONING



- c. AN04 Broadband access equipment – DSLAMs;
- d. AN05 PSTN line cards.
- e. AN06 ISDN BRA line cards;
- f. AN07 ISDN PRA ports;
- g. AN08 Access Fibre
- h. AN09 CPE – Data Equipment;
- i. AN15 MSAN line Sensitive - Combo Card (Voice)
- j. AN16 MSAN ISDN Service Card (BRA)
- k. AN17 MSAN line Sensitive - Combo Card (DATA)
- l. AN18 MSAN Payphone
- m. AN19 MSAN ISDN Card –PRI
- n. AN20 MSAN G. SHDSL

361. The only relevant network element for the UMPL rental charge is AN01 Access Copper. The other network elements are all active network elements. The APM provides the following definition of AN 01 Access Copper: “AN 01 represent the cost of copper in the local access network, used to connect subscribers to the PSTN network, This network element includes costs allocated from infrastructure assets such as duct, cabinet, poles and distribution points.” Thus AN01 Access Copper includes costs related to the copper access network from the customer premises to the main distribution frame (MDF).

362. Based on information provided by Batelco, AN01 Access Copper can be further broken down in four categories:

- a. Depreciation;
- b. Return on capital employed;
- c. OPEX; and
- d. Un-attributable costs.

363. AN01 Access Copper costs amount to BD[<] and are distributed as follows: BD[<] of OPEX, BD[<] of depreciation, BD[<] of return on capital and BD[<] of un-attributable costs.

[<]

Chart 7: Distribution of AN01 Access copper costs

364. The Authority was able to reconcile the UMP rental proposed by Batelco with the regulatory accounts. The BD 6.090 /month/line is obtained by dividing the total cost for AN01 Access Copper by the total number of copper pairs [<].

[X]

Table 11: ULMP Rental charge calculation

365. The proposed charge is based on the total cost included in AN 01. The next steps in the analysis is to verify that only cost relevant to the UMP rental are included and then to modify certain parameters (i.e. the cost of capital and the asset lives used).

Identification of irrelevant costs

366. Having reviewed the different categories of depreciation included in AN01, the Authority believes that there are no irrelevant categories in Batelco's submission. However the Authority is of the view that some categories of OPEX and un-attributable costs are not relevant and should therefore be removed from the calculation of the UMPL Rental charge. Fair and reasonable charges should include only relevant costs.

OPEX

367. Batelco provided details of the 59 cost categories of costs that constitute Batelco's OPEX related to AN01 Access Copper.

368. As indicated by Batelco in its letter dated 14 April 2010 (ref GCL/145/10), some cost categories are irrelevant:

- a. "Service Assurance": As OLOs do not provide themselves CPEs to end users, this activity is irrelevant for the UMP service. This cost should therefore not be included in the calculation of the LLU rental;
- b. "Access Network Service Delivery and public payphone installation": Batelco specified that this category is not related to the UMP Service; and
- c. "MSAN, ASCOM, BDDN, GSM radio development": this activity is not related to access copper and should therefore be removed from the calculation of the LLU rental charge.

369. The Authority considers that there are two additional cost categories which are irrelevant for the UMP service and are therefore removed. They are:

- a. "NGN and IP core network management": This cost category is not relevant for the calculation of the LLU rental charge because it relates to the core network and not to the access network; and
- b. "Voluntary early retirement": This category reflects the cost associated with voluntary early retirement of Batelco's staff. In line with article 57 of the Telecommunications Law, the Authority is of the view that the UMP rental charge should be set on a forward-looking basis and reflect efficient cost.

Accordingly, the Authority is of the view that this cost category should be excluded from the UMPL rental charge. OLOs should not have to bear legacy cost reflecting Batelco's human resources polices, especially when Batelco is considered dominant in the wholesale broadband markets. The Authority's decision is consistent with the decision of many NRAs including the ARCEP²⁷ and the Portuguese regulatory Authority, ANACOM²⁸.

370. Having removed these irrelevant costs, the relevant OPEX amounts to BD [§<] in 2008.

Un-attributable costs

371. For the reasons set out above, the Authority is of the view that the cost category "Voluntary early retirement" included in the un-attributable costs category should be removed from the total amount of un-attributable costs.

372. In accordance with Batelco's APM, un-attributable costs are calculated on the basis of the Equal Proportionate Mark-up method ("EMPU"). Hence, having removed irrelevant costs it is necessary to adjust the amount of un-attributable costs on a pro-rata basis. The adjusted un-attributable costs for the UMP service in 2008 are BD 0.77M²⁹.

373. When irrelevant and un-attributable costs are removed from OPEX, the UMPL Rental charge is estimated at BD 5.100 /month/line instead of BD 6.090.

[§<]

Table 12: ULMP Rental charge after removing irrelevant cost categories

Applicable cost of capital

374. The UMPL Rental charge has been estimated by Batelco based on the 2008 regulatory accounts which reflect the cost of capital applicable in 2008, i.e. 12.2%.

375. However, as the UMPL Rental charge will apply from 2010, the Authority considers that the current cost of capital of 9.5% set by the Authority in its Determination dated 3 November 2009 should be used.

376. Once irrelevant costs are removed and the current cost of capital is applied, the UMPL Rental charge is BD 4.710 /month/line.

[§<]

Table 13: ULMP Rental charge after removing irrelevant cost and applying the current cost of capital

²⁷ Source: ARCEP, Decision No.05-0834.

²⁸ Source: Determination of ICP-ANACOM regarding prices of the local loop unbundling to enter in force as from 01.01.2006.

²⁹ [§<].

Modification of asset lives

377. As previously indicated, the Authority has serious concerns over the asset lives used by Batelco in its regulatory accounts. As shown in the table below, the asset lives used by Batelco for ducts, distribution points, and poles are significantly lower than the asset lives used in a number of countries, including Ireland, France and the UK.

Assets		Bahrain	Ireland	France	UK	TRA fair and reasonable
Cabinet	Years	20	20	25	20	20
Duct	Years	20	40	40	40	40
Distribution Point (DP)	Years	10	20	25	20	20
Poles	Years	10	30			30
Primary Cable	Years	20	20	25	20	20
Secondary Cable - underground	Years	20	20	25	20	20
Secondary Cable - overhead	Years	20	20	25	20	20

Table 14: Benchmark of equipment's asset lives³⁰

378. The Authority considers that the asset lives used for those assets should be modified to better reflect the expected useful lives of these assets and to bring Batelco's regulatory asset lives in line with best practice. In addition to that, and as most of the network infrastructure is located underground, there is very little effect of high temperature and humidity on the network infrastructure in the Kingdom of Bahrain.

379. For the purposes of setting the UMPL rental charge, the Authority has therefore made the following modifications to the asset lives of three assets:

- ducts from 20 to 40 years;
- distribution points from 10 to 20 years; and
- poles from 10 to 30 years.
- Depreciation charges for each category of asset are then adjusted by multiplying the un-adjusted depreciation charges by the ratio of existing asset life over revised asset life.

380. The relevant depreciations based on modified asset lives amount to approximately BD [X] in 2008.

[X]

Table 15: Adjusted depreciation calculation

³⁰ Source: *Bahrain* - Batelco
Ireland – Review of the regulatory asset lives of Eircom Limited, 17 February 2009
France – ARCEP, Decision No. 05-0834
United Kingdom – OFCOM, Valuing copper access Part 2 proposals, 16 March 2005

381. Having corrected depreciation charges, it is necessary to adjust the amount of un-attributable costs on a pro-rata basis as under the Equal Proportionate Mark-up (“**EPMU**”) approach, less cost should be allocated to AN01 and more to other activities.
382. The adjusted un-attributable cost allocated to AN01 equal to BD [X]. This figure was derived as follows:
- Total un-attributable costs in 2008 Batelco’s regulated accounts are equal to BD [X] M³¹.
 - Following the change in asset lives, the total costs, excluding un-attributable costs and return on capital in Batelco’s regulatory accounts, have decreased from BD [X]M to BD [X]M. As a consequence, the ratio un-attributable costs/other costs have increased from 10.08% ([X]) to [X]% ([X]).
 - The adjusted un-attributable costs allocated to AN01 are calculated by multiplying [X]% to the sum of operating costs and depreciation (excluding the return on capital as the un-attributable costs are allocated to elements on the basis of OPEX, depreciation and support cost) of AN01 (i.e. BD [X]M).
383. After removing irrelevant cost, adjusting asset lives and applying the relevant cost of capital, the Authority concludes that the fair and reasonable UMPL Rental charge is BD 4.070 /month/line.

[X]

Table 16: ULMP Rental charge calculation

384. Based on the detailed analysis of the composition of the UMPL rental charge proposed by Batelco, the costing information based on Batelco’s 2008 regulatory accounts and the principle and methodologies which underpin the proposed charges by Batelco as they relate to LLU, the Authority concludes for the reasons set out above, that the UMPL monthly rental charge proposed by Batelco is neither fair nor reasonable.
385. As explained above, the Authority considers that the UMPL monthly rental charge should:
- include only relevant costs and hence irrelevant cost should be removed;
 - reflect the 9.5% cost of capital; and
 - be based on adjusted asset lives for ducts, distribution points and poles.
386. The Authority therefore concludes that the fair and reasonable UMPL Rental charge is BD 4.070 month/line and not BD 6.090 as proposed by Batelco.

³¹ Source: Batelco’s email 20 July 2010 and 3 August 2010, reference GCL/312/10.

Benchmarking

387. Article 7 of the Access Order 1 of 2009 indicated that benchmarks, in addition to Batelco’s costing information will be taken into consideration in assessing whether Batelco’s proposed UMPL rental charge is fair and reasonable. Benchmarks are used more as the form of sanity check to inform the range of what may constitute appropriate rates rather than to set UMPL rental charge.

388. LLU is a well standardized wholesale product widely available. This facilitates benchmarking. Two approaches to benchmarking are presented. The first approach is based on European countries. The second one is a peer group analysis of the most comparable countries to the Kingdom of Bahrain in terms of costs drivers.

389. The first approach shows that the average LLU rental charge in the 27 countries member of the European Union is €9.2 /month/line which is around BD 4.6 /month/line³². Most European countries have a long experience of LLU. In Europe, LLU rates are cost oriented and publicly available.

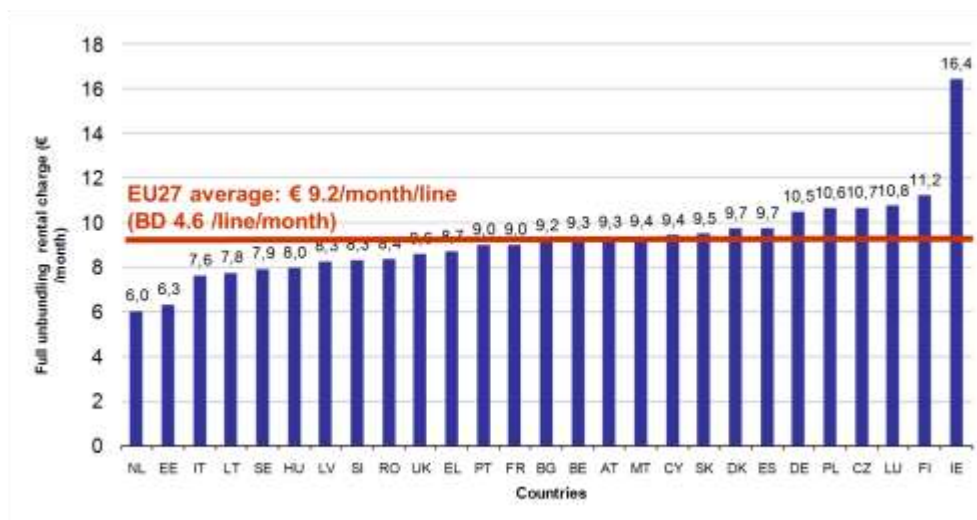


Chart 8: LLU Rental charge in EU27 in 2009 – Rate of the 28 April 2010³³

390. The second approach consists of identifying within this broad group of countries the ones which are most comparable to the Kingdom of Bahrain and to then make further adjustments for comparability purposes. In the group of countries defined above, it could be argued that many of them are not close comparators to the Kingdom of Bahrain (i.e. in terms of size) and should therefore not be included in the benchmark. On this basis the Authority has defined a peer group of countries with a broadly similar

³² Based on average of 6 months rate of BD 0.5 for € 1.

³³ Source: European Commission, 15th Implementation Report, 25 May 2010 (prices in Ireland have decreased to €12.4 /month in the first quarter 2010).



ANNEX A: LEGAL REASONING

population and number of fixed lines and where LLU prices are cost based. The resulting peer group include Luxembourg, Malta, Cyprus and Estonia.

391. The average LLU rate of the peer group is BD 4.160 per month. Given the cost structure of the local loop, there are three broad cost drivers which may explain cross-country difference in LLU cost and hence may justify different LLU rates:

- a. Households density;
- b. Civil work cost; and
- c. Penetration rate.

392. The table below sets out the value of each indicator, or proxy indicator, for the Kingdom of Bahrain and the countries included in the peer group

		Luxembourg	Malta	Cyprus	Bahrain	Estonia
Minimum wage	\$	2,172	840	1,112	264	368
Median salary	\$	3,494	1,096	1,857		609
Average density	Hbts/km ²	190	1,282	86	1,417	29
LLU rental fee	EUR	10.75	9.36	9.43	5	6.33
Penetration rate (households)	%	115%	132%	143%	134%	70%

Table 17: Cost drivers for LLU cost³⁴

393. There are two ways to take into account differences in underlying cost drivers. The first one is to consider that Malta is the closest comparator to the Kingdom of Bahrain in terms of population, number of fixed lines, density and wages (see Table 17) and hence to take the view that the LLU rate of BD 4.700/month/line constitutes the relevant benchmark.

394. The second one is to adjust the benchmarks correcting for differences in:

- Wage: Considering that civil works represent approximately 60% of copper local loop access costs, the rental charge has been adjusted with the

³⁴ Source:
<https://www.cia.gov>
<http://www.eurostat.com>
http://www.fedee.com/search.php?site=0&path=&template_demo=&result_page=search.php&query_string=median+wage
<http://www.eurofound.europa.eu/eiro/2004/05/inbrief/cy0405101n.htm>
http://www.twocircles.net/2008feb07/india_fixes_minimum_salary_unskilled_workers_bahrain.html
<http://www.tra.org.bh/en/pdf/TRABahrain-%20presentationtoHHCPBelgium.pdf>
<http://www.arabianbusiness.com/512344-bahrain-witnesses-population-explosion>
http://www.eau.ee/~aps/pdf/20051/zeiger_ik.pdf
<http://www.oanda.com/convert/classic>



ANNEX A: LEGAL REASONING

difference in minimum or median wages between each of the country considered and the Kingdom of Bahrain³⁵; and

- Fixed line penetration. Benchmarks have been adjusted for difference in penetration rates as the lower the fixed line penetration rate of the country is, the higher the LLU price should be. As a consequence, the LLU price is adjusted by the ratio of the penetration rate in country X divided by the penetration rate in the Kingdom of Bahrain.

The following diagram illustrates the methodology used to adjust LLU prices in other countries in order to make it comparable with the Kingdom of Bahrain:

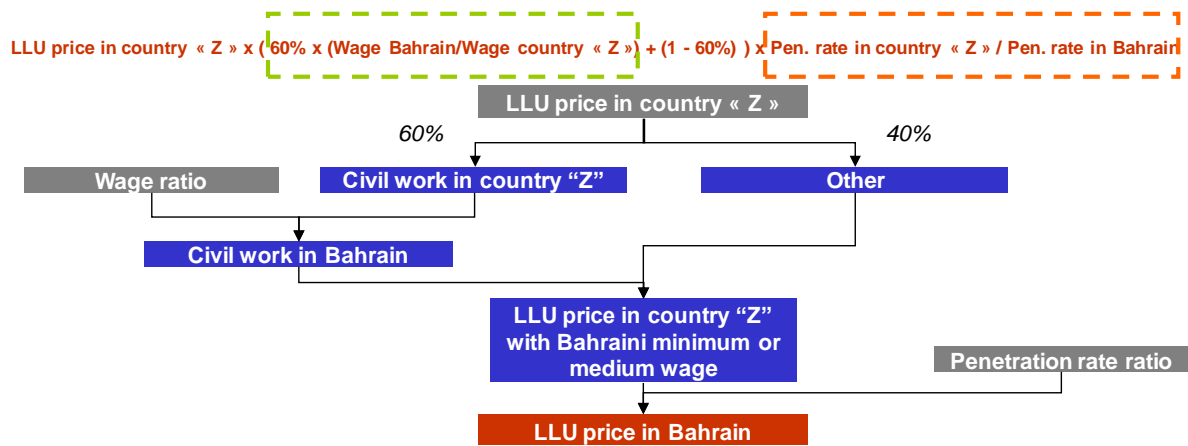


Figure 2: Methodology for adjusting the LLU prices in other countries to be comparable with the Kingdom of Bahrain

395. The average LLU rates based on adjusted benchmarks is BD 2.200/month/line (adjustment based on minimum wage) and BD 2.800/month/line (adjustment based on medium wage) (see Chart 9 below).

³⁵ Civil works can vary significantly between two countries if wages in the two countries are different. Here, the wages of the different countries have been considered. As it is difficult to know exactly the wages of operators' staff in the different countries, medium or minimum wages (as per labour laws) have been used.

LLU Reference Offer Order

ANNEX A: LEGAL REASONING

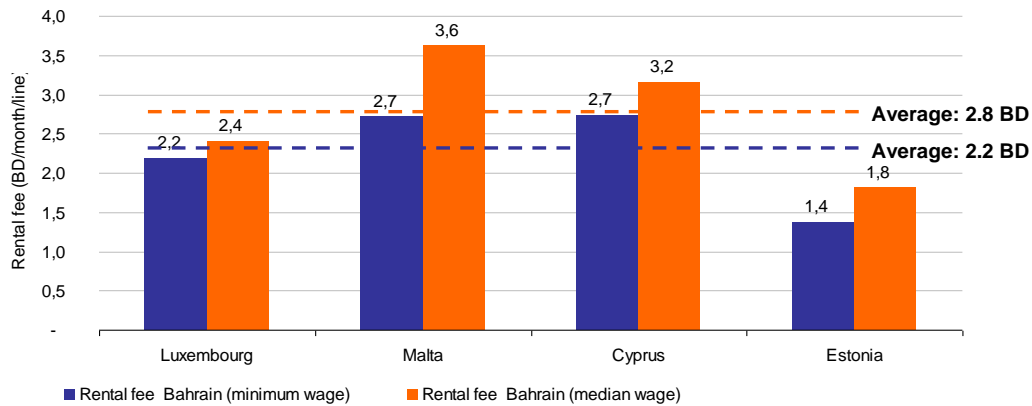


Chart 9: Adjusted LLU Rental charge in benchmarked smaller states

396. The results of the benchmarking analysis is summarized as follows:

- a. EU 27 European Benchmark: BD 4.600/month/line
- b. Peer group analysis:
 - i. Average for the group: BD 4.200/month/line
 - ii. Closest Comparator: BD 4.700/month/line
 - iii. Adjusted benchmark for differences in minimum wages and penetration rates: BD 2.200/month/line
 - iv. Adjusted benchmark for differences in medium wages and penetration rates: BD 2.800/month/line

397. Combined together these various benchmarks suggest a LLU rate of approximately BD 4.000/month/line. This is consistent with the cost based LLU rates determined by the Authority in paragraph 386 above.

Conclusion

398. Having considered all these elements, the Authority considers that BD 4.070 represents a fair and reasonable LLU monthly rental charge.

LLU implementation costs

399. To implement LLU, Batelco would have to incur certain costs, such as system set-up costs and site preparation costs for Field Tests. Despite several requests from the Authority (latest of which was an email from Chris Evans to Adel Darwish on 31 August 2010, Subject *RE: LLU - IT Systems and Processes*), Batelco has not provided any

detailed breakdown of the expected LLU implementation costs, including cost related to the field test, which the Authority could review.

400. In order to provide appropriate incentives for cost minimisation and to facilitate the development of competition, the Authority considers that these costs should be recovered through the interconnect specific charge. In the Draft Order issued on 23 September 2010³⁶, the Authority has proposed to set the ISC at BD 0.0007 and has concluded that at this level, the ISC leaves substantial head-room for Batelco to recover the efficiently incurred cost of wholesale activities and in particular LLU implementation costs.

Ancillary Services

401. In accordance with paragraph 4 of Annex A of Access Order 1 of 2009 Batelco must provide the following LLU ancillary services with the corresponding charges to OLOs. This section reviews the charges proposed by Batelco for the following ancillary services:

- a. the UMP Backhaul Service ;
- b. Service Node facility and Management ;
- c. Blocks and Tie Cables ; and
- d. UMP Specific Information.

UMP Backhaul Service Charges

402. The charges applicable to the UMP Backhaul Service will be equal to the charges applicable for CAT/LLCO. The CAT/LLCO charges are reviewed in a separate Order.

Service Node Facility and Management (SNFM) Charges

403. The SNFM service gives the OLO access to a space at a Batelco site to accommodate the equipment necessary for the provision of services over the copper local loop.

SNFM Order and Cessation Charges

404. The SNFM Order/Cessation activity consists of the provisioning/cessation of an SNFM space by Batelco in its sites for the OLO once an SNFM Service Request/SNFM Cease

³⁶ A Draft Order issued by the Telecommunications Regulatory Authority ("TRA") on the Reference Interconnection Offer and Reference Access Offer of the Bahrain Telecommunications Company B.S.C ("Batelco") – reference (MCD/09/10/089)

Request has been sent to Batelco. Both services have been evaluated at BD 19.250 per connection/cessation by Batelco.

405. To justify these charges Batelco provided details of the methodology and parameters used to calculate these charges.
406. Batelco has split the SNFM Order and Cessation Charge into the different tasks to be completed by Batelco's administrative personnel of grade G1. These tasks are the same as for the administrative tasks for UMPL connection (see paragraph 323 above).
407. According to Batelco, the provisioning process for an SNFM Order includes five tasks:
- validate and check the order;
 - send an accept/reject letter providing the reason;
 - raise an Order in Service Provisioning System;
 - daily check of pending orders and follow-ups; and
 - send an on-service confirmation.
408. Batelco has calculated the cost of each task. For that purpose, Batelco has multiplied its estimate of the duration of each task by the cost per minute of the personnel in charge of its completion. The duration of each task and the cost per minute are the same as for UMP connection administrative tasks (see paragraph 323 above).

[X]

Table 18: Times related to the Provisioning/Cessation process for SNFM Order

409. For the same reasons outlined in paragraphs 331 and 332 above, the proposed charges are neither fair nor reasonable. The Authority considers that the SNFM Order and Cessation Charges should be set at BD 13.650 and not BD 19.250 as proposed by Batelco.

License fee

410. The license fee enables the OLO to use a portion of space in a BSN's floor/ground. Three different types of space are available:³⁷
- Co-mingling*: co-location space where the OLO's equipment is installed in a BSN in an area which may also house Batelco's or an OLO's equipment un-partitioned from the OLO's equipment and from each other;
 - Dedicated OLO Space*: a room or caged area within a BSN where an OLO has a Licensed Floor Area;

³⁷ For more details regarding the different types of collocation, please refer to Schedule B of Access Order No. 1 of 2009, p 30-31.

ANNEX A: LEGAL REASONING

- c. *Licensed Shelter space*: a ground area or areas within the perimeters of but not inside a BSN occupied by an OLO.
411. Batelco submitted the following charges for these services:
- a. BD 350.000 per rack footprint and per month for Co-mingling ;
 - b. BD 1,050.000 for the first rack footprint per month and BD 350.000 for each rack footprint thereafter per month for Dedicated OLO Space ;
 - c. BD 25.000 per square meter and per month for Licensed Shelter Space.
412. To justify these charges, Batelco provided details on the methodology and parameters used to calculate these charges.
413. For Co-mingling, Batelco proposes to base the tariff on the current retail price of its Data Centre service which is BD 58.000 per tile. Batelco considers that 6 tiles are necessary for a single rack, as for the comingling option in the Data Centre service:
- a. 2 tiles for the actual ETSI size rack ;
 - b. 4 tiles, 2 in front and 2 in the back for air intakes.
414. Batelco provided the following diagram illustrating the use of tiles for 1 ETSI rack:

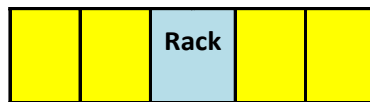


Chart 10: Number of tiles needed for a co-mingled rack

415. For the Dedicated OLO Space, Batelco proposes to base the tariff on the current retail price of its Data Centre service which is BD 58.000 per tile. Batelco considers that 3x6 tiles are necessary for the first rack:
- a. 2 tiles for the rack,
 - b. 2 tiles in front of the rack and behind the rack (which makes in total, 6 tiles as for the co-mingling configuration);
 - c. 2x6 tiles to add spaces on both sides of the ETSI rack (left and right in the following schematic):

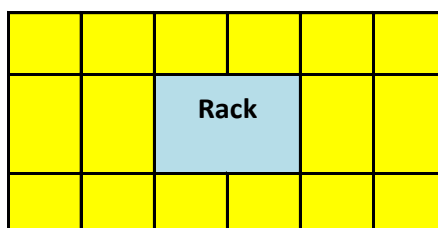


Chart 11: Number of tiles needed for 1 rack in a dedicated space

416. The supplementary racks are priced according to the same rules as the Co-mingling Licensed Floor Area.

417. Batelco provided the following diagram to illustrate the number of tiles required for 3 ETSI racks:

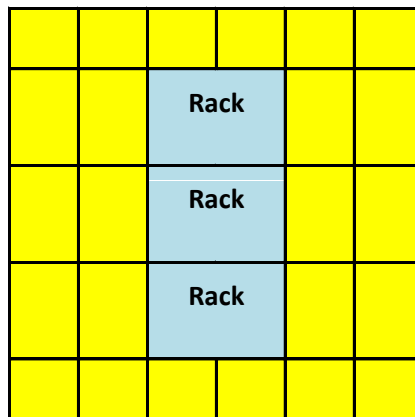


Chart 12: Number of tiles needed for 3 racks in a dedicated space

418. For the Licensed Shelter Space, the price proposed by Batelco is based on the current RO price (Schedule 3, item 2-3.7: “Site Space Charge (Facility other than Ducts) - including power supply limited to 10 kw/month”).

419. The Authority considers that the approach proposed by Batelco to calculate the amount of space based on the number of tiles is appropriate. The Authority considers that the proposed charge based on Batelco’s retail price for its Data Centre service is fair and reasonable. Therefore, the Authority approves the proposed BD 350.000 charge per rack and per month for Co-mingling. The Authority also approves the charge for Dedicated OLO Space which is set at BD 1050.000 per month for the first rack and BD 350.000 per month for each supplementary rack.

420. The proposed charge by Batelco for Licensed Shelter Space is based on the previously approved RO price list Schedule 3 (2-3.7 Site Space Charge (Facility other than Ducts) – including power supply limited to 10 kw/month) which is BD 25.000 per square meter.

Security ID Card Charge

421. The Security ID card is provided by Batelco to enable the OLO's staff and contractors to enter the Batelco sites. This service is charged BD 2.000 per ID card per month.
422. This charge is consistent with the previously approved RO price listed in Schedule 3 of the Batelco RO (2-3.11).
423. The Authority considers that this charge is fair and reasonable.

BSN site access Charges

424. The BSN site access enables the OLO to have an escorted access to Batelco's sites. Batelco proposes differentiated charges depending on whether access is during working hours, and whether the visit is planned:
- escorted planned normal working hours: BD 21.000;
 - escorted planned outside working hours: BD 31.000;
 - escorted unplanned normal working hours: BD 62.000;
 - escorted unplanned outside working hours: BD 93.000.
425. The price of a BSN site access - escorted planned normal working hours is consistent with the cost of a personnel of grade G1. Therefore the Authority considers that the price for escorted planned access during normal working hours proposed by Batelco is fair and reasonable.
426. To assess the charges for outside working hours and unplanned access, the Authority has considered publicly available benchmarks of mark-ups. In the United Kingdom³⁸ and in Ireland³⁹, the pricing of escorted access follows the same structure as the one proposed by Batelco. In France, the RO⁴⁰ does not provide the same pricing structure as the OLO pays a flat rate for each service node. In Italy, the price list for service node access is not publicly available.
427. As the table below shows, the proposed mark-ups for unplanned site access and outside normal working hours access are out of step with international practice, especially for unplanned access.

³⁸ Escorted Access – Accommodation price list for LLU – Openreach - <http://www.openreach.co.uk/orpg/pricing/loadProductPriceDetails.do?data=kj7hq4nB6aW1RBP8FRPqwr%2FuVhXjMR5hQz3DdrCHJqBvRWsgMC%2F4dy9qJJFTkna2>

³⁹ Eircom Access Reference Offer Price List version 4.6 - http://www.eircomwholesale.ie/dynamic/pdf/ARO%20Price%20List%20V%204.6_Unmarked.pdf

⁴⁰ Offre de référence d'accès à la boucle locale de France Télécom 19/02/2010 - http://www.orange.com/fr_FR/groupe/reseau/documentation/att00005989/Offre_de_degroupe_19_fevrier_2010_publiee.pdf



ANNEX A: LEGAL REASONING

	Bahrain	UK	Ireland	Benchmark average
escorted planned normal working hours	0.0%	0.0%	0.0%	0.0%
escorted planned outside working hours	47.6%	26.2%	50.0%	38.1%
escorted unplanned normal working hours	195.2%	49.7%	40.4%	45.0%
escorted unplanned outside working hours	342.9%	88.3%	101.0%	94.7%

Table 19: Price difference with the planned access during working hours

428. The Authority considers that the mark-up for unplanned and outside normal working hours access should be based on the average of the benchmark:

	Benchmark average	New price
escorted planned normal working hours	0.0%	21
escorted planned outside working hours	38.1%	29
escorted unplanned normal working hours	45.0%	30
escorted unplanned outside working hours	94.7%	41

Table 20: New prices in line with international levels

429. To summarize, the Authority determined and orders the charges for BSN site access as follows:

- a. escorted planned normal working hours: BD 21.000 per hour;
- b. escorted planned outside working hours: BD 29.000 per hour;
- c. escorted unplanned normal working hours: BD 30.000 per hour;
- d. escorted unplanned outside working hours: BD 41.000 per hour.

Reject, Reversal, Withdrawal Charge

430. This activity consists of the rejection of an incomplete or incorrect or illegible Order sent by the OLO to Batelco. If this happens, Batelco proposes to charge the OLO BD 7.000.

431. For the same reason outlined above in Clause d. (paragraphs 346 to 349), the Reject Reversal and Withdrawal charge is estimated at BD 5.000 instead of BD 7.000.

Additional Power Charge

432. The Additional Power Charge consists of the provision of additional power to the OLO for its collocated active equipment. Batelco's proposed charge for this service is BD 70.000 per kW and per year.

433. Batelco indicated that this price is in line with its retail Data Centre offer.

434. The Authority hereby approves the additional power charge level of BD 70.000 per kW and per year.

f. Blocks and Tie Cables Charges

435. The Blocks and Tie Cables service enables the connection between the MDF and the HDF, to which the OLO connects its equipment.

HDF Block Rental

436. Batelco proposes to use blocks of 600 pairs at the HDF. The block is the interface between the tie cable and the OLO equipment. Batelco proposes a price of BD 48.000 per month for each HDF block of 600 pairs.

437. To justify the proposed charge, Batelco has provided a detailed calculation. Batelco indicates that the investment cost for a 600 pair HDF block is BD [X] which is then divided by 5 (the estimate of the useful life of the asset) to derive an annual depreciation charge of BD [X]. Batelco then applies a [X]% mark-up to the depreciated charge, i.e. BD [X] per annum. To calculate the cost of capital, Batelco uses a rate of 12.2% on the investment cost. This calculation results in a final cost of BD 573.000 per annum or BD 48.000 per month for a 600 pair HDF block.

[X]

Table 21: Batelco's annual cost calculation for a 600 pairs HDF block

438. Having reviewed the quotes of HDF blocks provided by Batelco, the Authority is of the view that the investment cost submitted by Batelco appears fair and reasonable. However, Batelco proposes a price for a minimum of 600 pairs. The Authority is of the view that the proposed price should be for a 100 pairs to reduce barriers to entry for OLOs. The Authority also notes that 100 pairs HDF were provided for the LLU Field Tests. As a consequence, the Authority is of the view that the cost for 100 pairs should be calculated, as for the tie cables.

439. Batelco uses a mark-up of [X]% on the annual depreciated charge of the investment to calculate OPEX costs. This level corresponds to the OPEX of an old network with low depreciation, therefore generating a large amount of OPEX as a percentage of depreciation. As the HDF blocks are newly bought assets, the amount of OPEX should be much lower. The Authority considers that the level proposed by Batelco is neither fair nor reasonable.

ANNEX A: LEGAL REASONING

440. In France, ARCEP made a decision⁴¹ on the price of ADSL filters in the LLU RO and set the value of OPEX at 0.5% of the investment costs for all network equipment. This rate is more relevant as it corresponds to the OPEX rate for a new and passive asset, installed indoor. The corresponding ratio in Batelco’s calculation is 36%.

441. Taking into account these modifications, the Authority derives a fair and reasonable HDF block price:

- a. The unit cost of a 100 pairs HDF is BD [200.000] (including material and installation) or BD [X] per year.
- b. The annual OPEX shall be 0.5% of the investment (i.e. BD [X]) or BD [1.000] per year.
- c. The cost of capital shall be 9.5% of the unit cost (i.e. BD [X]) or BD [X] per year.

Item	Annual cost
Depreciation	BD 40
OPEX	BD 1
Cost of Capital	BD 19
Total	BD 60

Table 22: The Authority’s annual cost calculation for a 100 pairs HDF block

442. The Authority set the fair and reasonable HDF Rental Charge at BD 5.000 per month (for 100 pairs) instead of BD 48.000 (for 600 pairs).

Tie Cable Joint & Cease Charges

443. Batelco proposed a tie cable joint and a cease charge of BD 841.000 per 100 pair tie cable. This charge corresponds to the work of two G1 graded technicians during 2 working days of 8 hours.

444. Based on the expertise of the consultant assisting the Authority with LLU, the Authority believes that the overall duration proposed by Batelco is excessive. The Authority considers that the jointing of a 120 pairs tie cable should take no more than 6 hours:

- a. 2 man-hours to join the tie cables to the HDF block;
- b. 2 man-hours to install the tie cables in the trays; and
- c. 2 man-hours to join the tie cables to the MDF block.

⁴¹ ARCEP – « Décision n° 02-278 de l’Autorité de régulation des télécommunications en date du 28 mars 2002 se prononçant sur le différend entre les sociétés LDCOM et France Télécom relatif à certaines conditions techniques et tarifaires de la convention d’accès à la boucle locale » - 28 March 2002

ANNEX A: LEGAL REASONING

445. Using the Batelco rate for a G1 graded technician, the jointing cost is BD 126.000 (i.e. BD [X]). This cost is conservative, as Batelco uses 100 pair tie cables instead of 120 pairs tie cables.

446. The Authority set Tie Cable Joint and Cease Charge at BD 126.000 instead of the proposed BD 841.000.

Tie Cable rental charge

447. The tie cable connects the MDF to the HDF. The tie cable rental charge proposed by Batelco is BD 37.000 per month and per 100 pair tie cable.

Item	Annual cost
Depreciation	BD 900
OPEX	BD 701
Cost of Capital	BD 1,098
Total	BD 2,699

Table 23: Batelco's annual cost calculation for a 600 pairs Tie Cable

448. To calculate this charge, Batelco has made the same calculation as for the HDF blocks. However the calculation takes into account a 100 pair tie cable - and not a 600 pair tie cable. As the same methodology as for the HDF block is used, the same remarks apply to the tie cables rental charge.

449. Taking into account these modifications, the Authority derives a fair and reasonable tie cable rental charge:

- The unit cost of a 600 pair tie cable is BD [X] (including material and installation). The investment cost for 100 pairs is BD [X] or BD [X] per year (Over a 10 year asset life span).
- The annual OPEX is set at 0.5% of the investment cost, i.e. BD [X] per year.
- The cost of capital used is 9.5%, i.e. BD [X].

Item	Annual cost
Depreciation	BD 150
OPEX	BD 8
Cost of Capital	BD 143
Total	BD 300

Table 24: The Authority's annual cost calculation for a 100 pairs Tie Cable

450. The Authority is of the view that a fair and reasonable Tie cable rental Charge is BD 25.000 per month instead of the proposed BD 37.000.

g. UMP Specific Information charges

451. The UMP Specific Information service enables OLOs to have access to information necessary for the operation of LLU.

Specific information request

452. The Specific Information Request enables an OLO to obtain the following data:

- a. The number of active lines per Service Node;
- b. The number of non-active lines per Service Node;
- c. The geographical location of the BSNs, a boundary map of BSNs and the list of contiguous address blocks and a helpdesk line to answer questions regarding contiguous addresses;
- d. The average length of the UMPLs (in meters) per Service Node;
- e. Power availability at each BSN for the SNFM Service;
- f. BSN space availability for the SNFM Service;
- g. UMPL entry points (being the first joint box nearest to the BSN) and duct capacity availability;
- h. UMPL characteristics (i.e. diameter, results from any quality tests solely on the UMPL itself, technical interference, control and - where not comprised in the ANFP - spectral management plan information); and
- i. Results of any xDSL test not comprising Batelco's centralised line testing qualification system ("**CLTQS**") information.

453. The proposed charge for this service is BD 336.000 per BSN and per order. This corresponds to 2 working days of G1 graded technicians.

454. Having regards to the amount of information that needs to be collected, the Authority considers that the charge proposed by Batelco is fair and reasonable.

Premium Help Desk line

455. Batelco proposes a Premium Help Desk line to OLOs in relation to the provision of Specific Information.

456. The proposed charge for this service is priced at BD 0.350 per minute. This corresponds to the cost of a G1 graded technician without premium.



ANNEX A: LEGAL REASONING

457. The Authority considers that this charge proposed by Batelco is not fair nor reasonable.

Conclusion

458. The following table gives for each chargeable activity the charge proposed by Batelco and the charge ordered by the Authority:

	Charge proposed by Batelco	Fair and reasonable and non-discriminatory charge ordered by the Authority	Charge basis	Reasons for change
UMPL Connection and Cessation Charges	BD 41.350	BD 25.550	Per event	Reduction of the tasks durations
UMPL Survey Charge	BD 300	Deleted	Per event	Not Justified
UMPL Line Continuity Charge	BD 22.100	BD 11.900	Per event	Reduction of the tasks durations
Reject, Reversal, Withdrawal Charge	BD 7	BD 5	Per event	Reduction of the tasks durations
UMPL Rental	BD 6.090	BD 4.090	Per line per month	FAC accounts review
UMPL Rental (premium repair)	UMPL Rental + 60%	UMPL Rental + 60%	Per line per month	UMPL Rental (premium repair)
SNFM Order and Cessation Charges	BD 19.250	BD 13.650	Per event	Reduction of the tasks durations
License fee – Co-mingling	BD 350	BD 350	Per rack per month	In line
License fee – First Dedicated rack	BD 1050	BD 1050	for the first rack per month	In line
License fee – Supp. Dedicated rack	BD 350	BD 350	for each supp. rack per month	In line

LLU Reference Offer Order



ANNEX A: LEGAL REASONING

هيئة تنظيم الاتصالات
Telecommunications Regulatory Authority

	Charge proposed by Batelco	Fair and reasonable and non-discriminatory charge ordered by the Authority	Charge basis	Reasons for change
License fee – Shelter	BD 25	BD 25	per square metre per month	In line
Security ID Cards Charge	BD 2	BD 2	per ID Card per month	In line
escorted planned normal working hours	BD 21	BD 21	per hour	In line
escorted planned outside working hours	BD 31	BD 29	per hour	Reduction of the premium for outside working hours
escorted unplanned normal working hours	BD 62	BD 30	per hour	Reduction of the premium for unplanned access
escorted unplanned outside working hours	BD 93	BD 41	per hour	Reduction of the premium for outside working hours and for unplanned access
Reject, Reversal, Withdrawal Charge	BD 7	BD 5	per event	Reduction of the tasks durations
Additional Power Charge	BD 70	BD 70	per kW and per year	In line
HDF Block Rental	BD 48	BD 5	per month	
Tie Cable Joint & Cease Charge	BD 841	BD 126	per event	Reduction of the tasks durations
Tie Cable rental charge	BD 37	BD 25	per cable per month	



ANNEX A: LEGAL REASONING

	Charge proposed by Batelco	Fair and reasonable and non-discriminatory charge ordered by the Authority	Charge basis	Reasons for change
Tie Cable Duct charge (for Distant OLO Space only)	Time and material basis (as specified in Schedule 3 Annex 1) + monthly duct rental charge Schedule 3 2-3.9	Time and material basis (as specified in Schedule 3 Annex 1) + monthly duct rental charge Schedule 3 2-3.9	Duct rental plus initial cost of work	In line
Specific information request	BD 336	BD 336	per event	In line
Premium Help Desk line	BD 0.350	Free	per minute	
Service Node make ready for LLU	Time an Material	Time and Material	Per Service Node	
Wrongful Repair Charge	Time and material basis (as specified in Schedule 3 Annex 1)	Time and material basis (as specified in Schedule 3 Annex 1)	Per wrongful repair request	

Summary of Batelco's response to "SECTION 2: LEGAL BASIS AND REASONING FOR PRICE TERMS"

UMP monthly rental charge calculation

459. At paragraph 12 of its response, Batelco set out its concerns with the adjustments made by the Authority to the UMP monthly rental charge. It considers those adjustments unreasonable. Batelco referred in particular to the following adjustments :

- a. the removal of voluntary early retirement payments;
- b. the removal of unattributable costs related to those items ; and
- c. the application of the 2009 WACC to 2008 cost.

460. Batelco included in its submission as Annex B a report prepared by Ernst & Young⁴² (“**Batelco’s Consultant**”). The various comments raised in Batelco’s submission are summarised below.

Removal of voluntary early retirement payments (paragraph 10 of Batelco’s response and section 2.2 of Annex B)

461. In relation to the removal of voluntary early retirement payments, Batelco is of the view that this may lead to discriminatory effects on Batelco’s retail business since they will have to support these charges.

462. Batelco’s Consultants refers to the example of Ofgem in the UK which has excluded early leaver costs⁴³.

463. Batelco’s Consultants observe that the exclusion of such costs is in line with the approach adopted by other regulators. However they also suggest that there “*may be legitimate reasons*” for the inclusion of these costs in the cost stack for the UMP monthly rental charge:

- a. Batelco’s Consultants are of the view that these costs can be considered as forward-looking costs since they can be seen as an investment made by Batelco to improve its efficiency and to reduce future labour costs. Batelco’s Consultants add that “*excluding all early retirement costs from the prices of Batelco’s regulated service, whilst passing through all future cost savings to OLOs, could result in inefficient wholesale charges*”.
- b. Batelco’s Consultants also consider that these costs “*may be thought of as efficient, in the sense that they allow for provision of UMPL services at lower cost than would otherwise be the case*”, i.e. that these costs are efficient since the UMP service costs would be even higher without voluntary early retirement plans. Batelco’s Consultants note that Article 57 of the Telecommunications Law does not formally specify that the UMP monthly rental charge should be efficient (footnote 7 in Annex B).

Removal of unattributable costs (section 10 of Batelco’s response and section 2.3 in Annex B)

464. Batelco explains that the removal of unattributable cost related to irrelevant items sets a precedent for cost recovery and refers to previously approved APMs where Batelco claim that the Authority agreed that when unattributable costs are lower than 10%, they were accepted.

465. Batelco’s Consultants also state that the adjustment proposed by the Authority appears to be in line with the methodology set out in the APM which provides that unattributable

⁴² Annex B of Batelco’s Response to the Authority’s Draft Order, “*Comments on TRA’s treatment of UMPL rental charge*”, 14 December 2010, Ernst & Young.

⁴³ Ofgem, Electricity Distribution Price Control Review: Final Proposals, paragraph 8.17.

costs must be allocated using the EPMU approach. Batelco's Consultants conclude that the Authority's adjustment "*would appear reasonable*".

466. Batelco's Consultants also state that unattributable costs which are not recovered by the UMP monthly rental charge would have to be recovered through the charges of other services.

Application of the 2009 WACC to 2008 costs (section 10 of Batelco's response and section 2.4 in Annex B)

467. Batelco argues that the application of the 2009 WACC to 2008 costs is inconsistent with the Authority's previous position related to the application of the WACC.

468. Batelco's Consultants disagree with the Authority's approach related to the application of the WACC because it raises an inconsistency as the 2009 WACC is applied to the 2008 cost as contained in the 2008 regulated accounts.

469. Batelco's Consultants state that the Authority "*is correct to suggest that the WACC measured in 2009 is more likely than the 2005 estimate to be representative of the cost of capital that will apply from 2010 onwards*" because it is the most up-to-date information.

470. However, Batelco's Consultants consider that the 2009 WACC cannot be used with 2008 costs because the required rate of return on investment for investors in a given year is driven by the cost structure in that particular year.

471. Batelco's Consultants also believe that operating costs have changed from 2008 to 2009 in the same way that the WACC can be expected to change. Batelco's Consultants are of the view that adjustments should be considered for other costs such as operating costs, for which, for example, wage inflation should be applied. In relation to wage inflation, Batelco's Consultants consider that a 4.1% increase in the cost stack of the UMP monthly rental charge should be applied.

The Authority's benchmarking analysis (section 2.5 in Annex B of Batelco's Submission)

472. Batelco's Consultants disagree with the Authority's UMP monthly rental charge benchmarking analysis and consider that it may not constitute a robust cross check on UMPL charges in the Kingdom of Bahrain.

473. Batelco's Consultants' comments focus on two areas:

- a. Selection and composition of the sample; and
- b. Cost driver adjustments.

a. Selection and composition of sample

474. Batelco's Consultants argue that the Authority's benchmark based on the 2009 UMP monthly rental charges in European countries is not applicable to the Kingdom of Bahrain as these countries, as of the time of the benchmark, were at a different stage of LLU development compared to the Kingdom of Bahrain (Paragraph 2.5.1 of Annex B). Therefore, Batelco's Consultants are of the view that the UMPL monthly rental charges taken into account should be those applied at an earlier stage of LLU market development more comparable to the current stage in the Kingdom of Bahrain, i.e. in 2005 for European countries and not in 2009.
475. Batelco's Consultants show that UMPL rental charges have fallen: (a) by 15% between 2005 and 2009 for EU27 countries; (b) by 25% if the Authority's preferred peer group was considered;⁴⁴ and (c) by 16% if the Authority's most comparable market was considered.⁴⁵
476. Batelco's Consultants further indicate that "*UMPL rental charges may initially have been high in European markets partly due to regulatory caution and risk-aversion in the context of the launch of a new product. This may not be applicable in the Bahraini market, since the TRA could draw upon European experience of UMPL services, thereby obviating the need for caution in setting UMPL rental charges*". At the same time, Batelco's Consultants indicate that there is evidence, such as in the UK, that suggests that UMP monthly rental charges are now increasing.
477. Batelco's Consultants are also of the view that it would be preferable to compare the Kingdom of Bahrain with countries of the region which share a similar geography and climate (Paragraph 2.5.1 in Annex B) as well as with countries where the development of LLU is more comparable.
478. The only example found by Batelco from the region is Turkey where the UMP monthly rental charge is greater than the benchmark of the Authority (38% to 55% greater depending on the benchmark).

b. Cost driver adjustments

479. Batelco's Consultants disagree with the adjustments made by the Authority to the benchmarks for differences in two cost drivers (Paragraph 2.5.2 in Annex B of Batelco's submission). They challenge the adjustment on two grounds:
- a. It is unclear that civil works and fixed line penetration are the only drivers of UMPL costs. Batelco Consultants identified other potential cost drivers including: economies of scale (due to the size of the Kingdom of Bahrain); cost of capital; level of urbanisation and population density; network modernisation (NGN); quality of service; and demand characteristics.

⁴⁴ The Authority's peer group includes Malta, Cyprus, Estonia and Luxembourg.

⁴⁵ The most comparable country is Malta.

- b. It is unclear why one would expect a negative relationship between fixed line penetration and UMPL rental charges. Batelco's Consultants provided data from EU countries that show a positive correlation between fixed line penetration and UMPL rental.

The recovery of implementation costs

480. Batelco explains that it does not support the recovery of access product costs from interconnection services and considers that interconnection specific costs have not been fully assessed by the Authority and Batelco.
481. Batelco's Consultant presented a report relating to the ISC (Annex C of the Batelco Submission).

Effect on Batelco's retail broadband business and application of margin squeeze test based on LLU

482. Batelco disagrees with the Authority regarding the application of a margin squeeze test based on LLU in an *ex ante* context (Paragraph 12 of the general comments in Batelco's submission) and suggests that the conclusion of the test in an *ex ante* context may not be valid or appropriate (Paragraphs 16 to 19 of Batelco's submission).
483. Batelco argues that an *ex ante* margin squeeze analysis is only one of a number of tests and factors that can be applied to assess whether a retail price is "*fair and equitable, non-discriminatory and based on forward looking cost*".
484. Batelco is also of the view that the Authority has only used one test, which is the "*Equally Efficient Operator*", using historic costs, with a package-by-package analysis and wholesale input-by-wholesale input.
485. Batelco believes that the Authority's approach is at the "*entry assistance*" end of the scale while there is a range of possible margin squeeze tests for which there would be no squeeze⁴⁶.
486. Batelco points out that regulators limit the use of margin squeeze tests to *ex post* situations. Batelco adds that the margin squeeze test should not apply since Batelco no longer has a dominant position in the retail broadband market. Batelco quotes the Authority's retail tariff notification guidelines to explain that in the context of a rebalancing plan, "*the no margin squeeze obligation would not be considered to be breached*"⁴⁷.
487. Batelco also notes that the margin squeeze test was successful for its 640k and 1Mbps packages, two packages which represent a large proportion of customers.

⁴⁶ These arguments are developed in point 18 of Batelco's response in (b) and (c).

⁴⁷ These arguments are developed in point 18 of Batelco's response in (d), (e) and (f).

488. Given the current competitive conditions on retail broadband services, Batelco considers that the LLU remedy “*may be used not for broadband services but to supply narrowband domestic leased lines and/or narrowband local tails for IPLCs by OLOs*”.

The Authority’s analysis and conclusion for “SECTION 2: LEGAL BASIS AND REASONING FOR PRICE TERMS”

UMP monthly rental charge calculation

Removal of voluntary early retirement payments

489. With regards to the removal of voluntary early retirement payments, Batelco’s Consultants clearly acknowledge that the exclusion of these costs has been adopted by other regulators and hence that the Authority’s approach is consistent with international practice. Batelco’s Consultants only considers that there “*may be legitimate reasons*” to include these costs. The Authority notes that Batelco’s Consultants are unclear as to whether these costs should be included.
490. The Authority disagrees with Batelco’s Consultants that voluntary early retirement payments can be considered as forward-looking cost. Because they are transitory costs, voluntary early retirement payments cannot be considered as forward-looking costs. They will disappear in the future. The Authority would also like to refer to its Competition Guidelines which indicate that “*forward looking*” means “*based on current circumstances and current views of their likely development*”⁴⁸. The likely development of voluntary early retirement payments is that they will be null in the future as they are transitory charges for Batelco. Thus, in accordance with article 57 of the Telecommunications Law, the Authority has removed these costs.
491. The Authority also notes that an efficient operator would not bear such costs.
492. The Authority therefore concludes that the proposed approach regarding the removal of early retirement payments remains appropriate and that these costs should be excluded from the UMPL rental charge.
493. These costs can be supported by other services of Batelco such as retail services (as this is the case in countries where regulators remove early retirement costs).

⁴⁸ Source: TRA Competition Guidelines, 18February 2010, Paragraph 31.

Removal of unattributable costs

494. The removal of unattributable costs in relation to early retirement costs is deemed “appropriate” and “reasonable” by Batelco’s Consultants. They have also acknowledged that it has been completed in a manner consistent with the APM⁴⁹.
495. The Authority agrees with Batelco’s Consultants that these costs can be recovered from services, as this is the case in other countries where these costs have been removed from wholesale charges.
496. The Authority disagree with Batelco’s argument against the removal of these costs because “the TRA has previously approved APMs and agreed that where un-attributable cost was less than 10% of the total, then it was accepted”. If Batelco’s reasoning was to be accepted then this would mean that whenever unattributable costs remain “low”, it would be acceptable to include them in the relevant cost stack whatever their level. The amount of unattributable costs allocated to AN01 was calculated on the basis of the EPMU. It is therefore entirely appropriate and justified to adjust the amount of unattributable cost based on the same method following the adjustments made to AN01.
497. The Authority remains of the view that the approach taken in the Draft Order is appropriate.

Application of the 2009 WACC to 2008 costs

498. The Authority considers that the comments raised by Batelco and its consultants do not justify a change of position.
499. Batelco’s Consultants recognise that it is preferable to use the more recent cost of capital (and not the 2005 cost of capital) although they argue that it would be preferable to use 2009 costs instead of 2008 costs for consistency reasons and because they expect cost to have increased between 2008 and 2009.
500. As a preliminary comment, the Authority observes that at the time the draft Order was issued only the 2008 regulatory accounts were available. As such, the Authority relied on the most up-to-date information available at that time, i.e. the 2008 cost as contained in the regulatory accounts and the 2009 cost of capital.
501. Further, the claim made by Batelco’s consultants that 2008 cost needs to be adjusted upwards to better approximate current cost is not observed. On 10 February 2011, Batelco submitted its 2009 regulatory accounts. As can be seen from the table below the OPEX and capital employed for AN 01 Access Copper have [X]% and [X]% respectively. Overall the cost of AN 01 has [X]% (by [X]% when applying for both years a WACC of 9.5%). The UMPL rental based on Batelco’s approach [X]. Thus, if anything, it would be reasonable for the Authority to adjust [X] its cost estimate of the loop to better reflect current cost. As can be seen from Table 25,

⁴⁹ “Allocate unattributable costs to all services and products through the network elements and retail activities”
Source: Batelco, APM, Article 3.7 – Step5b- Unattributable support activity costs, November 2009.

502.

503. [REDACTED]

504. Figure 3 and Figure 4 below, the capital employed and OPEX of AN 01 have [REDACTED] since 2004.

[REDACTED]

Table 25: AN 01 Access Copper – 2008-2009 Comparison

[REDACTED]

Figure 3: Breakdown of the copper local loop (AN01) between 2004 and 2009 (Source: Batelco's regulated accounts)

[REDACTED]

Figure 4: Evolution of the Capital employed for the copper local loop (AN01) between 2004 and 2009 (Source: Batelco's regulated accounts)

505. However, considering the time it would take to obtain detailed cost information from Batelco to update the Authority's analysis using 2009 cost and the imperative to launch LLU, the Authority has decided to base the final Order on 2008 cost with the most recent cost of capital figure. This is a conservative decision which is favourable to Batelco.⁵⁰

The Authority's benchmarking analysis

506. The Authority re-emphasizes that the benchmarking analysis of loop rates has not been used to set the UMPL monthly rental charge of BD 4.09. This analysis was used "more as the form of sanity check to inform the range of what may constitute appropriate rates rather than to set UMPL rental charge". (see paragraph 387 above). Batelco's comments are therefore not relevant in the context of this Order.

⁵⁰ In doing so the Authority notes that compared to the Batelco's approach that underpin its proposed BD 6.09 per month, the ordered loop charge based on the Authority's approach is about 30% lower. A difference of a similar magnitude could be expected if the approach set out in this Order was applied to the 2009 cost (i.e. removing irrelevant cost, adjusting unattributable cost and asset lives). The only adjustment that would no longer be necessary would be the adjustment for the 2009 WACC.

507. Notwithstanding the above and for the sake of completeness, the Authority sets out below its view on Batelco's consultants' comments. The Authority is of the view that their analysis does not invalidate the benchmarking analysis of the Authority.

Selection and composition of sample

508. Contrary to the view of Batelco's Consultants, the use of 2005 figures to compute the benchmark analysis is not appropriate. The Authority considers that it is preferable to use more up-to-date information, i.e. 2009 figures, as opposed to 2005 data when more recent information is readily available.

509. The Authority also notes that in 2005 LLU was in its early stages of development in Europe. UMP monthly rental charges were set based on methods which have since been improved to better reflect the cost of local loops. This is reflected in the decrease identified by Batelco's Consultants in loop rates between 2005 and 2009.

510. The Authority notes and agrees with Batelco's Consultants statement that "*UMPL rental charges may initially have been high in European markets partly due to regulatory caution and risk-aversion in the context of the launch of a new product. This may not be applicable in the Bahraini market, since the TRA could draw upon European experience of U MPL services*"⁵¹. This statement provides support for not using 2005 figures and instead using more recent figures as has been done by the Authority. Further in defining the appropriate approach for LLU, the Authority drew extensively on the European experience.

511. While Batelco's Consultants argues that there is evidence to suggest that U MPL costs in European markets may be increasing, the Authority notes that there are examples showing the opposite, such as Ireland where the U MPL rental charge decreased significantly in 2010⁵².

512. The Authority believes that using non-EU countries and in particular countries in the region as suggested by Batelco's Consultants is unlikely to be meaningful since: (a) there are very few countries that have implemented LLU; and (b) there do not appear to be any countries in the region, as suggested by Batelco, where LLU has been implemented successfully. This may be due to a number of factors, including the pricing of local loop. In Turkey, the only example referred to by Batelco's Consultants, LLU is very rarely utilised by operators⁵³.

⁵¹ Annex B of Batelco's Submission, footnote number 26, page 9.

⁵² According to the EC 15th implementation report, the monthly rental charge in Ireland decreased from €16.48 to €12.18, i.e. by -26% between 2008 and 2009 while the European average decreased from €9.28 to €8.55, i.e. by 8%.

⁵³ In Turkey, the number of LLU subscribers were approximately 13 thousands out of 6 million ADSL lines in 2009 (source: annual report of the Turkish Telecommunications Authority).

Cost drivers' adjustments

513. The Authority agrees with Batelco that fixed penetration rate and civil work costs may not be the only cost drivers. However, among the 6 other cost drivers listed by Batelco's Consultants, the Authority notes that two of them (economies of scale⁵⁴ and the level of urbanisation and population density⁵⁵) have already been taken into account in the Authority's analysis.
514. The network modernisation criteria suggested by Batelco's Consultants is irrelevant in the context of loop rates as it only applies to the core and not the access part of the network.
515. With regards to the cost of capital, the Authority notes that Batelco's Consultant have not provided any evidence that the WACC in Bahrain was higher than in the benchmarked countries nor have they estimated the effect it may have on the benchmark.
516. With regards to the other cost drivers listed by Batelco's consultants (i.e. required grade of service and demand characteristics), the Authority notes that Batelco's Consultant acknowledge that their impact on benchmark is ambiguous. The Authority also notes that there is not sufficient information available to estimate the impact on benchmarks.
517. Finally the Authority notes that Batelco's Consultants have made no attempt to model the effect of the additional cost drivers they have put forward. They also explicitly acknowledge that "*the impact of including these additional adjustments are ambiguous*" (Batelco's Consultant report, page 12).
518. With regards to Batelco's Consultant's statement that "*it is unclear one would expect a negative relationship between fixed line penetration and UMPL rental charges*", it is useful to clarify a few points.
519. First, the UMP monthly rental charge is calculated by dividing the access network costs by the number of lines. Given the way access networks are deployed (i.e. area by area, street by street), costs do not depend primarily on the number of active lines but on the geography of the country covered by the access network. Thus the UMP monthly rental charge (i.e. cost per line) can be expected to increase when fixed-line penetration decreases.
520. Second, in its analysis, the Authority considered penetration rates at the household level and not at the population level. Batelco's Consultants attempt to identify a relationship between the "*LLU monthly rental charge*" and the "*fixed penetration rate*" in terms of inhabitants. The Authority believes that this approach is not valid as the comparison should be between the "*LLU monthly rental charge*" and the "*fixed-line penetration rate*" in terms of households. In which case, all else being equal, if the fixed-

⁵⁴ This has been taken into account in the Draft Order through the penetration rate parameter of the Authority's benchmarking analysis.

⁵⁵ This has been taken into account in the Draft Order as the Authority has chosen countries for the benchmark with similar household density.

line penetration (in terms of households) increases then the UMPL rental charge decreases⁵⁶.

521. Third, the Authority has made an adjustment to its benchmark for differences in penetration rates amongst a peer group of countries and not amongst a group of heterogeneous countries as included in Batelco's Consultants' report.

522. The Authority therefore concludes that its cost driver adjustments remain relevant in the context of cross-checking the proposed level of UMP monthly rental charge in the Kingdom of Bahrain with other countries.

The recovery of LLU implementation cost

523. In the Reference Offer Order dated 25 January 2011 (Reference MCD/01/11/006), the Authority has determined, after having taken into consideration Batelco's comments and Batelco's Consultants report on the ISC, that LLU set-up cost should be recovered through the ISC (see paragraphs 595 to 597 of that Reference Offer Order).

524. The Authority notes that Batelco has not submitted any meaningful estimates of implementation cost despite being asked on several occasions.⁵⁷

Effect on Batelco's retail broadband business and application of a margin squeeze test based on LLU

525. In relation to Batelco's comments on the margin squeeze analysis, the Authority re-emphasizes that its analysis has not been used to set the UMPL monthly rental charge but to assist in determining whether the proposed LLU rental was discriminatory. As explained in paragraph 352 above, "*while the margin squeeze analysis assists in determining whether the proposed LLU monthly rental is discriminatory, the analysis of Batelco's costing information is used to set the LLU rental*". As a consequence, the margin squeeze test has not been used to set the UMP monthly rental charge. Batelco's comments are therefore not relevant in the context of this Order.

Conclusion

526. The following table gives for each chargeable activity the charge proposed by Batelco and the charge ordered by the Authority.

⁵⁶ The UMPL rental charge is equal to copper local access cost that does not depend on the number of lines divided by the number of lines. $UMPL = \text{Costs} / \text{nb of lines} = \text{Costs} / [(\text{nb of households}) \times \text{fixed penetration in terms of households (in \%)}]$.

⁵⁷ Including by emails from Dr Alexandre Serot (the Authority) to James Ibbetson (Batelco) on 17 March 2010, 18 March 2010, 20 April 2010 and the Authority's letter dated 14 June 2010 (MCD/06/10/064).

LLU Reference Offer Order



ANNEX A: LEGAL REASONING

هيئة تنظيم الاتصالات
Telecommunications Regulatory Authority

	Charge proposed by Batelco	Fair and reasonable and non-discriminatory charge ordered by the Authority	Charge basis	Reasons for change
UMPL Connection and Cessation Charges	BD 41.350	BD 25.550	Per event	Reduction of the tasks durations
UMPL Survey Charge	BD 300	Deleted	Per event	Not Justified
UMPL Line Continuity Charge	BD 22.100	BD 11.900	Per event	Reduction of the tasks durations
Reject, Reversal, Withdrawal Charge	BD 7	BD 5	Per event	Reduction of the tasks durations
UMPL Rental	BD 6.090	BD 4.090	Per line per month	FAC accounts review
UMPL Rental (premium repair)	UMPL Rental + 60%	UMPL Rental + 60%	Per line per month	UMPL Rental (premium repair)
SNFM Order and Cessation Charges	BD 19.250	BD 13.650	Per event	Reduction of the tasks durations
License fee – Co-mingling	BD 350	BD 350	Per rack per month	In line
License fee – First Dedicated rack	BD 1050	BD 1050	for the first rack per month	In line
License fee – Supp. Dedicated rack	BD 350	BD 350	for each supp. rack per month	In line
License fee – Shelter	BD 25	BD 25	per square metre per month	In line
Security ID Cards Charge	BD 2	BD 2	per ID Card per month	In line
Escorted planned normal working hours	BD 21	BD 21	per hour	In line
Escorted planned outside working hours	BD 31	BD 29	per hour	Reduction of the premium for outside working hours
Escorted unplanned normal working hours	BD 62	BD 30	per hour	Reduction of the premium for unplanned access

LLU Reference Offer Order



ANNEX A: LEGAL REASONING

هيئة تنظيم الاتصالات
Telecommunications Regulatory Authority

	Charge proposed by Batelco	Fair and reasonable and non-discriminatory charge ordered by the Authority	Charge basis	Reasons for change
Escorted unplanned outside working hours	BD 93	BD 41	per hour	Reduction of the premium for outside working hours and for unplanned access
Reject, Reversal, Withdrawal Charge	BD 7	BD 5	per event	Reduction of the tasks durations
Additional Power Charge	BD 70	BD 70	per kW and per year	In line
HDF Block Rental	BD 48	BD 5	per month	Explained in reasoning
Tie Cable Joint & Cease Charge	BD 841	BD 126	per event	Reduction of the tasks durations
Tie Cable rental charge	BD 37	BD 25	per cable per month	Explained in reasoning
Tie Cable Duct charge (for Distant OLO Space only) – Setup charge	Time and material basis (as specified in Schedule 3 Annex 1)	BD 0.756	per event	Tie Cable and Duct setup and rental charges were combined and have been separated for clarity reason
Tie Cable Duct charge (for Distant OLO Space only) – Rental charge	Time and material specified under sch 3 annex 1 plus monthly duct rental charge sch 3 2-3.9	Monthly duct rental charge Schedule 3 2-3.9 + 300% premium	per cable per month	Tie Cable and Duct setup and rental charges were combined and have been separated for clarity reason
Specific information request	BD 336	BD 336	per event	In line
Help Desk line	BD 0.350	Free	per minute	Explained in reasoning
Service Node make ready for LLU	Time an material	Time and material	Per Service Node	In line
Wrongful Repair Charge	Time and material basis (as specified in Schedule 3 Annex 1)	Time and material basis (as specified in Schedule 3 Annex 1)	Per wrongful repair request	In line

SECTION 3: OTHER COMMENTS RAISED BY BATELCO

Summary of Batelco's Comments related to "General Amendments to all LLU and ancillary Service Descriptions"

Process and Operational Issues

527. Batelco expressed its concerns regarding processes in paragraphs 6 and 7 and in paragraphs 20 to 25 of its submission.

528. In paragraphs 6 and 7 of its response, Batelco states that it is not fair and reasonable to require "manual launch and SLAs with service credits and non-binding forecasts from the day of commercial launch" of LLU. Instead, Batelco proposes the following:

- a. A manual launch of the LLU wholesale offer within one month from the Order instead of the 14 days as set out in Access Order 1 of 2009.
- b. Service levels and delivery assurance to be carried out on a non-binding indicative and "best effort" basis.
- c. No service credits to be implemented for LLU.
- d. Automated launch in the 2nd quarter if there is sufficient demand and reasonable cost recovery principles.

529. Batelco finally points out that a full manual launch without any IT development, as it has done during the field tests, will lead to process issues and affect LLU costing. Batelco argues that the LPAM system is not designed for LLU and can lead to fault handling issues. Batelco also provided its own estimates of the time to provision unbundled lines if LLU is implemented on "the current parameters of the field test" (88 minutes for manual process compared to an implied duration of 55 minutes for automated process⁵⁸).

530. Batelco further argues that it had made significant changes to the service descriptions and refers to the Authority's email (from Adel Darwish to James Ibbetson) on 26 April 2010. Referring to an email from the Authority to Batelco (Adel Darwish to James Ibbetson) on 19 May 2010, Batelco also indicates that it was under the impression that the service descriptions were in finished form.

Benchmarks

531. Batelco is concerned with the selection of benchmarked countries used for various elements of the Draft RO Order. Batelco argues that the Authority's benchmarks are not relevant due to a "questionable" selection of countries. According to Batelco, the

⁵⁸ Please see paragraph 333 above

Authority has “*benchmarked shopped*” and has not justified the individual choices of country for individual elements.

532. In particular, out of the 6 countries used in the benchmark, Batelco comments that:

- a. The Authority has used 3 countries (Malta, Belgium and Ireland) with “*almost non-existent LLU uptake*”. According to Batelco, these countries cannot provide the most relevant of information, especially considering that in Malta and Belgium, LLU has been steadily declining.
- b. The Authority has also used France and the UK which have a high LLU uptake. According to Batelco, these countries are of a scale that make a comparison with Batelco not applicable. Batelco states that it cannot be expected to be “*best practice*” from the launch of LLU like France. Batelco is therefore of the view that if the Authority has used 3 countries with low or non-existent LLU uptake, the Authority should have used 3 other countries with average or higher LLU uptake.

533. Batelco also indicates that, according to its understanding, some incumbents in Europe like in Italy or Sweden implemented LLU of their own initiative without any mandatory obligations imposed by regulators.

Comments on the Authority’s review of interconnection specific costs – Annex C of Batelco’s Submission

534. Batelco raised various concerns in relation to the ISC. The Reference Offer Order issued 25 January 2011 (Ref: MCD/01/11/006) provides a summary of Batelco’s submission, and the Authority’s analysis and view on the points raised by Batelco.

Comments on Chronology (Annex E to the Order)

535. Batelco has identified a number of missing elements in the chronology and it has asked the Authority to remove the chronology section should a final Order be issued.

The Authority’s analysis and conclusion for “*General Amendments to all LLU and ancillary Service Descriptions*”

Processes and operational issues

536. With regards to Batelco’s request to delay the commercial launch of LLU from 14 days to one month after the issuance of the Order, the Authority considers that Batelco has not provided any valid justifications for this extension.



ANNEX A: LEGAL REASONING

537. In the first stages of LLU, OLOs will be placing orders for making ready specific Service Nodes for LLU. This means that OLOs will not be able to place orders for UMPL until 12 weeks (at minimum) from the commercial launch date (see Figure 5 below), with the possible exception of one OLO that still has equipment at two Service Nodes. In accordance with paragraph 75 of Annex B to Order 1 of 2009, this equipment has been allowed to remain at the Service Nodes since the Field Test. This is unlikely to adversely impact Batelco’s ability to meet the commercial launch date within 14 days of the date of the Order. This gives Batelco a significant amount of time to complete necessary preparations.

538. Thus, absent adequate justification for the delay, the Authority concludes that LLU should be launched within 14 days from the Order.

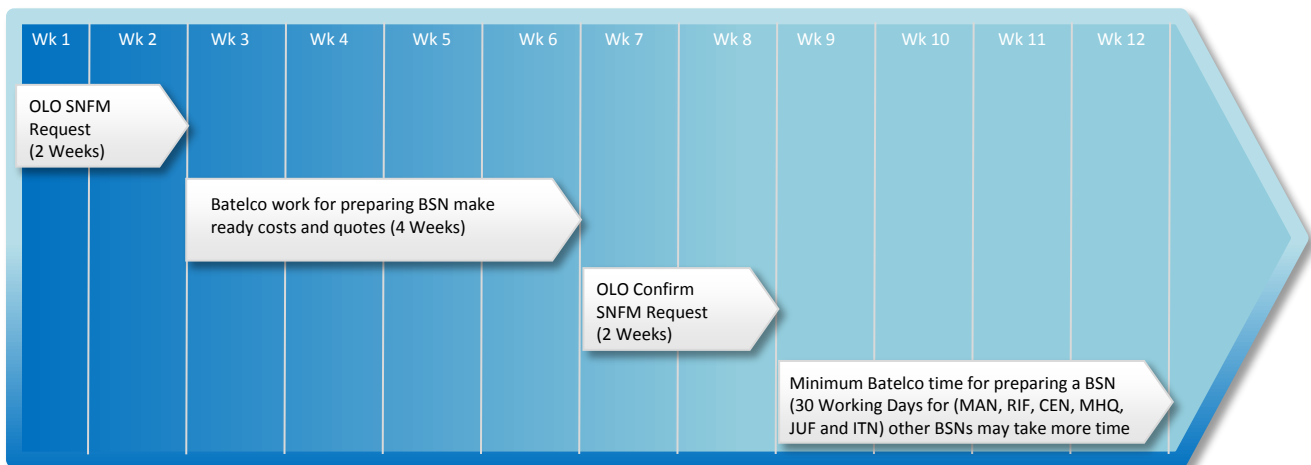


Figure 5: A diagram showing the time between the commercial launch of LLU and when OLO can start placing UMP Requests

539. In Access Order 1 of 2009 and in particular the Implementation Report, the Authority explained that Batelco should provide SLAs with associated penalties⁵⁹. The Authority would like to point out that Batelco, at the time, did not disagree with binding SLAs.

540. The Authority considers manual processes to be appropriate and relevant for LLU during the initial launch phase. The Authority also believes that an automated process should be introduced, once the requirements for such process have been identified by the industry and approved by the Authority, in order to improve the efficiency of unbundling. Manual launch with SLAs should not hamper Batelco as the validation and delivery times are already generous by international standards.

⁵⁹ Source TRA, Implementation report for Local Loop Unbundling in the Kingdom of Bahrain, paragraph 127 and 130.

541. In relation to Batelco's comment on provisioning time for UMPL, the 39 minutes duration is explained at paragraph 333 above. Batelco has not provided any comment that would justify a change of the 39 minutes duration used to calculate the one-off charge related to the UMP provision. This duration will notably give incentives for Batelco to be more efficient.
542. In order to provide the necessary certainty to OLOs and appropriate incentives to Batelco to provide the service in a timely and predictable manner, the Authority remains of the view that SLAs and penalties should apply from day one of LLU launch.
543. In response to Batelco concerns raised in paragraph 530 above, the Authority would like to clarify that at no point did it indicate that it had completed its assessment of the SDs against the requirements of the Telecommunications Law and concluded that the SDs were deemed fair and reasonable.
544. The Authority would also like to point out that the process followed by the Authority (i.e. issuance of draft and final order) is contemplated in the Telecommunications Law and was deemed appropriate by the Authority. This consultative process is fully transparent and gives Batelco and OLOs the detailed reasoning for the changes made.

Benchmarks

545. The Authority would like to clarify that the 6 benchmarked countries used for non-price terms (France, the UK, Luxembourg, Ireland, Malta and Belgium) have been selected taking into account the following criteria:
- a. Their LLU reference offers are publicly available and include most of the components to be benchmarked.
 - b. The Authority has included countries where LLU has been successful such as France and the UK. The Authority agrees with Batelco that data from "best practice" countries is useful and this has been taken into consideration by including these 2 countries.
 - c. The Authority has also chosen countries similar to the Kingdom of Bahrain, both in terms of geography and size. These include Malta, Luxembourg, Ireland and Belgium. The Authority also believes that such countries may have faced similar difficulties as to the ones faced in the Kingdom of Bahrain due to their specific geography⁶⁰. The Authority also notes that all these countries have recently established LLU⁶¹.

⁶⁰ As detailed in Table 26, Belgium, Malta, Luxembourg and Ireland have a population in the same order of magnitude as Bahrain (i.e. not above 12 million and not below 120,000 inhabitants), considering that the Bahraini population is about 1.2 million inhabitants.

⁶¹ In Ireland, Comreg, Amendment of line share price, 27 June 2008.
In Malta, Wholesale Broadband Access Market Decision, 14 November 2008.
In Luxembourg, Règlement 09/139/ILR, 27 April 2009.
In Belgium, Decision du Conseil de l'IBPT relative à la BRUO rental fee, 3 August 2010.

546. Thus, the choice of benchmarked countries is not dependant only on whether LLU is successful or not.

547. The benchmarked countries encompass two groups: France and UK on the one hand and Malta, Luxembourg, Ireland and Belgium on the other hand. The below table provides an indication of the penetration of LLU and the population in the benchmarked countries.

	France	UK	Luxembourg	Malta	Ireland	Belgium
Penetration of LLU in DSL	38%	43%	9%	0%	3%	5%
inhabitants	64,768,389	62,348,447	497,538	406,771	4,622,917	10,423,493

Table 26: LLU penetration and population in the benchmarked countries (Source ECTA and CIA Worldfactbook)

548. With regards to the Authority's benchmarking analysis, the Authority considers that the scope of its benchmark satisfies the criteria proposed by Batelco with one group of three countries "having almost non-existent LLU uptake" (including Malta, Ireland and Belgium) and another group of three countries "with average or higher LLU uptake" (including France, UK and Luxembourg) (see Table 26 above). Hence, the Authority is of the view that Batelco's argument with regards to the scope of benchmarked countries is not relevant.

549. The Authority would also like to point out that the selection of different countries in the different benchmarks was mainly for practical reasons as the required information was not always publicly available for each country. Thus, the Authority rejects Batelco's criticism that it has "benchmark shopped"⁶².

550. Overall the Authority considers that the arguments made by Batelco do not invalidate the Authority's benchmarking analysis. The Authority considers that the scope of its benchmark is appropriate and that the corresponding results can be relied upon.

Comments on the Authority's review of interconnection specific costs – Annex C of Batelco's Submission

551. Batelco's submission on ISC has been addressed by the Authority in the Reference Offer Order of 25 January 2011 "An Order issued by the Telecommunications Regulatory Authority ("TRA") on the Reference Interconnection Offer and Reference Access Offer of the Bahrain Telecommunications Company B.S.C ("Batelco")" – Reference MCD/01/11/006.

⁶² For example, in Luxembourg the Reference Unbundling offer does not mention any penalties related to the UMP Service delivery contrary to the other benchmarked countries. In Belgium there was no mention of any penalties related to the response and repair times in the Reference Unbundling offer.

LLU Reference Offer Order

ANNEX A: LEGAL REASONING



Comments on Chronology (Annex E to the Order)

552. The Authority does not accept Batelco's request to remove the chronology from the final Order since it provides transparency to the market regarding the review process of the LLU Reference Offer. If Batelco notices that any element of the chronology is missing then it can inform the Authority which will amend the chronology accordingly.

SECTION 4: RESPONSE TO BATELCO'S CONCERNS RAISED IN ANNEX D OF BATELCO'S SUBMISSION

Summary of Batelco's response to "Submission on the scope of the draft LLU Reference Offer and Application for a determination that Batelco has no SMP in the retail market for the supply of broadband Internet access"

No SMP in the downstream retail market and removal of tariff regulation from Batelco in this market - Part A

553. Batelco "requests that TRA determines that, once the order is implemented, Bahrain Telecommunications Company BSC (Batelco) will have no significant market power ("SMP") in the retail market for the supply of Broadband Internet Access ("Downstream Retail Market")".

554. Batelco provides a lengthy submission to support its claim that Batelco no longer has SMP in the relevant market.

Request for an adjustment to the scope of the Order - Part B

555. Batelco submits that that the Authority should apply LLU with greater precision. It considers that the following carve-outs should be introduced:

- a. Where a building has already been subject to a fibre deployment by a competitor of Batelco;
- b. if fibre is deployed by Batelco in a building to replace the copper;
- c. Where the costs of implementing a "LLU solution" for a building cannot be recovered by Batelco at the wholesale price levels proposed by the Authority.

556. Batelco further requests the Authority to reconsider some aspects of its 2009 Dominance Determination in Wholesale Broadband Markets (Ref: MCD/09/09/064) prior to finalising the LLU remedy. Batelco argues that the Wholesale Physical Network Infrastructure Access market ("**WPNIA market**") should include access to NFWS and self-supply by NFWS operators since Batelco contends that: (a) NFWS networks have sufficient capacity; and (b) a 10% increase in the LLU price would lead to a switch from LLU based customers to NFWS customers. Batelco explains that including NFWS local loops and the self-supply from NFWS would enable the Authority to find that Batelco is not dominant in the WPNIA market.

No need for LLU where a competitive fibre is deployed - Paragraph 3 of Part B

557. Batelco submits that LLU should not be required for buildings that are already served by a fibre of an OLO because there is no longer an infrastructure bottleneck in this case.



ANNEX A: LEGAL REASONING

Batelco notes that infrastructure based competition is accepted to deliver superior competitive outcomes than service based competition (Batelco refers in particular to the EU competition commissioner statements⁶³, ERG statements⁶⁴, the South Korean⁶⁵ and the Hong Kong examples). Batelco makes also reference to the concept of investment ladder according to which, where competing infrastructure is deployed, there is no need for the investment ladder to remain. Batelco concludes that LLU is not necessary where fibre has been rolled out.

Need for incentives to rollout fibre for Batelco - Paragraph 4 of Part B

558. Batelco points out that LLU should not be required for buildings in which Batelco has deployed fibre to replace the existing copper infrastructure. According to Batelco, the LLU remedy will hold back the development of the market. For Batelco, removing the LLU remedy will assist the economics of fibre rollout in the Kingdom of Bahrain. Batelco emphasises the importance of fibre from a technical and economic point of view especially in a context of the ever-increasing bandwidth demand in the Kingdom of Bahrain.

No LLU where a disproportionate rollout cost - Paragraph 5 of Part B

559. Batelco considers that “*LLU should not be required for a home or building where the costs of implementing an LLU solution for that home or building are not able to be recovered by Batelco at the wholesale price levels proposed by TRA*” (Batelco’s submission, Annex D, page 30).

560. Batelco also submits that “[w]here the number of wholesale customers of LLU is at a level that does not justify the continued maintenance of Batelco’s copper network, Batelco should be allowed to make an economic rational decision to shut down its copper network in that area” and that “[i]n any event, it does not make sense that LLU should be mandated in areas where Batelco’s copper network is uneconomic to run and LLU is less attractive to OLOs, compared to other technologies (Batelco’s submission, Annex D, page 31).

Caution in LLU pricing - Paragraph 2 & 3 of Part C

561. Batelco explains that the Authority should be cautious in setting LLU prices. LLU prices should not deter infrastructure investment. Batelco bases its analysis on the examples of Australia, the EU and the United States. Batelco points out that the setting of

⁶³ Mario Monti, *Competition and Regulation in the Telecom Industry – The way forward*, Speech/03/604, ECTA Conference, Brussels, 10 December 2003.

⁶⁴ ERG: ERG Common Position on the approach to Appropriate remedies in the new regulatory framework, 23 April 2004, p. 67

⁶⁵ Ofcom, Strategic Review of Telecommunications, Phase 2 Consultation Document, Appendix O, paras O.29 and O.36

artificially low LLU price would lead to wrong price signals to the market and lead to excessive investment in DSLAM infrastructure and excessive market entry.

562. According to Batelco, “*LLU should be priced so that Batelco earns sufficiently above its weighted average cost of capital particularly with the view to promoting fibre deployment*”.

The Authority’s analysis and conclusion for “Submission on the scope of the draft LLU Reference Offer and Application for a determination that Batelco has no SMP in the retail market for the supply of broadband Internet access”

No SMP in the downstream retail market and removal of tariff regulation from Batelco in this market - Part A

563. Batelco’s retail broadband services from a fixed location are currently regulated by virtue of the finding of Batelco’s SMP in the retail market for broadband internet access services from a fixed location made in 2008⁶⁶. In line with the Telecommunications Law, the removal of the regulation of Batelco’s retail broadband services and any other regulatory remedies imposed on the basis of a finding of SMP or dominance, can only take place once the relevant market has been reviewed and no SMP or dominance has been found. Pending such a review, regulatory obligations, including the regulation of Batelco’s retail broadband services remain in effect.

564. The Authority notes the implicit demand by Batelco to conduct a review of the relevant retail market. The Authority intends to communicate to Batelco its intention regarding this request for a market review during the first half of 2011.

Request for an adjustment of the scope of the Order - Part B

565. The Authority does not consider the points made by Batelco on carve-outs are justified. LLU is clearly being introduced to address Batelco’s dominance in the WPNIA market (which explicitly exclude fibre) and resulting market failure (see Annex C of Access Order No. 1 of 2009).

566. More specifically, in relation to the first case mentioned by Batelco (paragraph 555(a) above), the Authority is of the view that it does not necessarily follow that a fibre deployment by a Batelco competitor would result in the removal of the market failure in the WPNIA market. The second case (paragraph 555(b)) may result in the emergence of a new bottleneck. The Authority’s comments at paragraph 574 are relevant to this case while the Authority’s comments at paragraph 573 adequately covers the third case mentioned by Batelco (paragraph 555(c)).

⁶⁶ The Authority, Significant market power determination in certain relevant markets, 3 June 2008.

ANNEX A: LEGAL REASONING

567. Further, the Authority considers that such carve-out could lead to an overly complex and patchy situation which could be subject to strategic investment by Batelco to impede its competitors. The Authority also notes that Batelco and for that matter other OLOs have not announced at this point any major fibre roll-out plan. Thus the issues raised by Batelco are still premature.
568. With regards to Batelco's point regarding market definition and the obligation imposed on Batelco to provide LLU, Batelco is reminded that the Authority followed an extensive consultation process which resulted with the release of the 2009 Dominance Designation on 14 September 2009.
569. Batelco's LLU is currently regulated by virtue of the finding of dominance of Batelco in the WPNIA market. In line with the Telecommunications Law, the withdrawal of this obligation (before its introduction) and any other regulatory remedies imposed on the basis of a finding of SMP or dominance, can only take place once the relevant market has been reviewed and no SMP or dominance has been found. Pending such a review, regulatory obligations, including LLU remain in effect.
570. Notwithstanding the above, the Authority does not consider that the points raised by Batelco would either warrant a change of market definition or of dominance. The Authority refers Batelco to paragraphs 91 to 114 of the 2009 Dominance Determination.

No need for LLU where a competitive fibre is deployed - Paragraph 3 of Part B

571. The comments raised by Batelco are addressed at paragraphs 565 to 570 above.

Need for incentives to rollout fibre for Batelco - Paragraph 4 of Part B

572. The Authority considers that the LLU rates set by the Authority provide appropriate "make or buy" price signals for Batelco and OLOs to invest. The price signals offer adequate incentives and are technologically and platform neutral.

No LLU where there is a disproportionate rollout cost - Paragraph 5 of Part B

573. With regards to the first point raised by Batelco regarding cost recovery, the Authority considers that the scope of Access Order No 1 of 2009 adequately mitigate the risks identified by Batelco. As explained in that Order:
- a. the obligation to unbundle applies to lines where the capacity has already been deployed,⁶⁷ and hence where the associated costs are already included in the UMP monthly rental charge.

⁶⁷ "This Access Order applies only to Batelco's metallic path (copper local loop) and applies to both active and non-active lines for which there is capacity available at both the main and distribution network levels" Source: TRA, Access Order No. 1 of 2009, MCD 09/09/065, 14th September 2009, Paragraph 2.1

- b. *“Batelco may only refuse to unbundle Non-Active Lines based upon objective technical reasons which should be justified in writing to OLOs at the time of Batelco’s refusal”⁶⁸.*
- c. *“Should an end-user and OLO wish to be connected on a non-active line, then Batelco must allow that line to be unbundled, including if there is no final drop, by installing the final drop, which will be charged by Batelco to the OLO on a time and materials basis”. As a consequence, the Authority considers that if the OLO agrees to pay the charge, then the final drop should be deployed.*

574. With regards to the other points raised by Batelco, any shutdown of the copper network in particular areas would have to be consulted upon with the Authority and the industry. A (selective) shutdown of the network could lead to asset stranding and be anti-competitive. In case parts of the access network were to be shut down, significant advanced notice would be required.

Caution in LLU pricing (Part C, Paragraph 2 & 3)

575. Batelco has not explained in what respects it considers the Authority’s approach to be not cautious and inconsistent with the Telecommunications Law.
576. The Authority agrees with Batelco that setting too low LLU prices may deter investment in infrastructure. At the same time, LLU charges should not be set too high in order to avoid creating barrier to entry and stifle the development of the market or to avoid the development of inefficient alternative infrastructure⁶⁹.
577. The Authority remains of the view that its approach to determine the LLU monthly rental charge has been carried out with caution and care, with several crosscheck-analyses. In particular, the Authority considers that it has used the best available tools to set LLU charges based on cost.
578. The Authority also observes that the use of standard methodologies around the world to set LLU prices such as historical cost accounting, current cost accounting or forward-looking LRAIC methodologies, are not preventing the development of fibre access networks.

⁶⁸ Source: TRA, Access Order No.1 of 2009, MCD/09/09/065, Paragraph 2.5

⁶⁹ *“TRA aims to provide the right incentives for efficient investment in alternative infrastructure, regardless of the technology deployed”* Source: TRA, LLU implementation report dated 14 September 2009, Paragraph 81

**ANNEX B: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Clean version)**



Annex B

**LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES TERMS
(Clean Version)**

**ANNEX B: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Clean version)**



Unbundled Metallic Path Service Description

**ANNEX B: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Clean version)**



SERVICE DESCRIPTION 2-A: UNBUNDLED METALLIC PATH SERVICE

1. THE SERVICE

The UMP Service is an access service which provides the OLO the full useable spectrum of a dedicated metallic path to an end user. Whilst Batelco does not deploy pair gain systems on its Network the removal of pair gain Equipment does not form part of the UMP Service.

A technical description of the metallic path is available in Annex 4 of this Service Description, for illustrative purposes only. Where there are discrepancies, the text in this Service Description will prevail.

Available To: Holders of an Individual National Fixed Services License (NFL) or an Internet Service Provider Class License (ISP) granted by the Telecommunications Regulatory Authority.

Traffic: Traffic permitted by the licenses held by the OLO.

2. DEFINITIONS

Capitalised terms not defined in this Service Description are defined in the Dictionary of the Supply Terms. Terms defined in this Service Description are specific to it.

ANFP means Batelco's Access Network Frequency Plan which is a spectrum management plan for controlling interference, caused by cross talk, within a metallic access network as reviewed and amended from time to time.

Batelco Service Node (BSN) means a Batelco exchange building specified in the list issued by Batelco pursuant to paragraph 3.2 Annex A ("Implementation") of Access Order No.1 of 2009.

Blocks means those blocks in 100 pair units installed either on the MDF or HDF forming part of the UMP Service.

Blocks and Tie Cables Delivery Rebate Cap means 200% of the monthly HDF Block Rental Charge or monthly Tie Cable Rental Charge where applicable.

Blocks and Tie Cables Validation Rebate Cap means 200% of the monthly HDF Block Rental Charge or monthly Tie Cable Rental Charge where applicable.

CLTQS means Batelco's centralized line testing and pre-qualification solution

Covered Failure means an actual or suspected failure in the UMPL.

DP means a Distribution Point.

End User Consent means the written consent of an End User duly completed and signed to receive a service by means of amongst other components a UMP Service supplied to the OLO in accordance with a **UMP Request**, which consent is provided to Batelco by or on behalf of the End User. For the avoidance of doubt the End User Consent can be in the form

**ANNEX B: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Clean version)**



of the terms and conditions signed by the customer when requesting a service from the OLO.

End User Management means all aspects of interface with the customer product support and billing of the End User by the OLO in relation to each End User contracting with the OLO for using the UMP Service and all customer support by the OLO in relation to maintenance issues related to the End User.

Fault means faults related to the provision of the Local Loop Unbundling Service.

Fault Management means Faults described in Schedule 6 of Batelco's Reference Offer.

Gaining Operator means an OLO who presents Batelco a UMP Request.

HDF means Batelco provided handover distribution frame for the connection of a Tie Cable.

HDF Block Service Credit means, in relation to a single Service Credit, that amount represented by five per cent (5%) of the monthly rental charges for the HDF Block.

Infrastructure Availability means in accordance with paragraph 4.1 (b) for non-active UMPLs Batelco carries out a physical survey of the availability of the UMPL between the DP and the MDF.

Implementation Date means the target date by which Batelco shall complete an UMP Request.

Line Continuity means a tone test carried out by Batelco from time to time in relation to the UMPL:

- For active lines: between the HDF and the line side of the MDF; and
- For non-active lines: between the HDF and the relevant Network Boundary (passing through the relevant street cabinet) except in case of Distant collocation where the test is completed from the MDF.

Losing Operator means an OLO whose End User is subject to a UMP Request given to Batelco by a Gaining Operator.

LPQM means Batelco's line plant query manager giving the theoretical distance and broadband performance on the basis of the address of the End-user.

Response Time means Batelco's Response Times in respect of each Covered Failure.

Restoration Time means Batelco's Restoration Times in respect of each Covered Failure.

MDF means the Batelco owned main distribution frame in a BSN enabling provision of a UMP.

MP means metallic path.

Network Boundary means the Batelco distribution point at customer premises contemplated by Batelco's fixed services license.

NTP means Network Termination Point.

**ANNEX B: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Clean version)**

Order means a written request by the OLO for Blocks and Tie Cables in a form issued or approved by Batelco from time to time.

Response Rebate Cap means 40% of the monthly rental Charges for the UMPL (8 UMP Service Credits).

Restoration Rebate Cap means 800% of the monthly rental Charges for the UMPL (160 UMP Service Credits).

SNFM Service means the Service Node Facilities Management Service used in conjunction with this service description as specified in service description 2-B of the Reference Offer.

Service Qualification means the analysis carried out by Batelco to confirm whether a UMP service can be provided on the Batelco network by checking:

- (a) Line Continuity; and/or
- (b) Infrastructure Availability; and/or
- (c) CLTQS (active UMPLs) or LPQM (non-active UMPL) on an information only basis.

Threshold Response Time means, in relation to a Covered Failure, the threshold response times set out in paragraph 7.2.

Threshold Restoration Time means, in relation to a Covered Failure, the threshold restoration times set out in paragraph 7.2.

Tie Cable means a cable connecting the UMP from the MDF to the HDF provided by Batelco.

UMP means an existing two wire metallic path connection between the HDF and the Network Boundary comprising a UMPL, jumper cable connecting the UMPL and the Tie Cable, and Tie Cable connecting the MDF with the HDF together with Blocks for the HDF and MDF.

UMP Cease Request means a request by an End User to Batelco or the OLO on the request of the End User to reverse a UMP Request as described in the UMP Request process set out in Annexure 1 to this Service Schedule.

UMP Invalid Transfer means a UMP Transfer:

- (a) where the End User (or its/her/his agent) did not request the services that the OLO has made a UMP Service Request in order to supply to the End User;
- (b) where a written End User Consent cannot be produced by the Gaining Operator on request by Batelco to support the UMP Request; or
- (c) which resulted from a processing error.

UMP Request means a UMP Service Request, a UMP Swap Request or UMP Cease Request, as the case may be.

**ANNEX B: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Clean version)**

UMP Service Credit means, in relation to a single Service Credit, that amount represented by five per cent (5%) of the monthly rental charges for the UMPL.

UMP Service Request means the request by the OLO for a UMP Service relating to a proposed UMPL under paragraph 4.1(b) (non-active lines).

UMP Swap means on the request of the End User to Batelco or a Gaining Operator to Batelco or End User to the Gaining Operator for a change of an active UMP from Batelco to the OLO or from the OLO to Batelco or from a OLO to another OLO for the provision of services to an End User.

UMP Swap Request means a request from an OLO to make a UMP Swap.

UMP Transfer means a UMP Request by an OLO.

UMPL means an existing two wire metallic path connection between a Batelco MDF and the Network Boundary.

UMPL Delivery Rebate Cap means 200% of the monthly rental Charges for the UMPL.

UMPL Validation Rebate Cap means 200% of the monthly rental Charges for the UMPL.

Useable Pair means the copper wire connection to the End User as specified in paragraph 4.1.

Wrongful Repair Charge means charges for repairs as a result of a fault report lodged to Batelco by an OLO and such faults do not relate to the UMP Service.

3. SERVICE TERMS

- 3.1 Each party acknowledges this Service is conditional upon necessary space being prepared, accepted by the OLO and made ready in accordance with the SNFM Service.
- 3.2 Ownership of the UMP shall remain with Batelco. Without prejudicing the ability to resell licensed telecommunications services using the UMP, the OLO shall not assign, transfer or share their interest in or rights to the UMP.
- 3.3 Batelco will implement UMP Requests from the OLO and requests for configuration and provision of connections from other OLOs and from itself with respect to any UMPL in accordance with Batelco's non-discriminatory provisioning schedule by area.
- 3.4 Each UMP Service or UMP Swap Request shall be for a minimum period of 1 month from the activation date of the UMP Service. If Batelco receives a UMP Cease Request for that UMP on or before the end of the first month from the activation date then the OLO shall pay Batelco the UMP pro rata aggregate rental cancellation charges for the unexpired 1 month period.

**ANNEX B: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Clean version)**

- 3.5 If Batelco terminates this service in whole or in part subject to the termination condition included in this SD, then each relevant UMP Service and SNFM Service will terminate.
- 3.6 If a regulatory obligation to support or supply any specific UMP Service no longer applies, Batelco may cease to supply the UMP Service to an OLO on 12 months prior written notice. The OLO will not request the UMP Service for any further End Users 6 months prior to end of the notice period unless commercially agreed between the parties. The OLO will also inform each existing End User that the UMP Service will terminate at the end of the 12 month period.
- 3.7 Where Batelco has reasonable objective grounds to consider that the OLO is in breach of an obligation consequent to the UMP Service, Batelco may, after notifying the Authority and obtaining the Authority's written approval:
- (a) suspend implementation by the OLO of the UMP Service and/or
 - (b) take any other step contemplated by the Supply Terms to protect Batelco's network or other interests.

4. END USER ACCESS

Useable Pairs

- 4.1 The OLO acknowledges that Batelco only supplies the UMP Service, subject to successful Service Qualification, where:
- (a) Batelco supplies operational telephone PSTN and ISDN or broadband services to the same End User over the same Useable Pair as may be used with the UMP Service by the OLO to provide services to the End User; or
 - (b) spare copper pairs exist between the MDF and Batelco's distribution point; and where there are no objective and justifiable technical, legal or operational grounds to prevent delivery by jumpering at the MDF, jumpering at the street cabinet and/or provision of a drop wire. Batelco will provide objective reasons justified in writing to OLOs at the time of Batelco's refusal. To the extent it applies similar treatment and processes to its retail End Users, Batelco shall provision an alternative UMPL if existing suitable spare pairs are available
- 4.2 For each UMP Request the OLO warrants that it has informed the End User that the installation and operation of the UMP Service may require changes to the placement of existing telecommunications devices or changes of equipment.
- 4.3 The OLO acknowledges that the UMP Service will allow the provisioning of services to End Users but the quality of such services will be subject to the variable conditions and characteristics of the Useable Pairs. Where the quality of service degradation or interruption of service arises in connection with the operational life span of the UMPL, Batelco is under no obligation to replace that UMPL except in cases where failure to do so would result in undue discrimination by Batelco between its retail business and the OLO.

**ANNEX B: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Clean version)**



Maintenance and Non Discrimination

- 4.5 Batelco will provide network maintenance and support services to ensure that the UMP Service is provided to the OLO at the same level of quality of service and availability as Batelco provides to itself.

5. EQUIPMENT

- 5.1 The provision of a UMP Service or the implementation or transfer of the Service does not include the provision of any internal cabling or any customer premises equipment and only comprises the elements specified in this service description.

6. BLOCKS AND TIE CABLES

- 6.1 The OLO shall submit a correctly completed Order to Batelco to request supply of Blocks and Tie Cables in accordance with this Service Description. The Order shall be submitted in the form specified by Batelco from time to time.
- 6.2 To be valid, the Order shall be accompanied by reference information identifying the BSN to enable Batelco to implement the Blocks and Tie Cables Order.
- 6.3 Subject to Batelco obtaining all necessary consents and the OLO fulfilling all of its obligations under the Supply Terms in particular provisioning and installation of the relevant SNFM Service, Batelco will provide the OLO with the Blocks and Tie Cables as specified in the Order accepted by Batelco.
- 6.4 The OLO shall pay the relevant Charges for the Blocks and Tie Cables as specified in Schedule 3 of Batelco's Reference Offer.
- 6.5 At any time and subject to any obligations arising as a result of paragraph 3.4 above, following the successful completion of a Blocks and Tie Cables Request, the OLO may make a request to Batelco to cease the Blocks and Tie Cables service. In this case, the OLO shall pay the Tie Cable cease charge as specified in Schedule 3 of Batelco's Reference Offer.

7 CONNECTION

- 7.1 Batelco will use its reasonable endeavours to connect the UMP Service on or before the relevant Implementation Date which shall be dependent on the following timescales:

**ANNEX B: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Clean version)**



- (a) The maximum validation time and delivery lead time for the installation for an Order or a UMP Request placed by the OLO and accepted by Batelco shall be as follows:

UMP Service component	Validation time between receipt of Order or UMP Service Request and (for UMP Service Requests) verification or (for Orders) acceptance or rejection	Delivery time from acceptance of UMP Request or Blocks and Tie Cables Order to implementation
UMPL	5 Working Days	10 Working Days
Blocks and Tie Cables	5 Working Days	20 Working Days

**ANNEX B: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Clean version)**

- (b) The Service Rebates for a failure to meet the maximum validation time and delivery lead time in the preceding paragraph are as follows:

Target	Rebate for each Working Day or part of a Working Day late
UMPL validation time	10 UMP Service Credits subject to the UMPL Validation Rebate Cap (Equivalent to 50% of the UMPL Rental charge)
UMPL delivery time	10 UMP Service Credits subject to the UMPL Delivery Rebate Cap (Equivalent to 50% of the UMPL Rental charge)
Blocks and Tie Cables validation time	10 HDF Block Service Credits subject to the Blocks and Tie Cables Validation Rebate Cap (Equivalent to 50% of the HDF Block Rental charge)
Blocks and Tie Cables delivery time	10 HDF Block Service Credits subject to the Blocks and Tie Cables Delivery Rebate Cap (Equivalent to 50% of the HDF Block Rental charge)

Batelco will notify the OLO when the connection has been effected in accordance with the UMP Request procedures set out in Annex 1 to this Service Description.

7.2 Fault response and repair

**ANNEX B: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Clean version)**



- (a) Subject to (b) below, the OLO will, as soon as practicable and after becoming aware of a Fault with the UMP (between the HDF and the network boundary) or any other Covered Failure, notify Batelco of that Fault in accordance with the procedures for the reporting of faults set out in Schedule 6 (Fault Management) for the reporting of faults, Fault investigation and identification of the Fault Owner and Other Affected Party. In particular, the Fault should be raised at the level of Fault Control Centre which operates 24-hours a day, 7 days a week and all days in each year in accordance with article 3.1 of Schedule 6 (Fault Management) of Batelco's Reference Offer.
- (b) The OLO shall in particular use the UMPL Fault Management form.
- (c) Batelco shall adhere to the following Response Times and Restoration Times:

Fault type	Response Time between receipt of the Fault Management form and acceptance or rejection	Restoration Time from acceptance of the Fault Management form to notification of restoration	Threshold Response Time between receipt of the Fault Management form and acceptance or rejection	Threshold Restoration Time from acceptance of the Fault Management form to notification of restoration
Covered Failure standard	60 minutes	3 Working Days	90 minutes	5 Working Days
Covered Failure premium	60 minutes	NA	90 minutes	8 hours



**ANNEX B: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Clean version)**

- (d) Where Batelco's Response Time or Restoration Time exceeds the Threshold Response Time or Threshold Restoration Time respectively for Covered Failures then the following Service Rebates, assessed on a quarterly basis per event, will apply:

Fault type (as defined in Schedule 6)	Time by which Response Time exceeds Threshold Response Time	Response Service Rebate	Time by which Restoration Time exceeds Threshold Restoration Time	Restoration Service Rebate
Covered Failure	15 minutes 1 hour More than 1 hour	1 UMP Service Credit 2 UMP Service Credits 1 UMP Service Credits per every additional hour subject to the Response Rebate Cap	One Working Day or part of a Working Day	40 UMP Service Credits subject to the Restoration Rebate Cap

8. FORECASTING

- 8.1 At the beginning of each calendar month, the OLO shall supply a non-binding forecast of the expected requests for the UMP Service in each month of the twelve month period following the date of the forecast, in the form required by Batelco from time to time. The OLO shall use all reasonable endeavours to forecast accurately given Batelco is placing reliance on those forecasts.

9 UMP TRANSFER

UMP Transfer Process

- 9.1 Batelco and the OLO shall comply with clause 9 and Annex 1 of this Service Description when carrying out any UMP Request.
- 9.2 The OLO shall establish robust procedures to ensure an appropriate End User Consent duly completed and signed is received and properly recorded by the OLO before any UMP Service Request is notified to Batelco.

**ANNEX B: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Clean version)**



- 9.3 The OLO shall provide Batelco, upon request, a copy of the End User Consent (OLO's document signed by the End User explaining rights and obligations of the End User and the consequences of Unbundling).

Charges

- 9.4 The OLO shall pay to Batelco the relevant Charges as set out in Schedule 3 of Batelco's Reference Offer.

Responsibilities

- 9.5 From the time of the completion of the UMP Request, the relevant End User will no longer be a customer of Batelco for those services supplied by the OLO using the UMP Service, but instead the customer of the OLO for those services.
- 9.6 From the time of completion of the UMP Request, the OLO shall provide End User Management to support the UMP Services.
- 9.7 When a fault is reported by an End User, it is the responsibility of the OLO to perform initial tests, prior to raising a fault to Batelco, in order to validate that the fault is not within the OLO's network and equipment. In order to assist in the resolution and for efficient use of resources, the OLO shall promptly provide reasonable and complete details of the test performed when reporting the fault to Batelco. If after further investigation Batelco demonstrates the fault does not relate to the UMP Service, then the OLO shall pay the Wrongful Repair Charge (on a time basis as set in Schedule 3 of Batelco's Reference Offer).
- 9.8 In relation to any Batelco service:
- (a) Batelco will continue to bill the End User for any outstanding Batelco charges and other Batelco services; and
 - (b) The OLO acknowledges that the End User remains liable to pay any outstanding charges to Batelco and remains subject to standard Batelco debt enforcement policies notwithstanding that the End User is at the same time an OLO Customer.
- 9.9 In respect of each UMP Request submitted by the OLO to Batelco, the OLO shall ensure that:
- (a) it has an End User Consent for the transfer or implementation (which consent is not more than 30 days old from the date the UMP Request submission is made to Batelco);
 - (b) it retains records of the End User Consent and the retention is in accordance with the reasonable requirements notified to the OLO by Batelco from time to time;
 - (c) it has used its reasonable endeavours to ensure that the information in the UMP Request is complete and correct;

**ANNEX B: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Clean version)**



- (d) the processing of each UMP Request, at the time it is lodged, does not breach any party's contractual or other rights (but, for the avoidance of doubt, a signed End User Consent shall be deemed to be a valid notice to Batelco to terminate the relevant Batelco services);

9.10 Where there is any allegation of a failure to comply with this Service Description then the parties will apply the dispute resolution process outlined in clause 24 of the Supply Terms.

Indemnity

9.11 Each party indemnifies the other, subject to using all reasonable endeavours to mitigate against the effect of the occurrence of any loss, liability or cost incurred by a party (including third party claims or claims by any End User) caused by a breach of this Service Description.

10 Billing Period

10.1 The Billing Period in respect of the Service shall be 30 days. The Billing Period shall commence on the date of the first billing date of the Batelco billing cycle after installation and may include billing on a pro rata time basis for the period between the UMP Request to the next billing cycle to ensure compatibility with the Batelco billing cycle.

**ANNEX B: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Clean version)**



ANNEX 1 – UMP REQUEST PROCESS

1. UMP Service Request and UMP Swap Request

- 1.1 The OLO shall make a UMP Service Request for the provision of a UMP Service by Batelco to allow the OLO to supply a new or existing service to an End User.
- 1.2 A UMP Service Request shall be in the format notified by Batelco from time to time and be submitted by the means notified by Batelco from time to time.
- 1.3 Batelco will, within 5 Working Days of receipt of any UMP Service Request or UMP Swap Request, notify the OLO whether the UMP Service Request is:
 - (a) accepted; or
 - (b) rejected.
- 1.4 Batelco may reject a UMP Service Request or UMP Swap Request if it:
 - (a) is incomplete or incorrect or illegible or cannot reasonably be understood;
 - (b) does not properly identify the End User, or provide information which does not enable Batelco to identify the Useable Pair;
 - (c) is not submitted in accordance with paragraph 2 of this Annex 1;
 - (d) in the case of a UMP Swap Request, is an UMP Invalid Transfer;
 - (e) has any other material defect which will hinder the completion of the request, notified by Batelco to the OLO at the time of rejection; or
 - (f) was made at a BSN where the OLO has no SNFM service.

In such a case, the OLO will be charged the Rejection, reversal and withdrawal charge per UMP order charge (as set out in Schedule 3 of the Reference Offer).
- 1.5 Batelco may in its sole discretion elect to accept any UMP Service Request notwithstanding that there is any defect in that UMP Service Request if Batelco considers that such defect does not have a material effect on Batelco's ability to process the UMP Service Request and provide the UMP Service.

2. Batches

- 2.1 The OLO shall submit UMP Requests to Batelco in batches of no more than ten requests. Batches shall be:
 - (a) submitted by the means notified by Batelco from time to time;
 - (b) submitted by authorised personnel of the OLO;
 - (c) made up of only UMP Requests that comply with the requirements of this Service Description and the Supply Terms; and

**ANNEX B: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Clean version)**



(d) identified by a unique batch number generated by the OLO.

2.2 Batelco will only accept batches of UMP Requests that:

- (a) are delivered to Batelco during business hours (for the avoidance of doubt submission received after business hours will be deemed to have been received on the next working day);
- (b) comply with the requirements set out in paragraph 1 of this Annex;
- (c) do not exceed the maximum number of two batches per day.

2.3 When a batch of UMP Requests contains one or more Requests that contain one or more defects, Batelco will:

- (a) reject the defective UMP Requests by returning them to the OLO; and
- (b) continue to process the valid UMP Requests within the same batch.

3. Completion of Request

3.1 When Batelco notifies the OLO that the UMP Request is accepted, then Batelco shall use its reasonable efforts to complete the UMP Request on or before the Implementation Date.

3.2 Batelco shall put on hold a UMP Request if:

- (a) The relevant UMP Service cannot meet Service Qualification;
- (b) An authorised person from the End User or the OLO is not available to provide further information when requested and has been contacted at least twice.

3.3 For the avoidance of doubt, Batelco shall notify the OLO in writing once a UMP Request is on hold and shall resume the process as soon as the reason for putting on hold the request as per 3.2 above is satisfied accordingly and brought to Batelco's notice in writing by the OLO.

3.4 Any Service Levels and Service Credits shall not be considered during the period which the UMP Request is put on hold as a result of paragraph 3.2 above.

3.5 Once a request is successfully completed, the OLO will be charged the connection charge (as set out in Schedule 3 of Batelco's Reference Offer).

4. Notification of Completion of Request

**ANNEX B: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Clean version)**



- 4.1 Batelco shall, within 2 Working Days of completion of a UMP Service Request, notify the OLO of completion.
- 4.2 Batelco is entitled to rely on a UMP Request as evidence that the relevant End User has given an End User Consent in relation to the requested UMP Request and understands and is aware of the End User's continuing liability to pay any charges to Batelco when due.

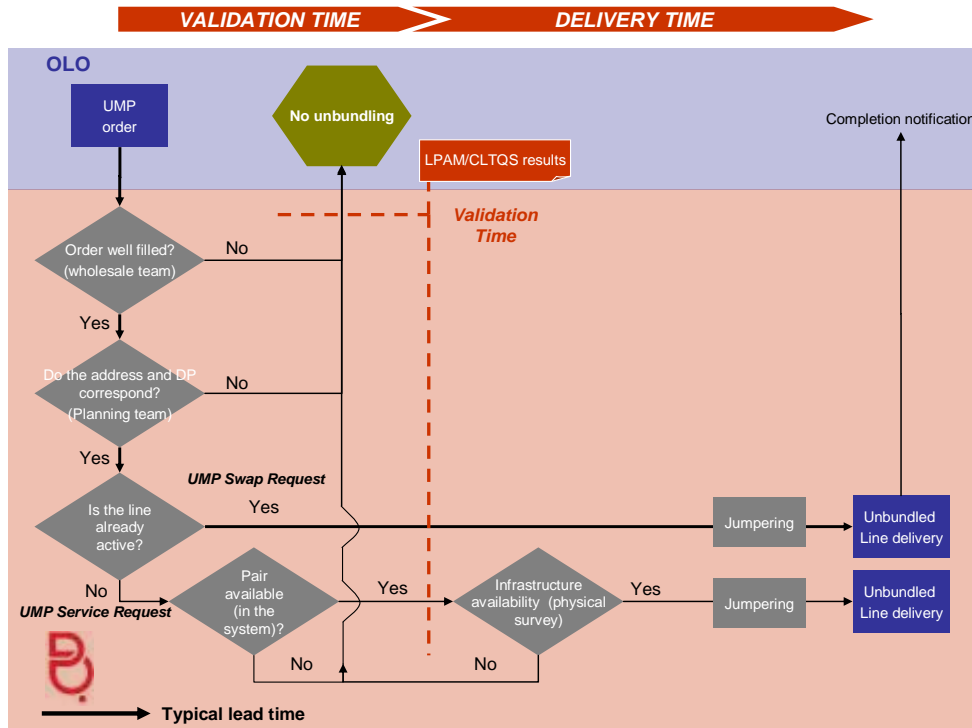
5. UMP Cease Request

- 5.1 At any time following the successful completion of a UMP Request, either:
 - (a) the relevant End User; or
 - (b) the OLO;may make a request to Batelco to cease the UMP Request.
- 5.2 Batelco will, within 2 Working Days of completion of a UMP Cease Request notify the Gaining and Losing OLOs that the UMP Cease Request has been processed.
- 5.3 The OLO will be charged the Cessation charge (as set out in Schedule 3 of Batelco's Reference Offer).

The following diagram(s) are for illustrative purposes only. Where there are discrepancies, the text in this Service Description will prevail.

LLU Reference Offer Order

ANNEX B: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Clean version)

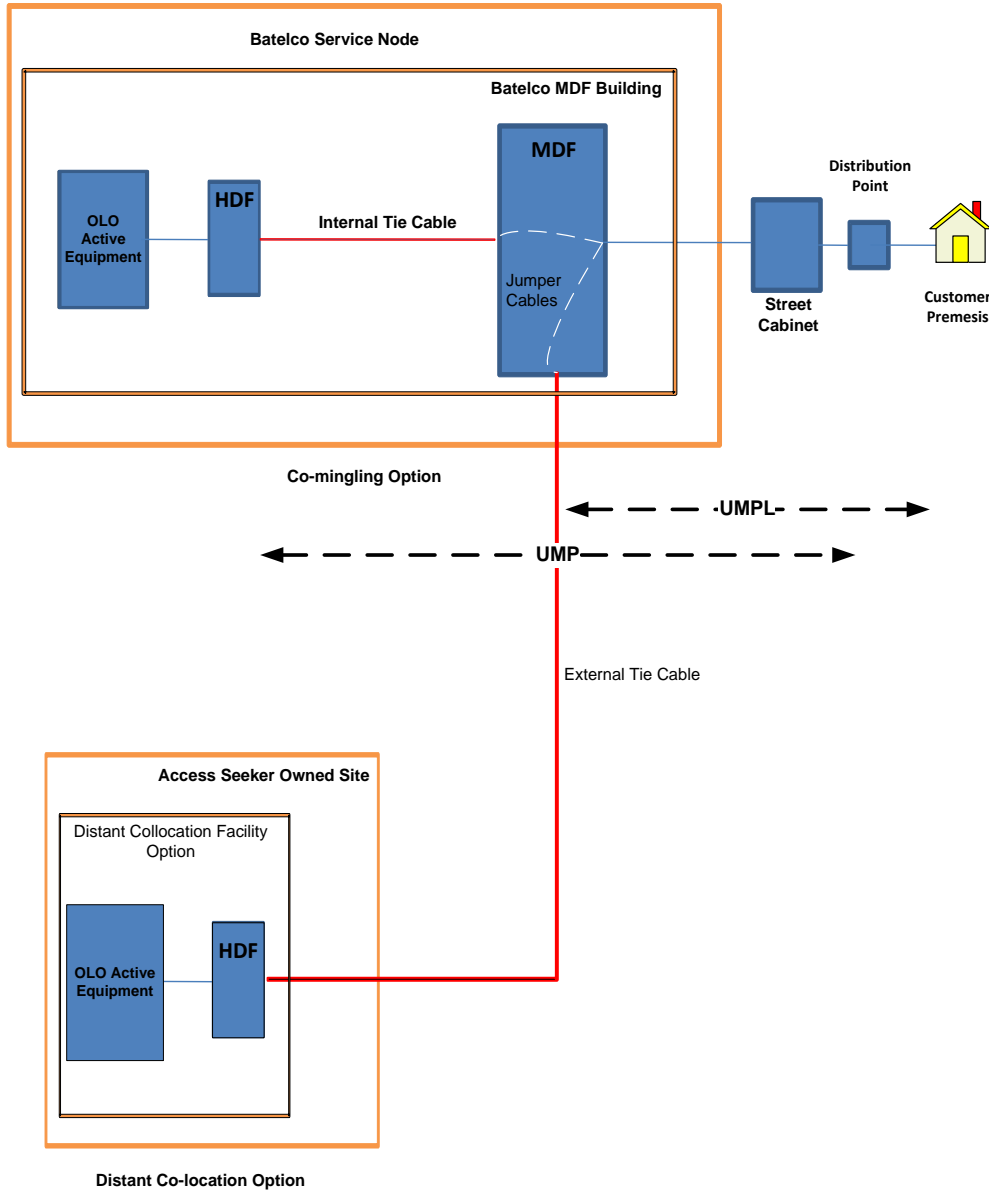


**ANNEX B: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Clean version)**

ANNEX 2 Technical UMP diagram (to be read with the SNFM service description)

Commingling and Distant OLO Space

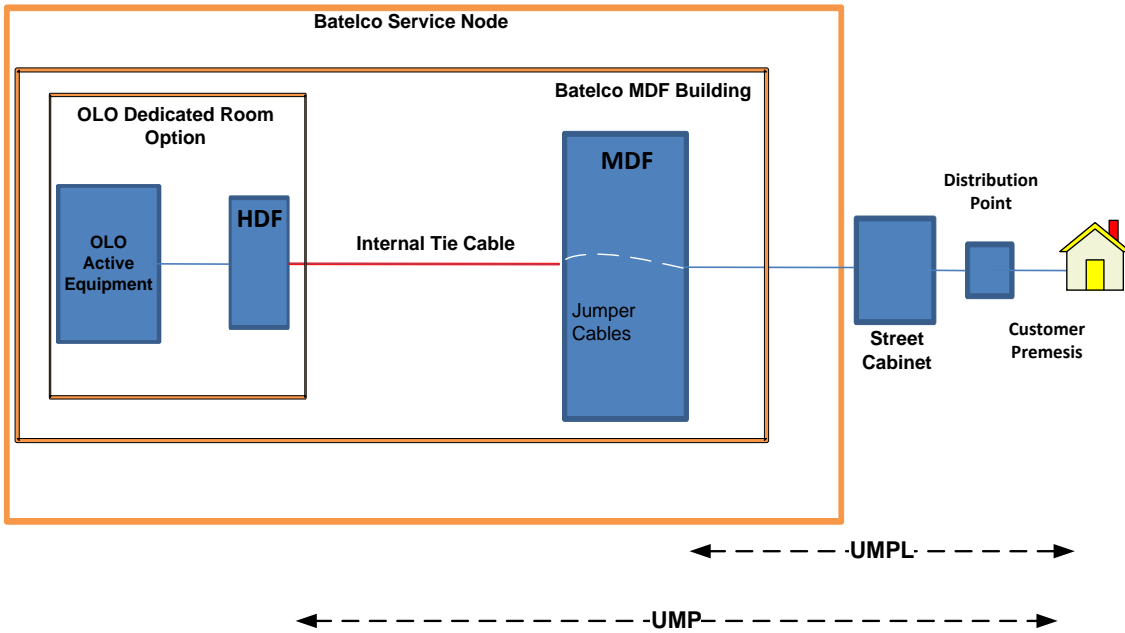
The following diagram(s) are for illustrative purposes only. Where there are discrepancies, the text in this Service Description will prevail.



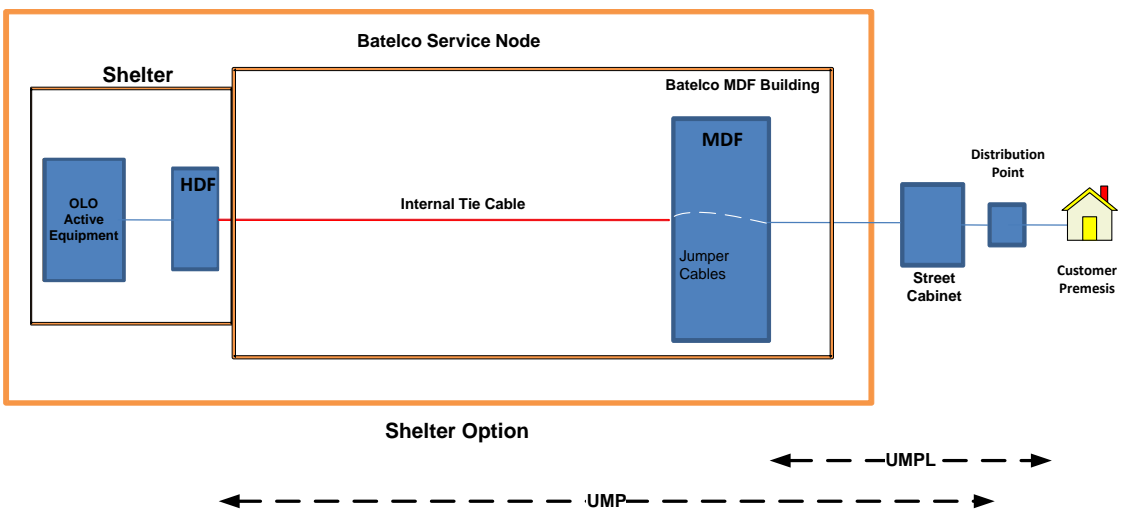
ANNEX B: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Clean version)



Dedicated OLO Space



Licensed Shelter Space



**ANNEX B: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Clean version)**



ANNEX 3 UMP CHARGES

The OLO shall pay to Batelco the relevant Charges determined in accordance with Schedule 3 of Batelco's Reference Offer.

**ANNEX B: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Clean version)**

ANNEX 4 METALLIC PATH SPECIFICATION

This specification has been produced by Batelco Networks in order to provide OLOs with the parameters of the Batelco MP. This document is provided for technical guidance only and highlights the general characteristics of the Batelco MP for information only rather than detailing specific characteristics of the particular UMP as supplied by Batelco as part of the UMP Service. The document does not form part of the legally binding service description and Batelco Reference Offer, but is produced for information only.

The specification contained in this Annex 4 may be varied by Batelco in accordance with clause 8 of the Supply Terms.

1. Scope

This specification defines the electrical parameters of Batelco MP from the Service Node to the Customer premises. It applies to the MP when the internal wiring and equipment are in isolation.

2. Metallic Path Parameters

The parameters of Batelco MP are defined for the copper pair from the MDF in the Service Node to the NTP in the Customer premises. The Batelco MP must be tested in isolation of the internal wiring and CPEs. The parameters are listed in table 1 below.

Parameter	Value	Notes
Electrical Continuity	The MP is a continuous connection between the MDF in Batelco Service Node to the NTP in the Customer premises.	
Insertion Loss	Max is 10 dB at 1600 Hz	
Loop Resistance	Less than 1200 Ohms	
Insulation Resistance A-B or B-A	Greater than 50 KOhm	Measured using voltage of 100 V DC.
Insulation Resistance Wire - Erath	Greater than 50 KOhm	Measured using voltage of 100 V DC.
Insulation Resistance Wire -	Greater than 50 KOhm	Measured using voltage of

**ANNEX B: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Clean version)**

Battery		100 V DC.
---------	--	-----------

Table 1: Batelco Metallic Path Parameters

2.1 Cables Types

Batelco mainly use two types of cables as follows:

2.1.1. Primary Cable

Designed primarily for installation in ducts in the Primary Side of Batelco Access Network (from MDF at the Service Node to the Cabinets). The conductors in the cable consist of a solid wire of standard annealed copper, smoothly drawn, circular in section, uniform in quality. Each conductor covered with a solid polyethylene compound Type 03 complying with BS 6234. Two appropriately coloured insulated conductors twisted together to form a pair (Each unit contains 25 pairs). The cable is sheathed with black polyethylene and sheath thickness includes the moisture barrier. The cable sheath is pneumatically tested to a pressure of 800 millibars, and sustains a constant pressure of 630 ± 50 millibars.

2.1.2. Secondary Cable

Designed primarily for installation in ducts in the Secondary Side of Batelco Access Networks (from Cabinets to Distribution Points). Each conductor in the cable consist of a solid wire of standard annealed copper, smoothly drawn, circular in section, uniform in quality. Each conductor covered with a solid polyethylene compound Type 03 complying with BS 6234. Two appropriately coloured insulated conductors twisted together to form a pair. The cable is sheathed with black polyethylene and sheath thickness includes the moisture barrier. The interstices of the cable core are completely filled with a compound. The compound is capable, in conjunction with the insulation, of giving a cable lifetime in excess of 25 years, in the environment of Bahrain.

2.2. Cables Gauges

Batelco uses different gauges of cables such as 0.4, 0.5 and 0.63 mm. The cable gauge chosen should be of the smallest which meets the Loop Resistance limit. Cables of lower gauge should be used close to the Service Node and the gauge increased with distance from the Service Node. Figure 1 below shows the typical application of the different gauges in Batelco Access Network and Table 2 below shows the different Cable gauges parameters.

**ANNEX B: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Clean version)**

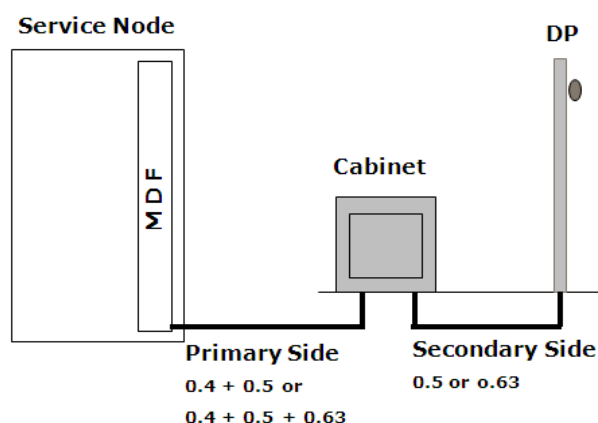


Figure 1: Typical Application of Different Gauges

Cable Gauge (mm)	Loop Resistance (Ω / Km) @ 20 °C	Mutual Capacitance (nF / Km)	Attenuation (dB / Km) @ 1600 Hz
0.4	150	60	2.37
0.5	96	64	1.84
0.63	60	64	1.47

Table 2: Different Cable Gauges Parameters

3. Metallic Path Electrical Termination

The MP consists of two copper wires designated as “A” and “B” wires.

3.1. Network Termination Point Termination

The connection to the MP at the Customer premises is a Batelco Master Socket representing the NTP.

3.1.1. Batelco Master Socket Connections

The connection to the MP is provided by Batelco Master Socket on the face plate. The connections for the socket with Voice and Broadband service are shown in Table 2 below.

**ANNEX B: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Clean version)**

Contact No	Connectivity
1	Not Used
2	“A” or “B” Wire
3	Shunt Connection
4	Not Used
5	“B” or “A” Wire
6	Not Used

Table 3: Batelco Master Socket Connections

The Shunt Connection is derived from the centre point between a 470 KOhm resistor and a 1.8 μ F capacitor connected in series across the “A” and “B” wires. Additionally there is an overvoltage protection device connected across “A” and “B” wires. Figure 2 below shows the circuit diagram.

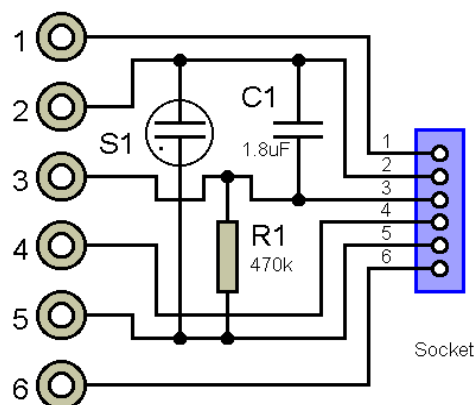


Figure 2: Batelco Master Socket Circuit Diagram

3.2. Main Distribution Frame Termination

In UMP service, no direct access to the MP end is provided at the MDF. Indirect connection is only provided via an Internal or External Tie Cable. The interface to the network end of the MP will be the HDF within the LLU OLO space.

4. Metallic Path Operation

**ANNEX B: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Clean version)**



In order to ensure network integrity, eliminate interference and for safety reasons, the equipment connected to Batelco MP must conform to the ANFP and meet the following technical requirements:

4.1. Power Feeding

The voltage applied to Batelco MP must not at any time exceed 120V of either polarity with respect to earth to either leg of the MP. Voltage measurement should be made using a high internal impedance (10 MOhm) voltmeter.

The current caused to flow should not exceed 60mA between either legs of the MP.

The voltages and currents limits above are absolute including AC signals at any frequency together with any DC power supplied to the CPEs.

4.2. Input Signals

Any signals applied to Batelco MP must conform to Batelco ANFP.

Service Node Facility and Management Service Description

**ANNEX B: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Clean version)**



SERVICE DESCRIPTION 2-B: SERVICE NODE FACILITIES MANAGEMENT SERVICE

1. THE SERVICE

The SNFM Service is an access service more particularly defined below which together with the UMP Service enables the **OLO** to provide the full useable spectrum of a dedicated metallic path to an end user.

Available To: Holders of an appropriate Individual Telecommunications or Class License granted by the Telecommunications Regulatory Authority.

Traffic: N/A

2. DEFINITIONS

Capitalised terms not defined in this Service Description are defined in the Dictionary of the Supply Terms. Terms defined in this Service Description are specific to it.

ANFP means the Access Network Frequency Plan which is a spectrum management plan for controlling interference, caused by cross talk, within a metallic access network as reviewed and amended from time to time

Batelco Service Node (BSN) means a Batelco exchange building specified in the list issued by Batelco.

Co-mingling means co-location space where the OLO Equipment is installed in a BSN in an area which may also house Batelco or other Licensed Operator Equipment unpartitioned from the OLO Equipment and from each other.

Contact Person means Batelco's personnel who can be contacted any time by staff and contractors of the OLO who need to enter the SNFM space. Batelco guarantees that in case the Contact Person cannot be reached, another official from Batelco can be reached 24 hours a day, seven days a week.

Dedicated OLO Space means a room or caged area within a BSN where an OLO has a Licensed Floor Area.

Distant OLO Space means an area owned leased or controlled by the OLO near to a BSN containing OLO Equipment which is intended to be connected to a Batelco UMP by means of an External Tie Cable.

Implementation Date means the date set out in an Order for a SNFM Service which shall be determined in accordance with the timescales set out in clause 11.11 of the Supply Terms.

Licensed Shelter Space means a ground area or areas within the perimeters of but not inside a BSN occupied by an OLO under a license where the OLO's Equipment is installed as more particularly shown in the plan attached to that license or any other such ground area which may be licensed if relocation takes place.

**ANNEX B: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Clean version)**

MDF means the Batelco owned main distribution frame in a BSN enabling provision of a UMP.

Network Boundary means the Batelco distribution point at customer premises contemplated by Batelco's fixed services license.

OLO Equipment means all Equipment compliant with the ANFP or other equivalent specification, provided by the OLO necessary to support the End User's ability to use a UMP Service.

Point of Presence (POP) means an aggregation or network connection point in the OLO's Network located at premises owned or shown to be leased by the OLO or at a Batelco collocation facility, but for the avoidance of doubt cannot be at an End User Premises, cable station, earth station, manhole, power room, lead-in pipe, duct, outdoor cabinet, MDF, riser room or anywhere not on the main island of Bahrain unless connected by a permanent physical connection above sea level and accessible by the Batelco.

SNFM Delivery Rebate Cap means 20% of the monthly License Fee for the SNFM Space.

SNFM Space means where applicable, Licensed Floor Space, Licensed Shelter Space, Dedicated OLO Space or Distant OLO Space.

SNFM Delivery Rebate Cap means 20% of the monthly License Fee for the SNFM Space.

SNFM Service means the Service Node Facilities Management Service.

SNFM Service Credit means, in relation to a single Service Credit, that amount represented by 5% of monthly charge of the License Fee.

SNFM Validation Rebate Cap means 20% of the monthly License Fee for the SNFM Space.

UMPB Link means a dedicated transmission service between an OLO's active equipment used to provide End Users with a service based on the UMP Service and the OLO's Point of Presence provided in accordance with this Service Description and the Supply Terms.

UMPB Service Initial Point means an optical (or Electrical) distribution frame which is the handover frame for the connection between the backhaul and the OLO's- transmission equipment established for the purposes of supporting UMP backhaul capacity in Bahrain.

UMPL means an existing two wire metallic path connection between a Batelco MDF and the Network Boundary

3. SERVICE TERMS

3.1 The SNFM Service in each BSN comprises:

- (a) SNFM Space being Co-mingling, Dedicated OLO Space and Licensed Shelter Space.

**ANNEX B: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Clean version)**



- (b) Licensed Shelter Space – provided by the OLO – maximum 10 sq meters (subject to availability).
- (c) Riser room access.
- (d) Raised Flooring.
- (e) Power – DC power only from an electrical distribution board and handed over at the relevant rack with a lug connector or depending upon the OLO's Equipment, direct cable connection(s). DC and AC power supply/backup to the SNFM Space of 3 kW/h which can be increased in increments of 1kW/h up to a maximum of 7kW/h, subject to additional charges and which apply the same interruption and back up protection to this power supply as applies to other OLOs in the BSN.
- (f) Light to a reasonable standard.
- (g) Air conditioning – reasonable temperature and humidity control provided to OLOs Equipment complying with Batelco specifications.
- (h) Access arrangements for OLO staff and outside contractors.
- (i) Building maintenance and repair of the SNFM Space to such standards as is adequate given the age and nature of the facility.
- (j) Cleaning to a reasonable standard.
- (k) Security and caging for Dedicated OLO Space.
- (l) Earthing – standard point to multipoint.
- (m) Fire detection and suppression provided the OLO insures its own Equipment against fire risk.
- (n) Maximum loading being 300kg per square meter for a wooden raised floor and 500kg per square meter for a steel raised floor.
- (o) Lead in trays for Tie Cables and/or for UMP Backhaul.
- (p) Cage fixing (on request of OLO) in relation to Dedicated OLO Space only.

Please note: rack fixing is not provided or used in the SNFM Space.

3.2 Provision of the SNFM shall be conditional on the OLO:

- (a) entering into a SNFM License substantially in the form of Annex 1 in respect of each BSN.
- (b) providing a statement of conformity with the ANFP.
- (c) providing a copy of type approval certificates as described in paragraph 3.3 (c) below.

**ANNEX B: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Clean version)**



- (d) providing of relevant and valid insurance documentation as specified under paragraph 9 of this Service Description and clause 17 of the Supply Terms.
 - (e) Completion of the relevant security requirements for OLO staff and contractors as specified and referred to under paragraph 4.4 and Annex 3 of this Service Description.
- 3.3 The OLO shall ensure that any Equipment connected to the UMPL:
- (a) meets the specifications and requirements defined by relevant international telecommunications and engineering standards;
 - (b) the ANFP; and
 - (c) is type approved equipment under article 38 of the Telecommunications Law and/or any type approval regulation issued by the Regulator.
- 3.4 If Batelco terminates this Service in whole, then each SNFM License will terminate after expiry of the relevant notice period.
- 3.5 If a regulatory obligation to support or supply any specific SNFM Service no longer applies, Batelco may cease to supply the SNFM Service to an OLO on 12 months prior written notice. Following the giving of a notice under this clause, the OLO will not request any new SNFM Services from Batelco unless commercially agreed otherwise between Batelco and the OLO. The OLO will also inform each existing End User that the SNFM Service will terminate at the end of the 12 month period.
- 3.6 For the avoidance of doubt, Batelco may continue to provide and the OLO may continue to request this service from Batelco on commercial terms agreed mutually between Batelco and the OLO.
- 3.7 Where Batelco has reasonable objective grounds to consider that the OLO is in breach of an obligation under this Service, Batelco may, subject to TRA's approval:
- (a) suspend implementation by the OLO of the SNFM Service; and/or
 - (b) take any other step contemplated by the Supply Terms to protect Batelco's network or other interests.
- 3.8 Batelco will make available to OLOs through the General Information request, the list of the BSNs available for unbundling as approved by TRA and updated from time-to-time. For the avoidance of doubt, OLOs may request Batelco to seek TRA's approval to unbundle a BSN not marked as available for unbundling provided that it submits with its request a valid reason. In all cases, it shall be TRA's sole decision to make available a BSN for unbundling subject to security and technical feasibility assessment.

**ANNEX B: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Clean version)**

4. SNFM SPACE

- 4.1 Batelco shall provide the SNFM Space using the order procedure specified in Schedule 7 (“Facilities Access Service”) of the Reference Offer. In relation to Co-mingling, Dedicated OLO Space and Licensed Shelter Space, the parties shall enter into a SNFM License in the form set out in Annex 1 of this Service Description.
- 4.2 Unless the OLO specifically requests otherwise or there is no space available, the SNFM Space shall be commingled inside the secure space of the facility and the OLO acknowledges that other Batelco customers and Batelco will have co-mingled access to the SNFM and OLO Equipment.
- 4.3 Subject to paragraph 4.4 below, Batelco shall provide the OLO with access to the SNFM Space to allow the OLO’s People to access the SNFM Space in order to enable the OLO to perform their obligations under this Service.
- 4.4 The OLO’s People shall observe all of Batelco’s instructions and procedures relating to this Service, including Batelco’s security and site regulations. Nothing in any guidance, instruction or policy can be taken to mean that Batelco assumes any risk or responsibility in relation to the OLO’s service, Equipment or People. An indicative summary of the current security procedures and policies is set out in Annex 3 of this Service Description. Upon completion and acceptance of the Service Request form for this SNFM Service, the OLO shall request and Batelco shall provide a copy of Batelco’s summary security procedures which shall be amended from time to time in Batelco’s absolute discretion. Enquiries about the details of any policy or procedure should be directed to the OLO’s account manager at Batelco.
- 4.5 Batelco will provide a safe working environment for any OLO People at the SNFM Space. The OLO shall indemnify Batelco against all claims, charges, costs or expenses in any way relating to injury to or death of any OLO People at or in the environs of the SNFM Space that is not caused by Batelco, and against all loss of or damage to the OLO Equipment or any other Batelco customer’s Equipment at the SNFM Space in any way connected with the OLO’s use of the SNFM Space that is not caused by Batelco.
- 4.6 The OLO understands and agrees that third parties such as the emergency services and law enforcement agencies may have a legal right of entry to SNFM Space and the surrounding area at any time.
- 4.7 OLO may enter the SNFM Space solely for the purposes of installing, inspecting, maintaining, adjusting, repairing, altering, replacing or removing OLO Equipment within the SNFM Space in accordance with the SNFM License. The OLO is not permitted to enter any other part of the BSN.
- 4.8 All OLO access shall be escorted access, which comprises the provision of Batelco staff to escort the OLO’s People to and from the SNFM Space. Where Batelco’s policies require supervision at the SNFM Space, this will be at the OLO’s cost.

5. GENERAL SERVICE TERMS

- 5.1 The OLO acknowledges:

**ANNEX B: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Clean version)**

- (a) The components of this Service are provided together and with the UMP Service for the relevant BSN and are not severable. If either party terminates any of the components of the SNFM Service then all elements of the SNFM and UMP Services will terminate.
- (b) The SNFM Service comprises the SNFM Space and additional support services set out in this service description;
- (c) This SNFM Services does not allow personnel of the OLO physical access to any relevant Facility unless expressly stated in this service description.

5.2 Ordering

- (a) The OLO shall submit a correctly completed Order to Batelco to request supply of the SNFM Service in accordance with this service description and the Supply Agreement. The Order shall be submitted in the form specified by Batelco from time to time.
- (b) To be valid, the Order shall be accompanied by a matching UMP and/or UMPB Link order for the relevant BSN to enable Batelco to implement the relevant SNFM Space. This applies only when the OLO requires the backhaul to be provided by Batelco.
- (c) Subject to Batelco accepting the Order, and the OLO fulfilling all of its obligations under the Supply Terms, Batelco will provide and the OLO will acquire the SNFM Service as specified in the Order accepted by Batelco.
- (d) The provision of the SNFM Service is available as set out below, subject to availability of space, capacity and related equipment.

5.3 Variation

Batelco may at any time on reasonable notice, which shall be in all cases not less than 3 months, to the OLO change the technical specification of the Service provided that any such change does not materially affect the substance of the performance of the Service.

5.4 Validation and Delivery Times

- (a) The maximum validation time and delivery lead time for the installation for an Order placed by the OLO and accepted by Batelco shall be as follows:

SNFM Service component	Validation time between receipt of Order and acceptance or rejection of that Order	Delivery time from Batelco acceptance and receipt of Charges in advance

**ANNEX B: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Clean version)**

Co-mingling excluding the following BSN (MAN, RIF, CEN, MHQ, JUF and ITN)	5 Working Days	65 Working Days
Co-mingling for the following six BSN (MAN, RIF, CEN, MHQ, JUF and ITN)	5 Working Days	30 Working Days
Dedicated OLO Space	5 Working Days	65 Working Days
Shelter OLO Space	5 Working Days	45 Working Days

- (b) The Service Rebates for a failure to meet the maximum validation time and delivery lead time in the preceding paragraph are as follows:

Target	Rebate for each Working Day or part of a Working Day late
SNFM validation time	One (1) SNFM Service Credit subject to the SNFM Validation Rebate Cap
SNFM delivery time	One (1) SNFM Service Credit subject to the SNFM Delivery Rebate Cap

6. CHARGES

- 6.1 The OLO shall pay to Batelco the relevant Charges determined in accordance with Schedule 3 of Batelco's Reference Offer.
- 6.2 The Billing Period in respect of the Service shall be 30 days. The Billing Period shall commence on the date of the first billing date of the Batelco billing cycle after installation and may include billing on a pro rata time basis for the period between the date the OLO was informed of the space being ready for it to install its equipment until the next billing cycle to ensure compatibility with the Batelco billing cycle.

**ANNEX B: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Clean version)**



7. FORECASTING

- 7.1 At the beginning of each calendar month, the OLO shall supply a reasonable non-binding forecast of the expected requests for the SNFM Service in each month of the twelve month period following the date of the forecast, in the form required by Batelco from time to time. The OLO shall use all reasonable endeavours to forecast accurately given Batelco is placing reliance on those forecasts to determine the number of requests expected for each month.
- 7.2 The OLO acknowledges that Batelco is not liable for not delivering any additional Orders for the SNFM Service which has not been forecasted in accordance with paragraph 7.1 above.

8. PRIORITY POLICY

- 8.1 The allocation of area within the BSN or within the perimeter of a BSN between OLOs shall follow:
- (a)** For the initial co-location process:
- (i) Batelco informs TRA at the end of the Initial Collocation Period whether or not the Initial Collocation process is required;
 - (ii) OLOs will specify their orders for the Server Node they intend to place an immediate order;
 - (iii) Batelco will determine for each Service Node the best collocation option that will fulfil the demand within one month, based on orders received, and will send OLOs the corresponding collocation prices;
 - (iv) OLOs will have two weeks to confirm their order based on the prices provided by Batelco. Confirmation will be accompanied by a non-refundable advance payment.
- (b)** For the standard co-location process. After the Initial Collocation Period has ended the following collocation rules must be followed:
- (i) First Come First Served: this rule ensures that OLOs that ask for collocation space earlier are served first. As is the case in duct and civil works, the first OLO shall bear all the associated costs and shall be reimbursed by other OLOs coming afterwards on a pro rata basis;
 - (ii) Use It or Lose It: if an OLO has been granted space but has not used this space after 3 months, the space will be released and re-allocated. This will prevent the inefficiencies created by hoarding space;
 - (iii) One single space allocated per OLO per Service Node. Where space is scarce OLOs will be initially restricted to a single space per OLO. This restriction will be reviewed on an exchange-by-exchange basis to ensure proportionality. The definition and dimensions of a "space" is an equivalent of a single rack.

9. INSURANCE

**ANNEX B: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Clean version)**



- 9.1 Until such time as the parties agree otherwise and after obtaining approval of the Authority for such amendment, Batelco and the OLO shall each procure and maintain for the duration of this service third party liability insurance policies with the other being named as a named beneficiary to cover personal injury and property damage claims up to BD300,000 for each BSN. The terms of such policies shall include provisions whereby, in the event of any claim or proceedings under the policy being brought or made against the other party, the insurers shall indemnify the other party against any costs, charges and expenses thereof. At all times the parties shall hold appropriate workman's insurance (General Organisation for Social Insurance ("GOSI")).
- 9.2 Batelco or the OLO shall provide evidence of the insurance cover referred to in paragraph 9.1 on or before the date this service commences and thereafter at any time during the period of this service as the requesting party shall reasonably require. If the requested party is unable to demonstrate to the requesting party's reasonable satisfaction that it has insurance to the required level, with a reputable insurer, the requesting party shall be entitled to effect insurance against all claims, proceedings, losses, liabilities, costs, damages and expenses caused by the other party's negligence, other default or deliberate act arising out of or in connection with this service and to recover the reasonable cost of such insurance from the other party.
- 10. Disputes**
- 10.1 Where there is any allegation of a failure to comply with the warranties of this Service Description then the parties will apply the dispute resolution process outlined in clause 24 of the Supply Terms.

**ANNEX B: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Clean version)**



ANNEX 1 –SNFM License

1. Batelco will grant to the OLO, for the periods set out in clause 2.2 of Schedule 9, a License to use a portion of space in the Batelco Floor/Ground BSN specified in the General Information list identified in an order for SNFM Service access in writing which is signed by Batelco in accordance with the terms of this license, the SNFM Service Description and the Supply Terms.
2. The license does not commence unless and until:
 - (a) an Order for Floor/Ground access is accepted and signed by Batelco;
 - (b) all Make Ready Work has been completed to Batelco's and OLO's satisfaction;
 - (c) all charges for the stages of the process occurring up to and including the completion of Make Ready Work have been paid; and
 - (d) the terms of this license have been signed by the OLO.
3. The license is a personal and non-transferable right. The license does not confer any rights on the OLO to lease, sub-lease or any right of ownership or possession in respect of any specific Floor/Ground. The OLO may not sub-license any right granted by this license.
4. Unless specified in the SNFM Service Description, the OLO does not have any general right to access to Floor/Ground and this license allows the OLO to access the Floor/Ground route only in strict compliance with Batelco's access policies and procedures which apply from time to time relating to security, protection and safety, physical access procedures, marking of equipment. Such access shall be supervised by Batelco at all times.
5. It is a condition of the license that the OLO shall:
 - (a) comply with the policies and directions of Batelco, including in relation to access, movement or relocation of a Floor/Ground route and relocation of the cable from, in, or between, sub-Floor/Grounds
 - (b) behave in a manner consistent with the action of a prudent Floor/Ground owner;
 - (c) so far as access is given, keep all cabling Equipment and all accessed Floor/Ground areas free of debris and in a safe and tidy condition;
 - (d) ensure no toxic or flammable materials are left anywhere near the Floor/Ground or Equipment;
 - (e) promptly notify, for correction or removal, any fault or defect in Equipment used in or near the Floor/Ground; and
 - (f) immediately notify Batelco of any damage to Floor/Ground or Equipment observed or occurring during or as a result of access by the OLO.
6. Batelco may require from the OLO to remove and replace any Equipment which does not comply with any municipal, Ministry or Regulator requirements or restrictions.

**ANNEX B: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Clean version)**



7. For the sake of clarification, maintenance of the OLO Space shall be carried out by Batelco and the corresponding charge is included in the License fee (as set out in Schedule 3 of Batelco's Reference Offer3).
8. If Batelco by reasonable notice to the OLO requires the movement of the OLO's Floor space for Batelco's own convenience then Batelco will cover the cost of moving the Co-mingling/Dedicated OLO Space/Licensed Shelter Space and the OLO may attend to observe at its own expense.
9. If part or all of the Co-mingling/Dedicated OLO Space/Licensed Shelter Space needs to be moved for reasons outside the control of Batelco and by order of a competent court, municipality, authority, Ministry or Regulator, the OLO must share a proportion of charges or costs related to the move of its Equipment, upon justified and reasonable methodology approved by the Regulator.
10. After obtaining written approval from the Regulator, Batelco may immediately suspend provision of the service until further notice if the OLO causes, or Batelco can justify that the OLO will cause, physical or technical harm to any telecommunications network (whether of Batelco or another operator).
11. Batelco may terminate the license granted to the OLO on 30 days written notice to the OLO, copied to the Regulator, if:
 - (a) The OLO is in breach of the UMP Service or SNFM Service description which is left unremedied for a period of 21 days after written notification by Batelco to the OLO;
 - (b) fibre is not lit along the full route of the Floor/Ground access for any consecutive period of 12 months during the term of the license;
 - (c) the OLO ceases to be a Licensed Operator; or
 - (d) the OLO installs Equipment in or near any Floor/Ground which is not reasonably related to services supplied with the UMP and/or does not meet the requirements specified in 3.3 (c) above.
12. Batelco may terminate the license granted to the OLO on 6 months written notice to the OLO, copied to TRA, if Batelco's right to use the Floor/Ground or right of way is revoked, terminates or expires.
13. Either party may terminate the license immediately if the other party is in breach of the license or of the Supply Terms as they relate to the Floor/Ground and the breach remains unremedied for a period of 10 Working Days.
14. The OLO may in any case terminate the license by giving Batelco three months written notice.
15. If the license is terminated then the OLO shall remove all Equipment from, in and around the Floor/Ground within 90 days of the notice of termination. If the OLO fails to comply with this clause then Batelco is entitled to remove the OLO's Equipment at the latter's costs.

**ANNEX B: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Clean version)**



16. The OLO will be deemed to have abandoned the OLO's Equipment if it does not access the Equipment for any period of 24 consecutive months. If the OLO's Equipment is abandoned then Batelco may exercise the same rights as for the removal of OLO Equipment as indicated in paragraph 15 above.

17. The terms of this license take precedence over any other terms which might apply to the OLO's access to Batelco's Co-mingling/Dedicated OLO Space/Licensed Shelter Space.

**ANNEX B: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Clean version)**



SCHEDULE 1 – SNFM License

Licensed Floor/Shelter Area

BSN

Leased/Owned outright by Batelco

Designated Floor Area (sq. meter or percentage)

License fee (annual)

Plan number

Note: the details listed above will be provided and attached to each SNFM License granted to the OLO

LLU Reference Offer Order

**ANNEX B: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Clean version)**



ANNEX 2 SNFM CHARGES

The OLO shall pay to Batelco the relevant Charges as set out in Schedule 3 of Batelco's Reference Offer.

**ANNEX B: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Clean version)**



ANNEX 3 SUMMARY OF SECURITY REQUIREMENTS

1. General Access

- 1.1 All OLO People requiring access to SNFM should have Batelco issued contractor ID Cards. ID holders should report to Security when requiring access.
- 1.2 As an exceptional alternative, OLO People requiring access to SNFM can be registered by Batelco. Registered technicians requiring access to the relevant BSN or site area shall report to Security. Security will check their central population register (“CPR”) or national identity card or other means of photographic ID against the list of OLO authorised People. If everything is correct, Security will issue an appropriate ID Card in exchange for the persons ID; details will be recorded by the security staff.
- 1.3 ID holders or registered technicians will be escorted to and from the SNFM.
- 1.4 Supervision of work whilst the person is inside the relevant BSN or site area is at the discretion of Batelco.

2. Emergency Event Access

- 2.1 No unregistered emergency access will be allowed unless access has been agreed by the Senior Manager Security through liaison with the OLO account manager following notification. The notification should provide relevant personal details, the OLO whose equipment is to be worked on and the date/times(s) of the access required and the circumstances of the emergency.
- 2.2 The persons requiring access shall report to security. Security will check their CPR or other means of photographic ID against the personal details provided to the Senior Manager Security.
- 2.3 If everything is verified, Security will issue an appropriate ID Card in exchange for the persons ID; details will be recorded by the security staff.
- 2.4 The person will be escorted to and from the SNFM.

3. Refusal of Access

- 3.1 Batelco reserves the right to refuse access to any non-registered visitor of the OLO for the reasons below:-
 - (a) Visitors without photographic ID.
 - (b) Visitor who cannot provide a valid contact name and number.
 - (c) Visitors whose contact person cannot be contacted or reached.
 - (d) Visitors who have disregarded rules in the past.

LLU Reference Offer Order

**ANNEX B: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Clean version)**



- (e) During times of emergency.

**ANNEX B: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Clean version)**



ANNEX 4 -PROCEDURE FOR REMOTE SITE ACCESS BY OTHER COMPANIES' STAFF

1. Other companies' staff will be given co-location access rights, they will go through normal procedure of completing a contractor's work notification (CWN) whereby all applications will undergo a thorough screening process (Ministry of Interior vetting procedures which may take up to 2 working days). Once clearance is received, passes will be issued to the other companies' staff.
2. Working Hours (from 7 a.m. to 2:45 p.m. daily except Fridays, Saturdays, and public holidays):
 - (a) Other companies' staff will only be given permission to access the remote site(s) pedestrian gate during working hours.
 - (b) Other companies' staff will be escorted by Batelco staff at all times.
 - (c) Batelco's escorting staff member will be given remote access to the site's main entrance door.
 - (d) Once both other companies staff and Batelco's staff member arrive in the lobby of the building, access will be given once Batelco's staff member has called the control room via hotline phone to remotely unset the alarm.
 - (e) If work is completed Batelco's staff member will have to call the control room to reset the alarm.
3. After working hours – call out:
 - (a) Batelco staff will call the control room of the relevant site three hours in advance when it becomes necessary to attend to a fault or maintenance work.
 - (b) Other companies' staff will be escorted by Batelco staff at all times.
 - (c) Once both Other Companies Staff and Batelco's staff member are in the lobby of building, access will be given once the Batelco staff member has called the control room via hotline phone to remotely unset the alarm.
 - (d) If work is completed Batelco staff member will have to call control room to reset the alarm.
4. If no prior arrangement made by Batelco's staff or other company's staff to do installation work after working hours, no access will be given by Batelco's security staff. If Batelco's security staff did receive prior notice that installation work will be done after working hours, the other companies' staff will still need to be escorted by Batelco staff. Maintenance work, (call-outs for fault attending) will be treated as a separate case.

UMP Backhaul Service Description

**ANNEX B: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Clean version)**

SERVICE DESCRIPTION 2-C: UMP BACKHAUL SERVICE

1. THE SERVICE

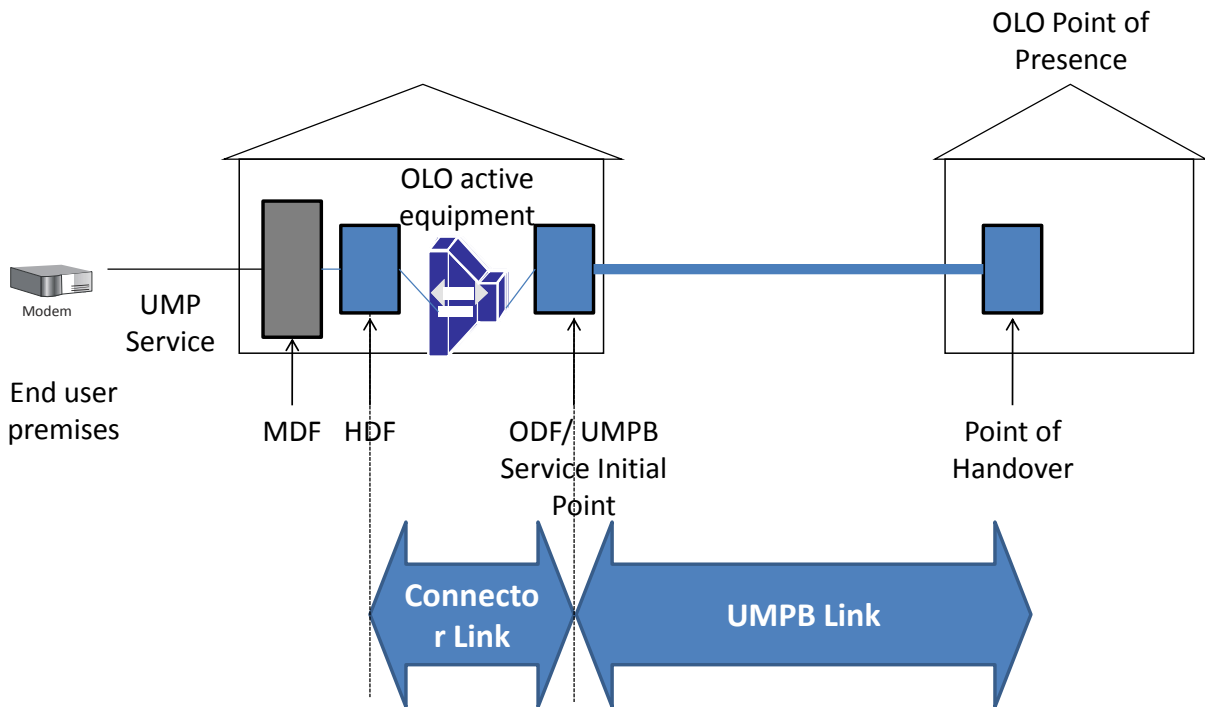
The UMP Backhaul Service is a wholesale service for carrying OLO’s traffic within Bahrain in relation to the UMP between an OLO’s active equipment used to provide End Users with a service based on the UMP Service and the OLO’s Point of Presence.

Available To: Holders of an appropriate Individual Telecommunications or Class License granted by the Telecommunications Regulatory Authority.

Permitted Traffic: Traffic covered by the OLO’s license.

Technical backhaul diagram

The following diagram is for illustrative purposes only. Where there are discrepancies, the text in this Service Description will prevail.



2. DEFINITIONS

Capitalised terms not defined in this Service Description are defined in the Dictionary. Terms defined in this Service Description are specific to it.

Connector Link means a connection provided by the OLO between the HDF used for the UMP Service and the UMPB Service Initial Point

Covered Failure means an actual or suspected fault or failure in the UMPB Link

**ANNEX B: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Clean version)**



Delivery Lead Time means the delivery lead time described in paragraph 3.3.

End User Premises means a permanent physical location in Bahrain owned or controlled by a person or organisation who is neither a licensee, nor affiliated to or controlled by a licensee, and from which location that person conducts business and receives telecommunication services.

UMPB Availability Rebate Cap means 20% of the monthly rental Charges for the UMPB Link.

UMPB Link means a dedicated transmission service between the UMPB Service Initial Point and the Point of Handover at an OLO's Point of Presence provided in accordance with this Service Description and the Supply Terms.

UMPB Service Initial Point means an optical distribution frame which is the handover frame for the connection between the backhaul and the OLO's- transmission equipment established for the purposes of supporting UMP backhaul capacity in Bahrain.

Response Time means Batelco's Response Times in respect of each Covered Failure measured over a period of one (1) month..

Restoration Time means Batelco's Restoration Times in respect of each Covered Failure measured over a period of one (1) month.

Order means a written request by the OLO for the UMPB Service in a form issued or approved by Batelco from time to time.

Point of Handover has the meaning defined in paragraph 3.1 (c).

Point of Presence means an aggregation or network connection point in the OLO's Network located at premises owned or shown to be leased by the OLO, but for the avoidance of doubt cannot be at an End User Premises, cable station, earth station, manhole, power room, lead-in pipe, duct, outdoor cabinet, MDF, riser room or anywhere not on the main island of Bahrain unless connected by a permanent physical connection above or under sea level and accessible by Batelco.

Service Commencement Date for each Order for the UMPB Service shall be the date identified in accordance with paragraph 3.3.

Service Period means the term of a UMPB Service which shall be a minimum of twelve months from the Service Commencement Date and which continues automatically until terminated.

Service Credit means, in relation to a single Service Credit, that amount represented by two percent (2%) of the monthly Charges for the UMPB Service.

Target Availability means the amount of time over a month during which the UMPB Service does not suffer a certain type of failure (expressed on a percentage basis).

Threshold Response Time means, in relation to a Covered Failure, the threshold response times set out in paragraph 3.6(b).

**ANNEX B: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Clean version)**



Threshold Restoration Time means, in relation to a Covered Failure, the threshold restoration times set out in paragraph 3.6(b).

Total Service Credit Cap means, in relation to any month, 160% of the monthly Charges for the UMPB Service.

3. TERMS

3.1 Nature of Service

- (a) The Service comprises the UMPB Link set out in this service description which Batelco offers to provide.
- (b) The UMPB Link is a component which an OLO may require to connect to the UMP Service. For the avoidance of doubt, other network components or services will be necessary to complete the connection including the SNFM Service and are available from Batelco.
- (c) The Point of Handover for the UMPB Service at the OLO's Point of Presence is an optical distribution frame located at the OLO's Point of Presence.
- (d) The UMPB Service presentation interface to the OLO will be optical or electrical.

3.2 Ordering

- (a) The OLO shall submit a correctly completed Order to Batelco to request supply of the UMPB Service in accordance with the Supply Terms. The Order shall be submitted in the form specified by Batelco from time to time.
- (b) To be valid, the Order shall be accompanied by reference information identifying the UMP Service order to enable Batelco to implement the UMPB.
- (c) Subject to Batelco obtaining all necessary consents and the OLO fulfilling all of its obligations under the Supply Terms in particular provisioning and installation of the Connector Link, Batelco will provide and the OLO will acquire the UMPB Service as specified in the Order accepted by Batelco.
- (d) The provision of the UMPB Service is available at the bandwidths greater than 2Mbps and Charges as per the CAT/LLCO services and any potential Carrier Ethernet based services that Batelco may introduce, subject to availability of capacity and related equipment.

3.3 Delivery and Installation Lead Times for UMPB

**ANNEX B: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Clean version)**

- (a) The maximum Delivery Lead Time for the installation of a UMPB Service for an Order placed by the OLO and accepted by Batelco will be 30 Working Days.
- (b) The Service Rebates for a failure to meet the Delivery Lead Time in the preceding paragraph are as follows:

Actual provisioning time (Number of weeks after expiration of the applicable Delivery Lead Time)	Total applicable service Rebate
0-1 week	10 Service Credits
1> - 2 weeks	25 Service Credits
> 2 weeks	45 Service Credits (and an addition of 30 Service Credits for each further period or part period of 2 weeks delay)

This is subject to a UMP Service and an SNFM Service being implemented and provisioning of the Connector Link and Equipment related to the UMPB Service by the OLO.

3.4 Testing

**ANNEX B: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Clean version)**

- (a) Batelco will test the UMPB Link by conducting an industry standard stability test for up to 24 hours, the final results of which will be observable by the OLO if they are in attendance. The complete final results of the test shall be handed over in writing to the OLO (including latency tests). Batelco will notify the OLO when the test has been successfully completed and the OLO will accept the UMPB Service on that date by acceptance signature. If the OLO does not sign for acceptance it will be deemed to have accepted the UMPB Service with effect from the date of the notification of test completion unless the OLO notifies Batelco within two days from the notification of test completion that the OLO does not accept the UMPB Service indicating the reason for not accepting the UMPB Service.
- (b) The Service Commencement Date is the date of actual or deemed acceptance under paragraph 3.4(a).
- (c) Batelco is available (if requested by the OLO) to support testing of the connection between the OLO's Point of Presence and the relevant MDF in the BSN as arranged by the OLO, in each case by attending the OLO's Point of Presence to conduct such testing at Batelco's standard rates.

3.5 Performance and uptime

- (a) The Target Availability for the UMPB Service is set out below, including the Service Rebate regime that will apply if the relevant Target Availability falls below the stated threshold:

Calculation	Target Availability	Service Rebate
Target Availability for periods free of Covered Failure	99.9%	2 Service Credits per 0.01% or part thereof below the Target Availability but not exceeding the UMPB Availability Rebate Cap

- (b) For the protection line provided by Batelco as part of the backhaul (45Mbps and higher speeds), specifications of the protection line shall be provided by Batelco to the OLO upon request.

3.6 Fault response and repair

- (a) The OLO will as soon as practicable after becoming aware of a Fault with the UMPB Link or any other Covered Failure, notify Batelco of that Fault in

**ANNEX B: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Clean version)**

accordance with the procedures for the reporting of faults set out in Schedule 6 (Fault Management) of Batelco's Reference Offer for the reporting of faults, Fault investigation and identification of the Fault Owner and Other Affected Party.

- (b) Batelco agrees to observe the following Response Times and Restoration Times:

Fault type	Response Time	Restoration Time	Threshold Response Time	Threshold Restoration Time
Covered Failure	10 minutes	3 hours	15 minutes	5 hours

- (c) Where Batelco's Response Time or Restoration Time exceeds the Threshold Response Time or Threshold Restoration Time respectively for Covered Failures then the following Service Rebates, assessed on a quarterly basis, will apply:

Fault type (as defined in Schedule 6)	Time by which Mean Response Time exceeds Threshold Response Time	Service Rebate	Time by which Mean Restoration Time exceeds Threshold Restoration Time	Service Rebate
Covered Failure	15 minutes	4 Service Credits	1 hour	4 Service Credits
	1 hour	5 Service Credits	2 hours	5 Service Credits
	> 1 hour	6 Service Credits	> 2hours	6 Service Credits + 1 Service Credit for every additional hour

3.7 Alternative Transmission Facilities

**ANNEX B: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Clean version)**



Batelco shall in respect of the provision of the UMP Service only facilitate the provision of a dedicated transmission service by the OLO or a third party Licensed Operator using relevant Facilities and following the procedure under schedule 7 (“Facilities Access Service”) of Batelco’s Reference Offer in relation to a BSN being:

- (a) duct licensed by Batelco under a Duct license;
- (b) non-exclusive access to the Duct chamber; and
- (c) where necessary the provision of alternative dedicated transmission service-riser room and cable tray access granted to the OLO or to the third party Licensed Operator substantially in the form of Batelco’s standard duct and riser licenses as amended from time to time subject to the Charges specified under Schedule 3 of the Reference Offer. Batelco shall not be liable to the OLO in any way whatsoever in respect of termination of these arrangements with the third party Licensed Operator.

3.8 Termination

- (a) At any time after the minimum Service Period of (6) six months, the OLO shall be entitled to terminate an UMPB Service agreement on three month’s written notice to Batelco.
- (b) Where termination occurs before the end of the minimum service period or within the notice period then the OLO shall pay to Batelco by way of liquidated damages the charges for the UMPB Service until the end of the notification period or the minimum service period whichever is greater.

3.9 OLO Obligations

- (a) The OLO shall provide Batelco with suitable space for, and access at reasonable times to, any Batelco equipment required to be located in any building under the OLO’s control in which the UMPB Service is located. If consent is required from a third party, the OLO shall procure such consent. Batelco is not required to pay the OLO or any third party for the preparation or use of, or access to, space provided for the purpose of the UMPB Service.
- (b) If Batelco equipment requires a continuous electricity supply (of the nature specified by Batelco), air conditioning and electricity connection points, they shall be supplied, in the location specified by Batelco, by the OLO at its expense. Such electricity shall be available at the same level of supply, protection and continuity as that available to the OLO’s own equipment.

**ANNEX B: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Clean version)**



- (c) The OLO shall provide Batelco and any employee, agent, affiliate or contractor of Batelco with all information and assistance that person may reasonably require to test, commission and maintain the UMPB Service and to assess, respond to and restore Covered Failures.
- (d) Where there is any allegation of a failure to comply with the warranties of this Service Description then the parties will apply the dispute resolution process outlined in clause 24 of the Supply Terms.

3.10 Variation

Batelco may at any time on reasonable notice, in all cases being not less than 3 months, to the OLO change the technical specification of the Service provided that any such change does not materially affect the substance of the performance of the Service.

4. CHARGES

- 4.1 The OLO shall pay to Batelco the relevant LLCO/CAT Charges determined in accordance with Schedule 3 of Batelco's Reference Offer.

**ANNEX B: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Clean version)**



UMP Specific Information Service Description

**ANNEX B: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Clean version)**



SERVICE DESCRIPTION: UMP SPECIFIC INFORMATION SERVICE

1. THE SERVICE

The UMP Specific Information Service is a wholesale service for providing information solely for use in relation to the UMP Service.

Available To: Holders of an appropriate Individual Telecommunications or Class License granted by the Telecommunications Regulatory Authority.

2. DEFINITIONS

Capitalised terms not defined in this Service Description are defined in the Dictionary. Terms defined in this Service Description are specific to it.

Batelco Service Node (BSN) means a Batelco exchange building specified in the list issued by Batelco.

CLTQS means Batelco's centralized line testing and pre-qualification solution.

HDF means Batelco provided handover frame for the connection of a Tie Cable.

MDF means the Batelco owned main distribution frame in a BSN enabling provision of a UMP.

Network Boundary means the Batelco distribution point at customer premises contemplated by Batelco's fixed services license.

SNFM Service means the Service Node Facilities Management Service used in conjunction with this service description as specified in service description 2-B of the Reference Offer.

Specific Information means the information to be provided by Batelco to the OLO as specified in paragraph 3.1 (b) below.

Specific Information Delivery Rebate Cap means 20% of the Specific Information Charge.

Specific Information Service Credit means, in relation to a single Service Credit, that amount represented by 5% of the Specific Information Charge.

Specific Information Validation Rebate Cap means 20% of the Specific Information Charge.

Tie Cable means a cable connecting the UMP from the MDF to the HDF provided by Batelco.

**ANNEX B: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Clean version)**



UMP means an existing two wire metallic path connection between the HDF and the Network Boundary comprising a UMPL, jumper cable connecting the UMPL and the Tie Cable, and Tie Cable connecting the MDF with the HDF.

UMPL means an existing two wire metallic path connection between a Batelco MDF and the Network Boundary.

3. TERMS

3.1 Nature of Service

- (a) The Service comprises the provision by Batelco to the OLO of information detailed under (b) below:
 - i. where that information is reasonably available;
 - ii. on an Order request basis; and
- (b) Subject to 3.1 (a), the Specific Information comprises at the BSN level:
 - i. The number of active lines;
 - ii. The number of non-active lines;
 - iii. The geographical location, a boundary map and list of contiguous address blocks and a free helpdesk line to answer questions regarding contiguous addresses;
 - iv. The average length of the UMPLs (in meters);
 - v. Power availability at each BSN for the SNFM Service;
 - vi. BSN space availability for the SNFM Service;
 - vii. UMPL entry points (being the first joint box nearest to the BSN) and Duct capacity availability;
 - viii. UMPL characteristics (being diameter, results from any quality tests solely on the UMPL itself, technical interference, control and, where not comprised in the ANFP, spectral management plan information); and
 - ix. Results of any xDSL tests performed by Batelco not comprising Batelco's centralised line testing qualification system or CLTQS information.
- (c) The parties acknowledge and agree that the Specific Information shall be treated as Confidential Information under these Supply Terms.
- (d) Each party acknowledges and agrees that the helpdesk service under b (iii) above is intended as a supporting service only to the provision of boundary maps and contiguous address lists. The OLO should consult this information first before calling the helpdesk.

3.2 Ordering

The OLO shall submit a correctly completed Order to Batelco to request supply of the UMP Specific Information Service in accordance with this Service

**ANNEX B: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Clean version)**



Description and the Supply Terms. The Order shall be submitted in the form specified by Batelco from time to time.

3.3 Validation and Delivery Times

(a) The maximum validation time and delivery lead time for the validation or provision of an Order placed by the OLO and accepted by Batelco shall be as follows:

Specific Information Service component	Validation time between receipt of Order and acceptance or rejection of that Order	Delivery time from Batelco acceptance per BSN
Specific information - all categories	5 Working Days	N/A
Specific information - categories 3.1 (b) (i)-(viii)	See "all categories" above	15 Working Days
Specific information category 3.1 (b) (ix)	See "all categories" above	5 Working Days

(b) The Service Rebates for a failure to meet the maximum validation time and delivery lead time in the preceding paragraph are as follows:

Target	Rebate for each Working Day or part of a Working Day late
Specific Information validation time	1 Specific Information Service Credit subject to the Specific Information Validation Rebate Cap

**ANNEX B: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Clean version)**



Specific Information delivery time	1 Specific Information Service Credit subject to the Specific Information Delivery Rebate Cap
------------------------------------	---

3.4 OLO Obligations

- a) The OLO acknowledges that clauses 18 (“Intellectual Property”) and 21 (“confidentiality”) in Schedule 9 of Batelco’s Supply Agreement shall apply.
- b) On termination of the UMP Service, the OLO shall return the Specific Information in accordance with clause 21.17 of Schedule 9 of Batelco’s Supply Agreement.
- c) Where there is any allegation of a failure to comply with the warranties of this Service Description then the parties will apply the dispute resolution process outlined in clause 24 of the Supply Terms.

4. CHARGES

The OLO shall pay to Batelco the relevant Charges determined in accordance with Schedule 3 of Batelco’s Reference Offer.

**ANNEX C: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (With track changes showing amendments after reviewing
Batelco's response to the Draft Order)**



Annex C

**LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICE TERMS
(with track changes showing amendments after reviewing
Batelco's response to the Draft Order)**

**ANNEX C: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (With track changes showing amendments after reviewing
Batelco's response to the Draft Order)**



Unbundled Metallic Path Service Description

**ANNEX C: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (With track changes showing amendments after reviewing
Batelco's response to the Draft Order)**

SERVICE DESCRIPTION 2-A: UNBUNDLED METALLIC PATH SERVICE

1. THE SERVICE

The UMP Service is an access service which provides the OLO the full useable spectrum of a dedicated metallic path to an end user. Whilst Batelco does not deploy pair gain systems on its Network the removal of pair gain Equipment does not form part of the UMP Service.

A technical description of the metallic path is available in Annex 4 of this Service Description, for illustrative purposes only. Where there are discrepancies, the text in this Service Description will prevail.

Available To: Holders of an Individual National Fixed Services License (NFL) or an Internet Service Provider Class License (ISP) granted by the Telecommunications Regulatory Authority.

Traffic: Traffic permitted by the licenses held by the OLO.

2. DEFINITIONS

Capitalised terms not defined in this Service Description are defined in the Dictionary of the Supply Terms. Terms defined in this Service Description are specific to it.

ANFP means Batelco's Access Network Frequency Plan which is a spectrum management plan for controlling interference, caused by cross talk, within a metallic access network as reviewed and amended from time to time.

Batelco Service Node (BSN) means a Batelco exchange building specified in the list issued by Batelco pursuant to paragraph 3.2 Annex A ("Implementation") of Access Order No.1 of 2009.

Blocks means those blocks in 100 pair units installed either on the MDF or HDF forming part of the UMP Service.

Blocks and Tie Cables Delivery Rebate Cap means 200% of the monthly HDF Block Rental Charge or monthly Tie Cable Rental Charge where applicable.

Blocks and Tie Cables Validation Rebate Cap means 200% of the monthly HDF Block Rental Charge or monthly Tie Cable Rental Charge where applicable.

CLTQS means Batelco's centralized line testing and pre-qualification solution

Covered Failure means an actual or suspected failure in the UMPL.

DP means a Distribution Point.

End User Consent means the written consent of an End User duly completed and signed to receive a service by means of amongst other components a UMP Service supplied to the OLO in accordance with a **UMP Request**, which consent is provided to Batelco by or on

**ANNEX C: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (With track changes showing amendments after reviewing
Batelco's response to the Draft Order)**

behalf of the End User. For the avoidance of doubt the End User Consent can be in the form of the terms and conditions signed by the customer when requesting a service from the OLO.

End User Management means all aspects of interface with the customer product support and billing of the End User by the OLO in relation to each End User contracting with the OLO for using the UMP Service and all customer support by the OLO in relation to maintenance issues related to the End User.

Fault means faults related to the provision of the Local Loop Unbundling Service.

Fault Management means Faults described in Schedule 6 of Batelco's Reference Offer.

Gaining Operator means an OLO who presents Batelco a UMP Request.

HDF means Batelco provided handover distribution frame for the connection of a Tie Cable.

HDF Block Service Credit means, in relation to a single Service Credit, that amount represented by five per cent (5%) of the monthly rental charges for the HDF Block.

Infrastructure Availability means in accordance with paragraph 4.1 (b) for non-active UMPLs Batelco carries out a physical survey of the availability of the UMPL between the DP and the MDF.

Implementation Date means the target date by which Batelco shall complete an UMP Request.

Line Continuity means a tone test carried out by Batelco from time to time in relation to the UMPL:

- For active lines: between the HDF and the line side of the MDF; and
- For non-active lines: between the HDF and the relevant Network Boundary (passing through the relevant street cabinet) except in case of Distant collocation where the test is completed from the MDF.

Losing Operator means an OLO whose End User is subject to a UMP Request given to Batelco by a Gaining Operator.

LPQM means Batelco's line plant query manager giving the theoretical distance and broadband performance on the basis of the address of the End-user.

Response Time means Batelco's Response Times in respect of each Covered Failure.

Restoration Time means Batelco's Restoration Times in respect of each Covered Failure.

MDF means the Batelco owned main distribution frame in a BSN enabling provision of a UMP.

MP means metallic path.

Network Boundary means the Batelco distribution point at customer premises contemplated by Batelco's fixed services license.

**ANNEX C: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (With track changes showing amendments after reviewing
Batelco's response to the Draft Order)**

NTP means Network Termination Point.

Order means a written request by the OLO for Blocks and Tie Cables in a form issued or approved by Batelco from time to time.

Response Rebate Cap means 40% of the monthly rental Charges for the UMPL (8 UMP Service Credits).

Restoration Rebate Cap means 800% of the monthly rental Charges for the UMPL (160 UMP Service Credits).

SNFM Service means the Service Node Facilities Management Service used in conjunction with this service description as specified in service description 2-B of the Reference Offer.

Service Qualification means the analysis carried out by Batelco to confirm whether a UMP service can be provided on the Batelco network by checking:

- (a) Line Continuity; and/or
- (b) Infrastructure Availability; and/or
- (c) CLTQS (active UMPLs) or LPQM (non-active UMPL) on an information only basis.

Threshold Response Time means, in relation to a Covered Failure, the threshold response times set out in paragraph 7.2.

Threshold Restoration Time means, in relation to a Covered Failure, the threshold restoration times set out in paragraph 7.2.

Tie Cable means a cable connecting the UMP from the MDF to the HDF provided by Batelco.

UMP means an existing two wire metallic path connection between the HDF and the Network Boundary comprising a UMPL, jumper cable connecting the UMPL and the Tie Cable, and Tie Cable connecting the MDF with the HDF together with Blocks for the HDF and MDF.

UMP Cease Request means a request by an End User to Batelco or the OLO on the request of the End User to reverse a UMP Request as described in the UMP Request process set out in Annexure 1 to this Service Schedule.

UMP Invalid Transfer means a UMP Transfer:

- (a) where the End User (or its/her/his agent) did not request the services that the OLO has made a UMP Service Request in order to supply to the End User;
- (b) where a written End User Consent cannot be produced by the Gaining Operator on request by Batelco to support the UMP Request; or
- (c) which resulted from a processing error.

**ANNEX C: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (With track changes showing amendments after reviewing
Batelco's response to the Draft Order)**

UMP Request means a UMP Service Request, a UMP Swap Request or UMP Cease Request, as the case may be.

UMP Service Credit means, in relation to a single Service Credit, that amount represented by five per cent (5%) of the monthly rental charges for the UMPL.

UMP Service Request means the request by the OLO for a UMP Service relating to a proposed UMPL under paragraph 4.1(b) (non-active lines).

UMP Swap means on the request of the End User to Batelco or a Gaining Operator to Batelco or End User to the Gaining Operator for a change of an active UMP from Batelco to the OLO or from the OLO to Batelco or from a OLO to another OLO for the provision of services to an End User.

UMP Swap Request means a request from an OLO to make a UMP Swap.

UMP Transfer means a UMP Request by an OLO.

UMPL means an existing two wire metallic path connection between a Batelco MDF and the Network Boundary.

UMPL Delivery Rebate Cap means 200% of the monthly rental Charges for the UMPL.

UMPL Validation Rebate Cap means 200% of the monthly rental Charges for the UMPL.

Useable Pair means the copper wire connection to the End User as specified in paragraph 4.1.

Wrongful Repair Charge means charges for repairs as a result of a fault report lodged to Batelco by an OLO and such faults do not relate to the UMP Service.

3. SERVICE TERMS

- 3.1 Each party acknowledges this Service is conditional upon necessary space being prepared, accepted by the OLO and made ready in accordance with the SNFM Service.
- 3.2 Ownership of the UMP shall remain with Batelco. Without prejudicing the ability to resell licensed telecommunications services using the UMP, the OLO shall not assign, transfer or share their interest in or rights to the UMP.
- 3.3 Batelco will implement UMP Requests from the OLO and requests for configuration and provision of connections from other OLOs and from itself with respect to any UMPL in accordance with Batelco's non-discriminatory provisioning schedule by area.
- 3.4 Each UMP Service or UMP Swap Request shall be for a minimum period of 1 month from the activation date of the UMP Service. If Batelco receives a UMP Cease Request for that UMP on or before the end of the first month from the

**ANNEX C: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (With track changes showing amendments after reviewing
Batelco's response to the Draft Order)**

activation date then the OLO shall pay Batelco the UMP pro rata aggregate rental cancellation charges for the unexpired 1 month period.

- 3.5 If Batelco terminates this service in whole or in part subject to the termination condition included in this SD, then each relevant UMP Service and SNFM Service will terminate.
- 3.6 If a regulatory obligation to support or supply any specific UMP Service no longer applies, Batelco may cease to supply the UMP Service to an OLO on 12 months prior written notice. The OLO will not request the UMP Service for any further End Users 6 months prior to end of the notice period unless commercially agreed between the parties. The OLO will also inform each existing End User that the UMP Service will terminate at the end of the 12 month period.
- 3.7 Where Batelco has reasonable objective grounds to consider that the OLO is in breach of an obligation consequent to the UMP Service, Batelco may, after notifying the Authority and obtaining the Authority's written approval:
 - (a) suspend implementation by the OLO of the UMP Service and/or
 - (b) take any other step contemplated by the Supply Terms to protect Batelco's network or other interests.

4. END USER ACCESS

Useable Pairs

- 4.1 The OLO acknowledges that Batelco only supplies the UMP Service, subject to successful Service Qualification, where:
 - (a) Batelco supplies operational telephone PSTN and ISDN or broadband services to the same End User over the same Useable Pair as may be used with the UMP Service by the OLO to provide services to the End User; or
 - (b) spare copper pairs exist between the MDF and Batelco's distribution point; and where there are no objective and justifiable technical, legal or operational grounds to prevent delivery by jumpering at the MDF, jumpering at the street cabinet and/or provision of a drop wire. Batelco will provide objective reasons justified in writing to OLOs at the time of Batelco's refusal. To the extent it applies similar treatment and processes to its retail End Users, Batelco shall provision an alternative UMPL if existing suitable spare pairs are available
- 4.2 For each UMP Request the OLO warrants that it has informed the End User that the installation and operation of the UMP Service may require changes to the placement of existing telecommunications devices or changes of equipment.
- 4.3 The OLO acknowledges that the UMP Service will allow the provisioning of services to End Users but the quality of such services will be subject to the variable conditions and characteristics of the Useable Pairs. Where the quality of service

**ANNEX C: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (With track changes showing amendments after reviewing
Batelco's response to the Draft Order)**

degradation or interruption of service arises in connection with the operational life span of the UMPL, Batelco is under no obligation to replace that UMPL except in cases where failure to do so would result in undue discrimination by Batelco between its retail business and the OLO.

Maintenance and Non Discrimination

- 4.5 Batelco will provide network maintenance and support services to ensure that the UMP Service is provided to the OLO at the same level of quality of service and availability as Batelco provides to itself.

5. EQUIPMENT

- 5.1 The provision of a UMP Service or the implementation or transfer of the Service does not include the provision of any internal cabling or any customer premises equipment and only comprises the elements specified in this service description.

6. BLOCKS AND TIE CABLES

- 6.1 The OLO shall submit a correctly completed Order to Batelco to request supply of Blocks and Tie Cables in accordance with this Service Description. The Order shall be submitted in the form specified by Batelco from time to time.
- 6.2 To be valid, the Order shall be accompanied by reference information identifying the BSN to enable Batelco to implement the Blocks and Tie Cables Order.
- 6.3 Subject to Batelco obtaining all necessary consents and the OLO fulfilling all of its obligations under the Supply Terms in particular provisioning and installation of the relevant SNFM Service, Batelco will provide the OLO with the Blocks and Tie Cables as specified in the Order accepted by Batelco.
- 6.4 The OLO shall pay the relevant Charges for the Blocks and Tie Cables as specified in Schedule 3 of Batelco's Reference Offer.
- 6.5 At any time and subject to any obligations arising as a result of paragraph 3.4 above, following the successful completion of a Blocks and Tie Cables Request, the OLO may make a request to Batelco to cease the Blocks and Tie Cables service. In this case, the OLO shall pay the Tie Cable cease charge as specified in Schedule 3 of Batelco's Reference Offer.

7 CONNECTION

**ANNEX C: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (With track changes showing amendments after reviewing
Batelco's response to the Draft Order)**

7.1 Batelco will use its reasonable endeavours to connect the UMP Service on or before the relevant Implementation Date which shall be dependent on the following timescales:

- (a) The maximum validation time and delivery lead time for the installation for an Order or a UMP Request placed by the OLO and accepted by Batelco shall be as follows:

UMP Service component	Validation time between receipt of Order or UMP Service Request and (for UMP Service Requests) verification or (for Orders) acceptance or rejection	Delivery time from acceptance of UMP Request or Blocks and Tie Cables Order to implementation
UMPL	5 Working Days	10 Working Days
Blocks and Tie Cables	5 Working Days	20 Working Days

**ANNEX C: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (With track changes showing amendments after reviewing
Batelco's response to the Draft Order)**

- (b) The Service Rebates for a failure to meet the maximum validation time and delivery lead time in the preceding paragraph are as follows:

Target	Rebate for each Working Day or part of a Working Day late
UMPL validation time	10 UMP Service Credits subject to the UMP Validation Rebate Cap (Equivalent to 50% of the UMP Rental charge)
UMPL delivery time	10 UMP Service Credits subject to the UMP Delivery Rebate Cap (Equivalent to 50% of the UMP Rental charge)
Blocks and Tie Cables validation time	10 HDF Block Service Credits subject to the Blocks and Tie Cables Validation Rebate Cap (Equivalent to 50% of the HDF Block Rental charge)
Blocks and Tie Cables delivery time	10 HDF Block Service Credits subject to the Blocks and Tie Cables Delivery Rebate Cap (Equivalent to 50% of the HDF Block Rental charge)

Batelco will notify the OLO when the connection has been effected in accordance with the UMP Request procedures set out in Annex 1 to this Service Description.

7.2 Fault response and repair

- (a) Subject to (b) below, the OLO will, as soon as practicable and after becoming aware of a Fault with the UMP (between the HDF and the network boundary) or any other Covered Failure, notify Batelco of that Fault in accordance with the procedures for the reporting of faults set out in Schedule 6 (Fault Management) for the reporting of faults, Fault investigation and identification of the Fault Owner and Other Affected Party. In particular, the Fault should be raised at the level of Fault Control Centre which operates 24-hours a day, 7 days a week and

**ANNEX C: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (With track changes showing amendments after reviewing
Batelco's response to the Draft Order)**

all days in each year in accordance with article 3.1 of Schedule 6 (Fault Management) of Batelco's Reference Offer.

- (b) The OLO shall in particular use the UMPL Fault Management form.
- (c) Batelco shall adhere to the following Response Times and Restoration Times:

Fault type	Response Time between receipt of the Fault Management form and acceptance or rejection	Restoration Time from acceptance of the Fault Management form to notification of restoration	Threshold Response Time between receipt of the Fault Management form and acceptance or rejection	Threshold Restoration Time from acceptance of the Fault Management form to notification of restoration
Covered Failure standard	60 minutes	3 Working Days	90 minutes	5 Working Days
Covered Failure premium	60 minutes	NA	90 minutes	8 hours

**ANNEX C: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (With track changes showing amendments after reviewing
Batelco's response to the Draft Order)**

- (d) Where Batelco's Response Time or Restoration Time exceeds the Threshold Response Time or Threshold Restoration Time respectively for Covered Failures then the following Service Rebates, assessed on a quarterly basis per event, will apply:

Fault type (as defined in Schedule 6)	Time by which Response Time exceeds Threshold Response Time	Response Service Rebate	Time by which Restoration Time exceeds Threshold Restoration Time	Restoration Service Rebate
Covered Failure	15 minutes 1 hour More than 1 hour	1 UMP Service Credit 2 UMP Service Credits 1 UMP Service Credits per every additional hour subject to the Response Rebate Cap	One Working Day or part of a Working Day	40 UMP Service Credits subject to the Restoration Rebate Cap

8. FORECASTING

- 8.1 At the beginning of each calendar month, the OLO shall supply a non-binding forecast of the expected requests for the UMP Service in each month of the twelve month period following the date of the forecast, in the form required by Batelco from time to time. The OLO shall use all reasonable endeavours to forecast accurately given Batelco is placing reliance on those forecasts.

9 UMP TRANSFER

UMP Transfer Process

- 9.1 Batelco and the OLO shall comply with clause 9 and Annex 1 of this Service Description when carrying out any UMP Request.
- 9.2 The OLO shall establish robust procedures to ensure an appropriate End User Consent duly completed and signed is received and properly recorded by the OLO before any UMP Service Request is notified to Batelco.

**ANNEX C: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (With track changes showing amendments after reviewing
Batelco's response to the Draft Order)**

- 9.3 The OLO shall provide Batelco, upon request, a copy of the End User Consent (OLO's document signed by the End User explaining rights and obligations of the End User and the consequences of Unbundling).

Charges

- 9.4 The OLO shall pay to Batelco the relevant Charges as set out in Schedule 3 of Batelco's Reference Offer.

Responsibilities

- 9.5 From the time of the completion of the UMP Request, the relevant End User will no longer be a customer of Batelco for those services supplied by the OLO using the UMP Service, but instead the customer of the OLO for those services.
- 9.6 From the time of completion of the UMP Request, the OLO shall provide End User Management to support the UMP Services.
- 9.7 When a fault is reported by an End User, it is the responsibility of the OLO to perform initial tests, prior to raising a fault to Batelco, in order to validate that the fault is not within the OLO's network and equipment. In order to assist in the resolution and for efficient use of resources, the OLO shall promptly provide reasonable and complete details of the test performed when reporting the fault to Batelco. If after further investigation Batelco demonstrates the fault does not relate to the UMP Service, then the OLO shall pay the Wrongful Repair Charge (on a time basis as set in Schedule 3 of Batelco's Reference Offer).
- 9.8 In relation to any Batelco service:
- (a) Batelco will continue to bill the End User for any outstanding Batelco charges and other Batelco services; and
 - (b) The OLO acknowledges that the End User remains liable to pay any outstanding charges to Batelco and remains subject to standard Batelco debt enforcement policies notwithstanding that the End User is at the same time an OLO Customer.
- 9.9 In respect of each UMP Request submitted by the OLO to Batelco, the OLO shall ensure that:
- (a) it has an End User Consent for the transfer or implementation (which consent is not more than 30 days old from the date the UMP Request submission is made to Batelco);
 - (b) it retains records of the End User Consent and the retention is in accordance with the reasonable requirements notified to the OLO by Batelco from time to time;
 - (c) it has used its reasonable endeavours to ensure that the information in the UMP Request is complete and correct;

**ANNEX C: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (With track changes showing amendments after reviewing
Batelco's response to the Draft Order)**

- (d) the processing of each UMP Request, at the time it is lodged, does not breach any party's contractual or other rights (but, for the avoidance of doubt, a signed End User Consent shall be deemed to be a valid notice to Batelco to terminate the relevant Batelco services);

9.10 Where there is any allegation of a failure to comply with this Service Description then the parties will apply the dispute resolution process outlined in clause 24 of the Supply Terms.

Indemnity

9.11 Each party indemnifies the other, subject to using all reasonable endeavours to mitigate against the effect of the occurrence of any loss, liability or cost incurred by a party (including third party claims or claims by any End User) caused by a breach of this Service Description.

10 Billing Period

10.1 The Billing Period in respect of the Service shall be 30 days. The Billing Period shall commence on the date of the first billing date of the Batelco billing cycle after installation and may include billing on a pro rata time basis for the period between the UMP Request to the next billing cycle to ensure compatibility with the Batelco billing cycle.

**ANNEX C: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (With track changes showing amendments after reviewing
Batelco's response to the Draft Order)**

ANNEX 1 – UMP REQUEST PROCESS

1. UMP Service Request and UMP Swap Request

- 1.1 The OLO shall make a UMP Service Request for the provision of a UMP Service by Batelco to allow the OLO to supply a new or existing service to an End User.
- 1.2 A UMP Service Request shall be in the format notified by Batelco from time to time and be submitted by the means notified by Batelco from time to time.
- 1.3 Batelco will, within 5 Working Days of receipt of any UMP Service Request or UMP Swap Request, notify the OLO whether the UMP Service Request is:
 - (a) accepted; or
 - (b) rejected.
- 1.4 Batelco may reject a UMP Service Request or UMP Swap Request if it:
 - (a) is incomplete or incorrect or illegible or cannot reasonably be understood;
 - (b) does not properly identify the End User, or provide information which does not enable Batelco to identify the Useable Pair;
 - (c) is not submitted in accordance with paragraph 2 of this Annex 1;
 - (d) in the case of a UMP Swap Request, is an UMP Invalid Transfer;
 - (e) has any other material defect which will hinder the completion of the request, notified by Batelco to the OLO at the time of rejection; or
 - (f) was made at a BSN where the OLO has no SNFM service.

In such a case, the OLO will be charged the Rejection, reversal and withdrawal charge per UMP order charge (as set out in Schedule 3 of the Reference Offer).

- 1.5 Batelco may in its sole discretion elect to accept any UMP Service Request notwithstanding that there is any defect in that UMP Service Request if Batelco considers that such defect does not have a material effect on Batelco's ability to process the UMP Service Request and provide the UMP Service.

2. Batches

- 2.1 The OLO shall submit UMP Requests to Batelco in batches of no more than ten requests. Batches shall be:
 - (a) submitted by the means notified by Batelco from time to time;
 - (b) submitted by authorised personnel of the OLO;

**ANNEX C: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (With track changes showing amendments after reviewing
Batelco's response to the Draft Order)**

- (c) made up of only UMP Requests that comply with the requirements of this Service Description and the Supply Terms; and
- (d) identified by a unique batch number generated by the OLO.

2.2 Batelco will only accept batches of UMP Requests that:

- (a) are delivered to Batelco during business hours (for the avoidance of doubt submission received after business hours will be deemed to have been received on the next working day);
- (b) comply with the requirements set out in paragraph 1 of this Annex;
- (c) do not exceed the maximum number of two batches per day.

2.3 When a batch of UMP Requests contains one or more Requests that contain one or more defects, Batelco will:

- (a) reject the defective UMP Requests by returning them to the OLO; and
- (b) continue to process the valid UMP Requests within the same batch.

3. Completion of Request

3.1 When Batelco notifies the OLO that the UMP Request is accepted, then Batelco shall use its reasonable efforts to complete the UMP Request on or before the Implementation Date.

3.2 Batelco shall put on hold a UMP Request if:

- (a) The relevant UMP Service cannot meet Service Qualification;
- (b) An authorised person from the End User or the OLO is not available to provide further information when requested and has been contacted at least twice.

3.3 For the avoidance of doubt, Batelco shall notify the OLO in writing once a UMP Request is on hold and shall resume the process as soon as the reason for putting on hold the request as per 3.2 above is satisfied accordingly and brought to Batelco's notice in writing by the OLO.

3.4 Any Service Levels and Service Credits shall not be considered during the period which the UMP Request is put on hold as a result of paragraph 3.2 above.

3.5 Once a request is successfully completed, the OLO will be charged the connection charge (as set out in Schedule 3 of Batelco's Reference Offer).

**ANNEX C: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (With track changes showing amendments after reviewing
Batelco's response to the Draft Order)**



4. Notification of Completion of Request

- 4.1 Batelco shall, within 2 Working Days of completion of a UMP Service Request, notify the OLO of completion.
- 4.2 Batelco is entitled to rely on a UMP Request as evidence that the relevant End User has given an End User Consent in relation to the requested UMP Request and understands and is aware of the End User's continuing liability to pay any charges to Batelco when due.

5. UMP Cease Request

- 5.1 At any time following the successful completion of a UMP Request, either:
 - (a) the relevant End User; or
 - (b) the OLO;may make a request to Batelco to cease the UMP Request.
- 5.2 Batelco will, within 2 Working Days of completion of a UMP Cease Request notify the Gaining and Losing OLOs that the UMP Cease Request has been processed.
- 5.3 The OLO will be charged the Cessation charge (as set out in Schedule 3 of Batelco's Reference Offer).

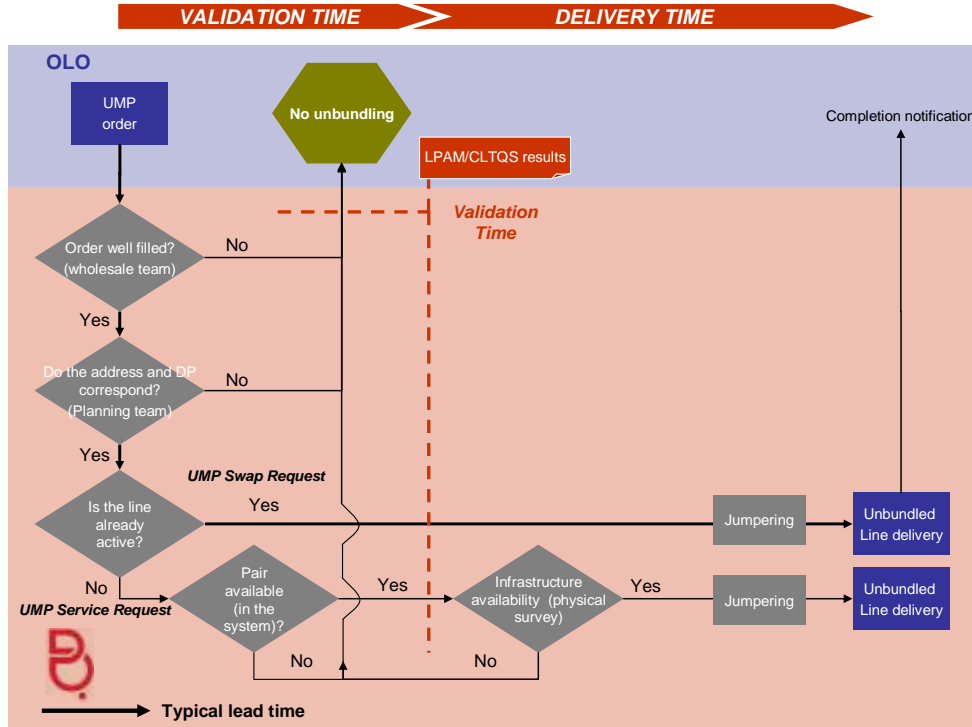
The following diagram(s) are for illustrative purposes only. Where there are discrepancies, the text in this Service Description will prevail.

LLU Reference Offer Order



هيئة تنظيم الاتصالات
Telecommunications Regulatory Authority

ANNEX C: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES TERMS (With track changes showing amendments after reviewing Batelco's response to the Draft Order)

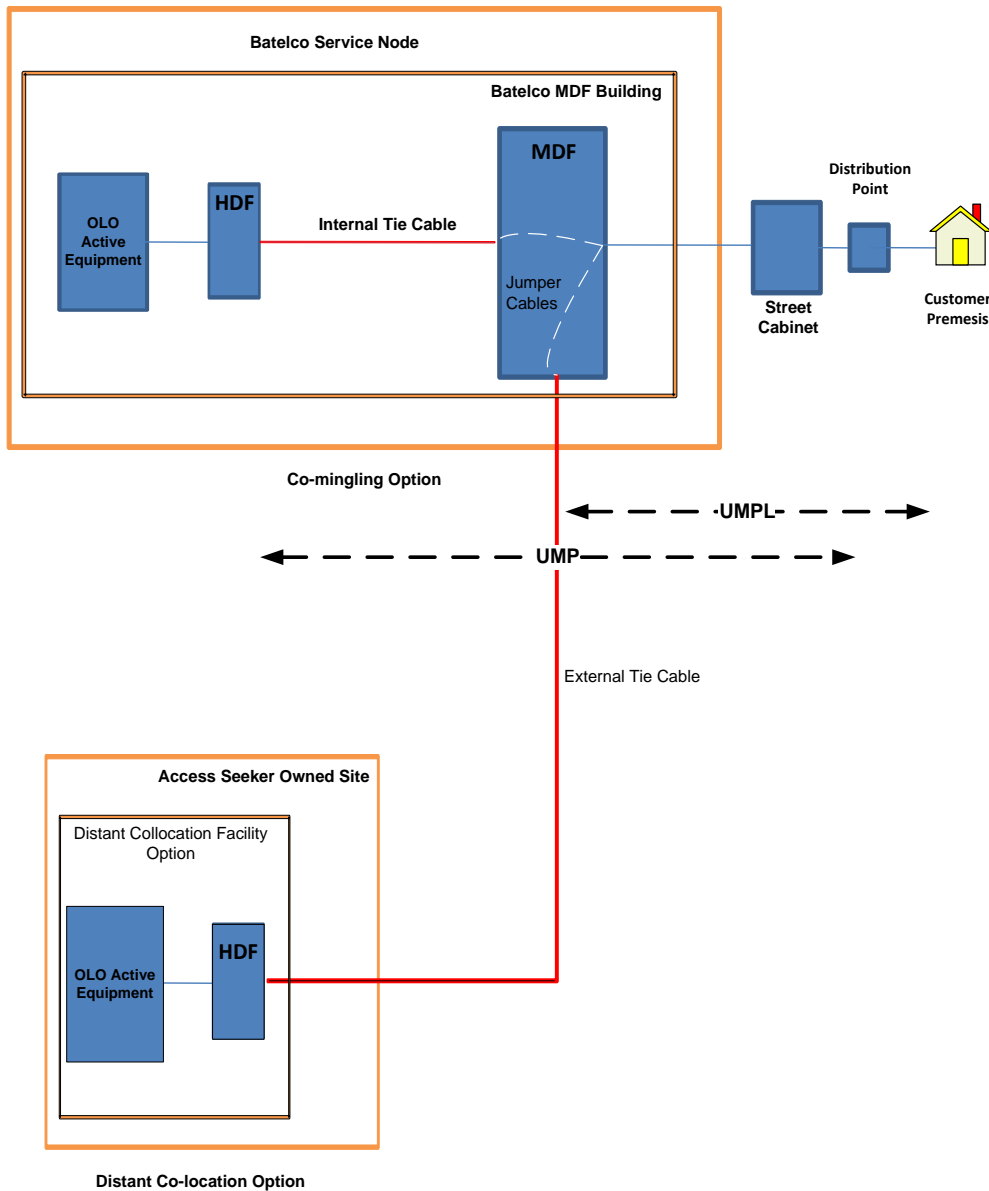


ANNEX C: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES TERMS (With track changes showing amendments after reviewing Batelco's response to the Draft Order)

ANNEX 2 Technical UMP diagram (to be read with the SNFM service description)

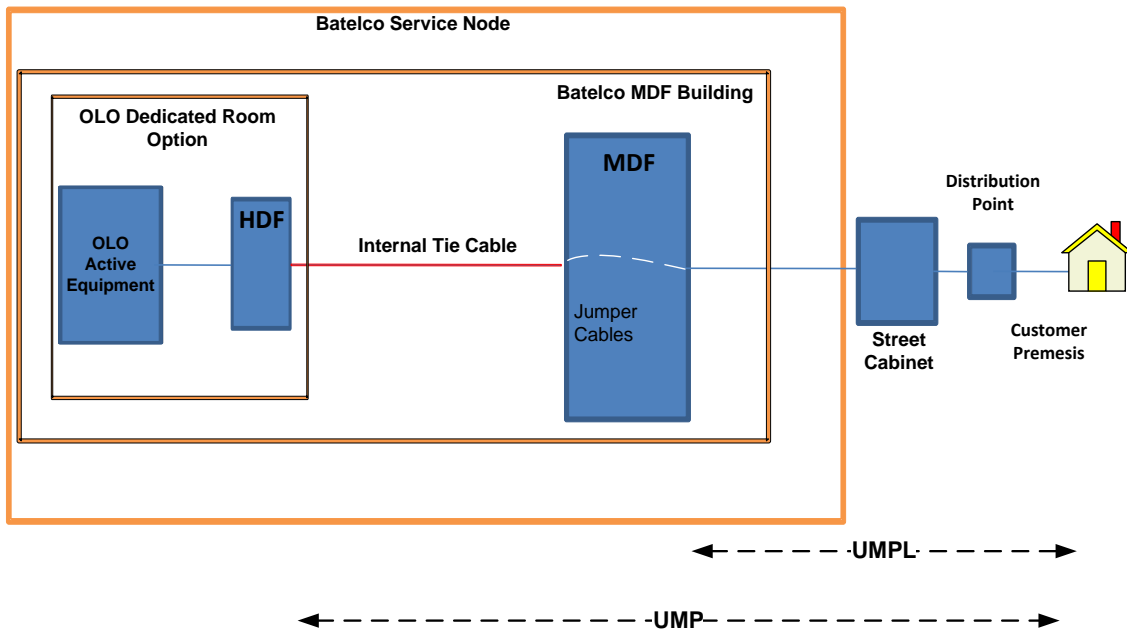
Commingling and Distant OLO Space

The following diagram(s) are for illustrative purposes only. Where there are discrepancies, the text in this Service Description will prevail.

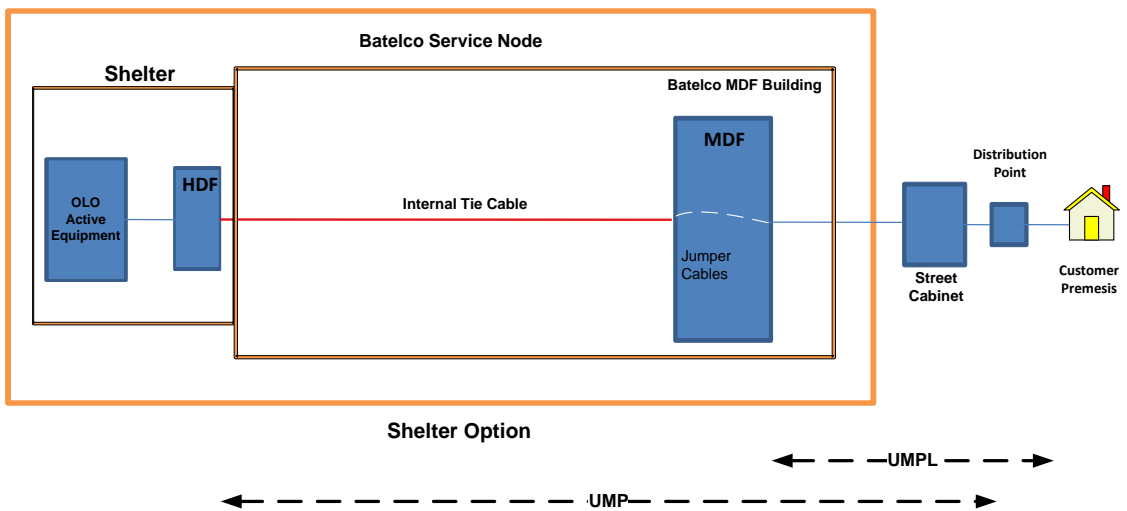


ANNEX C: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES TERMS (With track changes showing amendments after reviewing Batelco's response to the Draft Order)

Dedicated OLO Space



Licensed Shelter Space



LLU Reference Offer Order

**ANNEX C: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (With track changes showing amendments after reviewing
Batelco's response to the Draft Order)**



LLU Reference Offer Order

ANNEX C: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES TERMS (With track changes showing amendments after reviewing Batelco's response to the Draft Order)



ANNEX 3 UMP CHARGES

The OLO shall pay to Batelco the relevant Charges determined in accordance with Schedule 3 of Batelco's Reference Offer.

**ANNEX C: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (With track changes showing amendments after reviewing
Batelco's response to the Draft Order)**

ANNEX 4 METALLIC PATH SPECIFICATION

This specification has been produced by Batelco Networks in order to provide OLOs with the parameters of the Batelco MP. This document is provided for technical guidance only and highlights the general characteristics of the Batelco MP for information only rather than detailing specific characteristics of the particular UMP as supplied by Batelco as part of the UMP Service. The document does not form part of the legally binding service description and Batelco Reference Offer, but is produced for information only.

The specification contained in this Annex 4 may be varied by Batelco in accordance with clause 8 of the Supply Terms.

1. Scope

This specification defines the electrical parameters of Batelco MP from the Service Node to the Customer premises. It applies to the MP when the internal wiring and equipment are in isolation.

2. Metallic Path Parameters

The parameters of Batelco MP are defined for the copper pair from the MDF in the Service Node to the NTP in the Customer premises. The Batelco MP must be tested in isolation of the internal wiring and CPEs. The parameters are listed in table 1 below.

Parameter	Value	Notes
Electrical Continuity	The MP is a continuous connection between the MDF in Batelco Service Node to the NTP in the Customer premises.	
Insertion Loss	Max is 10 dB at 1600 Hz	
Loop Resistance	Less than 1200 Ohms	
Insulation Resistance A-B or B-A	Greater than 50 KOhm	Measured using voltage of 100 V DC.
Insulation Resistance Wire - Erath	Greater than 50 KOhm	Measured using voltage of 100 V DC.

**ANNEX C: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (With track changes showing amendments after reviewing
Batelco's response to the Draft Order)**

Insulation Resistance Wire - Battery	Greater than 50 KOhm	Measured using voltage of 100 V DC.
--------------------------------------	----------------------	-------------------------------------

Table 1: Batelco Metallic Path Parameters

2.1 Cables Types

Batelco mainly use two types of cables as follows:

2.1.1. Primary Cable

Designed primarily for installation in ducts in the Primary Side of Batelco Access Network (from MDF at the Service Node to the Cabinets). The conductors in the cable consist of a solid wire of standard annealed copper, smoothly drawn, circular in section, uniform in quality. Each conductor covered with a solid polyethylene compound Type 03 complying with BS 6234. Two appropriately coloured insulated conductors twisted together to form a pair (Each unit contains 25 pairs). The cable is sheathed with black polyethylene and sheath thickness includes the moisture barrier. The cable sheath is pneumatically tested to a pressure of 800 millibars, and sustains a constant pressure of 630 ± 50 millibars.

2.1.2. Secondary Cable

Designed primarily for installation in ducts in the Secondary Side of Batelco Access Networks (from Cabinets to Distribution Points). Each conductor in the cable consist of a solid wire of standard annealed copper, smoothly drawn, circular in section, uniform in quality. Each conductor covered with a solid polyethylene compound Type 03 complying with BS 6234. Two appropriately coloured insulated conductors twisted together to form a pair. The cable is sheathed with black polyethylene and sheath thickness includes the moisture barrier. The interstices of the cable core are completely filled with a compound. The compound is capable, in conjunction with the insulation, of giving a cable lifetime in excess of 25 years, in the environment of Bahrain.

2.2. Cables Gauges

Batelco uses different gauges of cables such as 0.4, 0.5 and 0.63 mm. The cable gauge chosen should be of the smallest which meets the Loop Resistance limit. Cables of lower gauge should be used close to the Service Node and the gauge increased with distance from the Service Node. Figure 1 below shows the typical application of the different gauges in Batelco Access Network and Table 2 below shows the different Cable gauges parameters.

ANNEX C: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES TERMS (With track changes showing amendments after reviewing Batelco's response to the Draft Order)

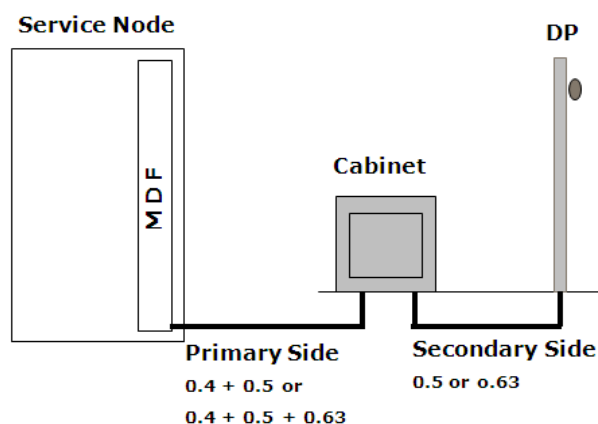


Figure 1: Typical Application of Different Gauges

Cable Gauge (mm)	Loop Resistance (Ω / Km) @ 20 °C	Mutual Capacitance (nF / Km)	Attenuation (dB / Km) @ 1600 Hz
0.4	150	60	2.37
0.5	96	64	1.84
0.63	60	64	1.47

Table 2: Different Cable Gauges Parameters

3. Metallic Path Electrical Termination

The MP consists of two copper wires designated as “A” and “B” wires.

3.1. Network Termination Point Termination

The connection to the MP at the Customer premises is a Batelco Master Socket representing the NTP.

3.1.1. Batelco Master Socket Connections

The connection to the MP is provided by Batelco Master Socket on the face plate. The connections for the socket with Voice and Broadband service are shown in Table 2 below.

ANNEX C: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES TERMS (With track changes showing amendments after reviewing Batelco’s response to the Draft Order)

Contact No	Connectivity
1	Not Used
2	“A” or “B” Wire
3	Shunt Connection
4	Not Used
5	“B” or “A” Wire
6	Not Used

Table 3: Batelco Master Socket Connections

The Shunt Connection is derived from the centre point between a 470 KOhm resistor and a 1.8 μ F capacitor connected in series across the “A” and “B” wires. Additionally there is an overvoltage protection device connected across “A” and “B” wires. Figure 2 below shows the circuit diagram.

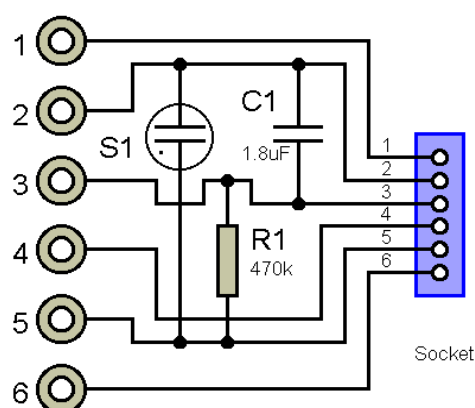


Figure 2: Batelco Master Socket Circuit Diagram

3.2. Main Distribution Frame Termination

In UMP service, no direct access to the MP end is provided at the MDF. Indirect connection is only provided via an Internal or External Tie Cable. The interface to the network end of the MP will be the HDF within the LLU OLO space.

4. Metallic Path Operation

**ANNEX C: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (With track changes showing amendments after reviewing
Batelco's response to the Draft Order)**

In order to ensure network integrity, eliminate interference and for safety reasons, the equipment connected to Batelco MP must conform to the ANFP and meet the following technical requirements:

4.1. Power Feeding

The voltage applied to Batelco MP must not at any time exceed 120V of either polarity with respect to earth to either leg of the MP. Voltage measurement should be made using a high internal impedance (10 MOhm) voltmeter.

The current caused to flow should not exceed 60mA between either legs of the MP.

The voltages and currents limits above are absolute including AC signals at any frequency together with any DC power supplied to the CPEs.

4.2. Input Signals

Any signals applied to Batelco MP must conform to Batelco ANFP.

**ANNEX C: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (With track changes showing amendments after reviewing
Batelco's response to the Draft Order)**



Service Node Facility and Management Service Description

**ANNEX C: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (With track changes showing amendments after reviewing
Batelco's response to the Draft Order)**

SERVICE DESCRIPTION 2-B: SERVICE NODE FACILITIES MANAGEMENT SERVICE

1. THE SERVICE

The SNFM Service is an access service more particularly defined below which together with the UMP Service enables the **OLO** to provide the full useable spectrum of a dedicated metallic path to an end user.

Available To: Holders of an appropriate Individual Telecommunications or Class License granted by the Telecommunications Regulatory Authority.

Traffic: N/A

2. DEFINITIONS

Capitalised terms not defined in this Service Description are defined in the Dictionary of the Supply Terms. Terms defined in this Service Description are specific to it.

ANFP means the Access Network Frequency Plan which is a spectrum management plan for controlling interference, caused by cross talk, within a metallic access network as reviewed and amended from time to time

Batelco Service Node (BSN) means a Batelco exchange building specified in the list issued by Batelco.

Co-mingling means co-location space where the OLO Equipment is installed in a BSN in an area which may also house Batelco or other Licensed Operator Equipment unpartitioned from the OLO Equipment and from each other.

Contact Person means Batelco's personnel who can be contacted any time by staff and contractors of the OLO who need to enter the SNFM space. Batelco guarantees that in case the Contact Person cannot be reached, another official from Batelco can be reached 24 hours a day, seven days a week.

Dedicated OLO Space means a room or caged area within a BSN where an OLO has a Licensed Floor Area.

Distant OLO Space means an area owned leased or controlled by the OLO near to a BSN containing OLO Equipment which is intended to be connected to a Batelco UMP by means of an External Tie Cable.

Implementation Date means the date set out in an Order for a SNFM Service which shall be determined in accordance with the timescales set out in clause 11.11 of the Supply Terms.

Licensed Shelter Space means a ground area or areas within the perimeters of but not inside a BSN occupied by an OLO under a license where the OLO's Equipment is installed

**ANNEX C: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (With track changes showing amendments after reviewing
Batelco's response to the Draft Order)**

as more particularly shown in the plan attached to that license or any other such ground area which may be licensed if relocation takes place.

MDF means the Batelco owned main distribution frame in a BSN enabling provision of a UMP.

Network Boundary means the Batelco distribution point at customer premises contemplated by Batelco's fixed services license.

OLO Equipment means all Equipment compliant with the ANFP or other equivalent specification, provided by the OLO necessary to support the End User's ability to use a UMP Service.

Point of Presence (POP) means an aggregation or network connection point in the OLO's Network located at premises owned or shown to be leased by the OLO or at a Batelco collocation facility, but for the avoidance of doubt cannot be at an End User Premises, cable station, earth station, manhole, power room, lead-in pipe, duct, outdoor cabinet, MDF, riser room or anywhere not on the main island of Bahrain unless connected by a permanent physical connection above sea level and accessible by the Batelco.

SNFM Delivery Rebate Cap means 20% of the monthly License Fee for the SNFM Space.

SNFM Space means where applicable, Licensed Floor Space, Licensed Shelter Space, Dedicated OLO Space or Distant OLO Space.

SNFM Delivery Rebate Cap means 20% of the monthly License Fee for the SNFM Space.

SNFM Service means the Service Node Facilities Management Service.

SNFM Service Credit means, in relation to a single Service Credit, that amount represented by 5% of monthly charge of the License Fee.

SNFM Validation Rebate Cap means 20% of the monthly License Fee for the SNFM Space.

UMPB Link means a dedicated transmission service between an OLO's active equipment used to provide End Users with a service based on the UMP Service and the OLO's Point of Presence provided in accordance with this Service Description and the Supply Terms.

UMPB Service Initial Point means an optical (or Electrical) distribution frame which is the handover frame for the connection between the backhaul and the OLO's- transmission equipment established for the purposes of supporting UMP backhaul capacity in Bahrain.

UMPL means an existing two wire metallic path connection between a Batelco MDF and the Network Boundary

3. SERVICE TERMS

**ANNEX C: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (With track changes showing amendments after reviewing
Batelco's response to the Draft Order)**

- 3.1 The SNFM Service in each BSN comprises:
- (a) SNFM Space being Co-mingling, Dedicated OLO Space and Licensed Shelter Space.
 - (b) Licensed Shelter Space – provided by the OLO – maximum 10 sq meters (subject to availability).
 - (c) Riser room access.
 - (d) Raised Flooring.
 - (e) Power – DC power only from an electrical distribution board and handed over at the relevant rack with a lug connector or depending upon the OLO's Equipment, direct cable connection(s). DC and AC power supply/backup to the SNFM Space of 3 kW/h which can be increased in increments of 1kW/h up to a maximum of 7kW/h, subject to additional charges and which apply the same interruption and back up protection to this power supply as applies to other OLOs in the BSN.
 - (f) Light to a reasonable standard.
 - (g) Air conditioning – reasonable temperature and humidity control provided to OLOs Equipment complying with Batelco specifications.
 - (h) Access arrangements for OLO staff and outside contractors.
 - (i) Building maintenance and repair of the SNFM Space to such standards as is adequate given the age and nature of the facility.
 - (j) Cleaning to a reasonable standard.
 - (k) Security and caging for Dedicated OLO Space.
 - (l) Earthing – standard point to multipoint.
 - (m) Fire detection and suppression provided the OLO insures its own Equipment against fire risk.
 - (n) Maximum loading being 300kg per square meter for a wooden raised floor and 500kg per square meter for a steel raised floor.
 - (o) Lead in trays for Tie Cables and/or for UMP Backhaul.
 - (p) Cage fixing (on request of OLO) in relation to Dedicated OLO Space only.

Please note: rack fixing is not provided or used in the SNFM Space.

- 3.2 Provision of the SNFM shall be conditional on the OLO:

**ANNEX C: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (With track changes showing amendments after reviewing
Batelco's response to the Draft Order)**

- (a) entering into a SNFM License substantially in the form of Annex 1 in respect of each BSN.
 - (b) providing a statement of conformity with the ANFP.
 - (c) providing a copy of type approval certificates as described in paragraph 3.3 (c) below.
 - (d) providing of relevant and valid insurance documentation as specified under paragraph 9 of this Service Description and clause 17 of the Supply Terms.
 - (e) Completion of the relevant security requirements for OLO staff and contractors as specified and referred to under paragraph 4.4 and Annex 3 of this Service Description.
- 3.3 The OLO shall ensure that any Equipment connected to the UMPL:
- (a) meets the specifications and requirements defined by relevant international telecommunications and engineering standards;
 - (b) the ANFP; and
 - (c) is type approved equipment under article 38 of the Telecommunications Law and/or any type approval regulation issued by the Regulator.
- 3.4 If Batelco terminates this Service in whole, then each SNFM License will terminate after expiry of the relevant notice period.
- 3.5 If a regulatory obligation to support or supply any specific SNFM Service no longer applies, Batelco may cease to supply the SNFM Service to an OLO on 12 months prior written notice. Following the giving of a notice under this clause, the OLO will not request any new SNFM Services from Batelco unless commercially agreed otherwise between Batelco and the OLO. The OLO will also inform each existing End User that the SNFM Service will terminate at the end of the 12 month period.
- 3.6 For the avoidance of doubt, Batelco may continue to provide and the OLO may continue to request this service from Batelco on commercial terms agreed mutually between Batelco and the OLO.
- 3.7 Where Batelco has reasonable objective grounds to consider that the OLO is in breach of an obligation under this Service, Batelco may, subject to TRA's approval:
- (a) suspend implementation by the OLO of the SNFM Service; and/or
 - (b) take any other step contemplated by the Supply Terms to protect Batelco's network or other interests.

**ANNEX C: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (With track changes showing amendments after reviewing
Batelco's response to the Draft Order)**

- 3.8 Batelco will make available to OLOs through the General Information request, the list of the BSNs available for unbundling as approved by TRA and updated from time-to-time. For the avoidance of doubt, OLOs may request Batelco to seek TRA's approval to unbundle a BSN not marked as available for unbundling provided that it submits with its request a valid reason. In all cases, it shall be TRA's sole decision to make available a BSN for unbundling subject to security and technical feasibility assessment.

4. SNFM SPACE

- 4.1 Batelco shall provide the SNFM Space using the order procedure specified in Schedule 7 ("Facilities Access Service") of the Reference Offer. In relation to Co-mingling, Dedicated OLO Space and Licensed Shelter Space, the parties shall enter into a SNFM License in the form set out in Annex 1 of this Service Description.
- 4.2 Unless the OLO specifically requests otherwise or there is no space available, the SNFM Space shall be commingled inside the secure space of the facility and the OLO acknowledges that other Batelco customers and Batelco will have co-mingled access to the SNFM and OLO Equipment.
- 4.3 Subject to paragraph 4.4 below, Batelco shall provide the OLO with access to the SNFM Space to allow the OLO's People to access the SNFM Space in order to enable the OLO to perform their obligations under this Service.
- 4.4 The OLO's People shall observe all of Batelco's instructions and procedures relating to this Service, including Batelco's security and site regulations. Nothing in any guidance, instruction or policy can be taken to mean that Batelco assumes any risk or responsibility in relation to the OLO's service, Equipment or People. An indicative summary of the current security procedures and policies is set out in Annex 3 of this Service Description. Upon completion and acceptance of the Service Request form for this SNFM Service, the OLO shall request and Batelco shall provide a copy of Batelco's summary security procedures which shall be amended from time to time in Batelco's absolute discretion. Enquiries about the details of any policy or procedure should be directed to the OLO's account manager at Batelco.
- 4.5 Batelco will provide a safe working environment for any OLO People at the SNFM Space. The OLO shall indemnify Batelco against all claims, charges, costs or expenses in any way relating to injury to or death of any OLO People at or in the environs of the SNFM Space that is not caused by Batelco, and against all loss of or damage to the OLO Equipment or any other Batelco customer's Equipment at the SNFM Space in any way connected with the OLO's use of the SNFM Space that is not caused by Batelco.
- 4.6 The OLO understands and agrees that third parties such as the emergency services and law enforcement agencies may have a legal right of entry to SNFM Space and the surrounding area at any time.
- 4.7 OLO may enter the SNFM Space solely for the purposes of installing, inspecting, maintaining, adjusting, repairing, altering, replacing or removing OLO Equipment

**ANNEX C: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (With track changes showing amendments after reviewing
Batelco's response to the Draft Order)**

within the SNFM Space in accordance with the SNFM License. The OLO is not permitted to enter any other part of the BSN.

- 4.8 All OLO access shall be escorted access, which comprises the provision of Batelco staff to escort the OLO's People to and from the SNFM Space. Where Batelco's policies require supervision at the SNFM Space, this will be at the OLO's cost.

5. GENERAL SERVICE TERMS

- 5.1 The OLO acknowledges:

- (a) The components of this Service are provided together and with the UMP Service for the relevant BSN and are not severable. If either party terminates any of the components of the SNFM Service then all elements of the SNFM and UMP Services will terminate.
- (b) The SNFM Service comprises the SNFM Space and additional support services set out in this service description;
- (c) This SNFM Services does not allow personnel of the OLO physical access to any relevant Facility unless expressly stated in this service description.

- 5.2 Ordering

- (a) The OLO shall submit a correctly completed Order to Batelco to request supply of the SNFM Service in accordance with this service description and the Supply Agreement. The Order shall be submitted in the form specified by Batelco from time to time.
- (b) To be valid, the Order shall be accompanied by a matching UMP and/or UMPB Link order for the relevant BSN to enable Batelco to implement the relevant SNFM Space. This applies only when the OLO requires the backhaul to be provided by Batelco.
- (c) Subject to Batelco accepting the Order, and the OLO fulfilling all of its obligations under the Supply Terms, Batelco will provide and the OLO will acquire the SNFM Service as specified in the Order accepted by Batelco.
- (d) The provision of the SNFM Service is available as set out below, subject to availability of space, capacity and related equipment.

- 5.3 Variation

Batelco may at any time on reasonable notice, which shall be in all cases not less than 3 months, to the OLO change the technical specification of the Service provided that any such change does not materially affect the substance of the performance of the Service.

- 5.4 Validation and Delivery Times

ANNEX C: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES TERMS (With track changes showing amendments after reviewing Batelco's response to the Draft Order)

- (a) The maximum validation time and delivery lead time for the installation for an Order placed by the OLO and accepted by Batelco shall be as follows:

SNFM Service component	Validation time between receipt of Order and acceptance or rejection of that Order	Delivery time from Batelco acceptance and receipt of Charges in advance
Co-mingling excluding the following BSN (MAN, RIF, CEN, MHQ, JUF and ITN)	5 Working Days	65 Working Days
Co-mingling for the following six BSN (MAN, RIF, CEN, MHQ, JUF and ITN)	5 Working Days	30 Working Days
Dedicated OLO Space	5 Working Days	65 Working Days
Shelter OLO Space	5 Working Days	45 Working Days

- (b) The Service Rebates for a failure to meet the maximum validation time and delivery lead time in the preceding paragraph are as follows:

Target	Rebate for each Working Day or part of a Working Day late
SNFM validation time	One (1) SNFM Service Credit subject to the SNFM Validation Rebate Cap
SNFM delivery time	One (1) SNFM Service Credit subject to the SNFM Delivery Rebate Cap

**ANNEX C: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (With track changes showing amendments after reviewing
Batelco's response to the Draft Order)**

6. CHARGES

- 6.1 The OLO shall pay to Batelco the relevant Charges determined in accordance with Schedule 3 of Batelco's Reference Offer.
- 6.2 The Billing Period in respect of the Service shall be 30 days. The Billing Period shall commence on the date of the first billing date of the Batelco billing cycle after installation and may include billing on a pro rata time basis for the period between the date the OLO was informed of the space being ready for it to install its equipment until the next billing cycle to ensure compatibility with the Batelco billing cycle.

7. FORECASTING

- 7.1 At the beginning of each calendar month, the OLO shall supply a reasonable non-binding forecast of the expected requests for the SNFM Service in each month of the twelve month period following the date of the forecast, in the form required by Batelco from time to time. The OLO shall use all reasonable endeavours to forecast accurately given Batelco is placing reliance on those forecasts to determine the number of requests expected for each month.
- 7.2 The OLO acknowledges that Batelco is not liable for not delivering any additional Orders for the SNFM Service which has not been forecasted in accordance with paragraph 7.1 above.

8. PRIORITY POLICY

- 8.1 The allocation of area within the BSN or within the perimeter of a BSN between OLOs shall follow:
- (a)** For the initial co-location process:
- (i) Batelco informs TRA at the end of the Initial Collocation Period whether or not the Initial Collocation process is required;
 - (ii) OLOs will specify their orders for the Server Node they intend to place an immediate order;
 - (iii) Batelco will determine for each Service Node the best collocation option that will fulfil the demand within one month, based on orders received, and will send OLOs the corresponding collocation prices;
 - (iv) OLOs will have two weeks to confirm their order based on the prices provided by Batelco. Confirmation will be accompanied by a non-refundable advance payment.
- (b)** For the standard co-location process. After the Initial Collocation Period has ended the following collocation rules must be followed:
- (i) First Come First Served: this rule ensures that OLOs that ask for collocation space earlier are served first. As is the case in duct and civil works, the first OLO shall bear all the associated costs and shall be reimbursed by other OLOs coming afterwards on a pro rata basis;

**ANNEX C: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (With track changes showing amendments after reviewing
Batelco's response to the Draft Order)**

- (ii) Use It or Lose It: if an OLO has been granted space but has not used this space after 3 months, the space will be released and re-allocated. This will prevent the inefficiencies created by hoarding space;
- (iii) One single space allocated per OLO per Service Node. Where space is scarce OLOs will be initially restricted to a single space per OLO. This restriction will be reviewed on an exchange-by-exchange basis to ensure proportionality. The definition and dimensions of a "space" is an equivalent of a single rack.

9. INSURANCE

- 9.1 Until such time as the parties agree otherwise and after obtaining approval of the Authority for such amendment, Batelco and the OLO shall each procure and maintain for the duration of this service third party liability insurance policies with the other being named as a named beneficiary to cover personal injury and property damage claims up to BD300,000 for each BSN. The terms of such policies shall include provisions whereby, in the event of any claim or proceedings under the policy being brought or made against the other party, the insurers shall indemnify the other party against any costs, charges and expenses thereof. At all times the parties shall hold appropriate workman's insurance (General Organisation for Social Insurance ("GOSI")).
- 9.2 Batelco or the OLO shall provide evidence of the insurance cover referred to in paragraph 9.1 on or before the date this service commences and thereafter at any time during the period of this service as the requesting party shall reasonably require. If the requested party is unable to demonstrate to the requesting party's reasonable satisfaction that it has insurance to the required level, with a reputable insurer, the requesting party shall be entitled to effect insurance against all claims, proceedings, losses, liabilities, costs, damages and expenses caused by the other party's negligence, other default or deliberate act arising out of or in connection with this service and to recover the reasonable cost of such insurance from the other party.

10. Disputes

- 10.1 Where there is any allegation of a failure to comply with the warranties of this Service Description then the parties will apply the dispute resolution process outlined in clause 24 of the Supply Terms.

**ANNEX C: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (With track changes showing amendments after reviewing
Batelco's response to the Draft Order)**

ANNEX 1 –SNFM License

1. Batelco will grant to the OLO, for the periods set out in clause 2.2 of Schedule 9, a License to use a portion of space in the Batelco Floor/Ground BSN specified in the General Information list identified in an order for SNFM Service access in writing which is signed by Batelco in accordance with the terms of this license, the SNFM Service Description and the Supply Terms.
2. The license does not commence unless and until:
 - (a) an Order for Floor/Ground access is accepted and signed by Batelco;
 - (b) all Make Ready Work has been completed to Batelco's and OLO's satisfaction;
 - (c) all charges for the stages of the process occurring up to and including the completion of Make Ready Work have been paid; and
 - (d) the terms of this license have been signed by the OLO.
3. The license is a personal and non-transferable right. The license does not confer any rights on the OLO to lease, sub-lease or any right of ownership or possession in respect of any specific Floor/Ground. The OLO may not sub-license any right granted by this license.
4. Unless specified in the SNFM Service Description, the OLO does not have any general right to access to Floor/Ground and this license allows the OLO to access the Floor/Ground route only in strict compliance with Batelco's access policies and procedures which apply from time to time relating to security, protection and safety, physical access procedures, marking of equipment. Such access shall be supervised by Batelco at all times.
5. It is a condition of the license that the OLO shall:
 - (a) comply with the policies and directions of Batelco, including in relation to access, movement or relocation of a Floor/Ground route and relocation of the cable from, in, or between, sub-Floor/Grounds
 - (b) behave in a manner consistent with the action of a prudent Floor/Ground owner;
 - (c) so far as access is given, keep all cabling Equipment and all accessed Floor/Ground areas free of debris and in a safe and tidy condition;
 - (d) ensure no toxic or flammable materials are left anywhere near the Floor/Ground or Equipment;
 - (e) promptly notify, for correction or removal, any fault or defect in Equipment used in or near the Floor/Ground; and
 - (f) immediately notify Batelco of any damage to Floor/Ground or Equipment observed or occurring during or as a result of access by the OLO.
6. Batelco may require from the OLO to remove and replace any Equipment which does not comply with any municipal, Ministry or Regulator requirements or restrictions.

**ANNEX C: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (With track changes showing amendments after reviewing
Batelco's response to the Draft Order)**

7. For the sake of clarification, maintenance of the OLO Space shall be carried out by Batelco and the corresponding charge is included in the License fee (as set out in Schedule 3 of Batelco's Reference Offer3).
8. If Batelco by reasonable notice to the OLO requires the movement of the OLO's Floor space for Batelco's own convenience then Batelco will cover the cost of moving the Co-mingling/Dedicated OLO Space/Licensed Shelter Space and the OLO may attend to observe at its own expense.
9. If part or all of the Co-mingling/Dedicated OLO Space/Licensed Shelter Space needs to be moved for reasons outside the control of Batelco and by order of a competent court, municipality, authority, Ministry or Regulator, the OLO must share a proportion of charges or costs related to the move of its Equipment, upon justified and reasonable methodology approved by the Regulator.
10. After obtaining written approval from the Regulator, Batelco may immediately suspend provision of the service until further notice if the OLO causes, or Batelco can justify that the OLO will cause, physical or technical harm to any telecommunications network (whether of Batelco or another operator).
11. Batelco may terminate the license granted to the OLO on 30 days written notice to the OLO, copied to the Regulator, if:
 - (a) The OLO is in breach of the UMP Service or SNFM Service description which is left unremedied for a period of 21 days after written notification by Batelco to the OLO;
 - (b) fibre is not lit along the full route of the Floor/Ground access for any consecutive period of 12 months during the term of the license;
 - (c) the OLO ceases to be a Licensed Operator; or
 - (d) the OLO installs Equipment in or near any Floor/Ground which is not reasonably related to services supplied with the UMP and/or does not meet the requirements specified in 3.3 (c) above.
12. Batelco may terminate the license granted to the OLO on 6 months written notice to the OLO, copied to TRA, if Batelco's right to use the Floor/Ground or right of way is revoked, terminates or expires.
13. Either party may terminate the license immediately if the other party is in breach of the license or of the Supply Terms as they relate to the Floor/Ground and the breach remains unremedied for a period of 10 Working Days.
14. The OLO may in any case terminate the license by giving Batelco three months written notice.
15. If the license is terminated then the OLO shall remove all Equipment from, in and around the Floor/Ground within 90 days of the notice of termination. If the OLO fails to comply with this clause then Batelco is entitled to remove the OLO's Equipment at the latter's costs.

LLU Reference Offer Order

ANNEX C: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES TERMS (With track changes showing amendments after reviewing Batelco's response to the Draft Order)



16. The OLO will be deemed to have abandoned the OLO's Equipment if it does not access the Equipment for any period of 24 consecutive months. If the OLO's Equipment is abandoned then Batelco may exercise the same rights as for the removal of OLO Equipment as indicated in paragraph 15 above.
17. The terms of this license take precedence over any other terms which might apply to the OLO's access to Batelco's Co-mingling/Dedicated OLO Space/Licensed Shelter Space.

LLU Reference Offer Order

**ANNEX C: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (With track changes showing amendments after reviewing
Batelco's response to the Draft Order)**



SCHEDULE 1 – SNFM License

Licensed Floor/Shelter Area

BSN

Leased/Owned outright by Batelco

Designated Floor Area (sq. meter or percentage)

License fee (annual)

Plan number

Note: the details listed above will be provided and attached to each SNFM License granted to the OLO

LLU Reference Offer Order

**ANNEX C: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (With track changes showing amendments after reviewing
Batelco's response to the Draft Order)**



ANNEX 2 SNFM CHARGES

The OLO shall pay to Batelco the relevant Charges as set out in Schedule 3 of Batelco's Reference Offer.

**ANNEX C: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (With track changes showing amendments after reviewing
Batelco's response to the Draft Order)**

ANNEX 3 SUMMARY OF SECURITY REQUIREMENTS

1. General Access

- 1.1 All OLO People requiring access to SNFM should have Batelco issued contractor ID Cards. ID holders should report to Security when requiring access.
- 1.2 As an exceptional alternative, OLO People requiring access to SNFM can be registered by Batelco. Registered technicians requiring access to the relevant BSN or site area shall report to Security. Security will check their central population register (“CPR”) or national identity card or other means of photographic ID against the list of OLO authorised People. If everything is correct, Security will issue an appropriate ID Card in exchange for the persons ID; details will be recorded by the security staff.
- 1.3 ID holders or registered technicians will be escorted to and from the SNFM.
- 1.4 Supervision of work whilst the person is inside the relevant BSN or site area is at the discretion of Batelco.

2. Emergency Event Access

- 2.1 No unregistered emergency access will be allowed unless access has been agreed by the Senior Manager Security through liaison with the OLO account manager following notification. The notification should provide relevant personal details, the OLO whose equipment is to be worked on and the date/times(s) of the access required and the circumstances of the emergency.
- 2.2 The persons requiring access shall report to security. Security will check their CPR or other means of photographic ID against the personal details provided to the Senior Manager Security.
- 2.3 If everything is verified, Security will issue an appropriate ID Card in exchange for the persons ID; details will be recorded by the security staff.
- 2.4 The person will be escorted to and from the SNFM.

3. Refusal of Access

- 3.1 Batelco reserves the right to refuse access to any non-registered visitor of the OLO for the reasons below:-
 - (a) Visitors without photographic ID.
 - (b) Visitor who cannot provide a valid contact name and number.
 - (c) Visitors whose contact person cannot be contacted or reached.

LLU Reference Offer Order

ANNEX C: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES TERMS (With track changes showing amendments after reviewing Batelco's response to the Draft Order)



- (d) Visitors who have disregarded rules in the past.
- (e) During times of emergency.

**ANNEX C: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (With track changes showing amendments after reviewing
Batelco's response to the Draft Order)**



ANNEX 4 -PROCEDURE FOR REMOTE SITE ACCESS BY OTHER COMPANIES' STAFF

1. Other companies' staff will be given co-location access rights, they will go through normal procedure of completing a contractor's work notification (CWN) whereby all applications will undergo a thorough screening process (Ministry of Interior vetting procedures which may take up to 2 working days). Once clearance is received, passes will be issued to the other companies' staff.
2. Working Hours (from 7 a.m. to 2:45 p.m. daily except Fridays, Saturdays, and public holidays):
 - (a) Other companies' staff will only be given permission to access the remote site(s) pedestrian gate during working hours.
 - (b) Other companies' staff will be escorted by Batelco staff at all times.
 - (c) Batelco's escorting staff member will be given remote access to the site's main entrance door.
 - (d) Once both other companies staff and Batelco's staff member arrive in the lobby of the building, access will be given once Batelco's staff member has called the control room via hotline phone to remotely unset the alarm.
 - (e) If work is completed Batelco's staff member will have to call the control room to reset the alarm.
3. After working hours – call out:
 - (a) Batelco staff will call the control room of the relevant site three hours in advance when it becomes necessary to attend to a fault or maintenance work.
 - (b) Other companies' staff will be escorted by Batelco staff at all times.
 - (c) Once both Other Companies Staff and Batelco's staff member are in the lobby of building, access will be given once the Batelco staff member has called the control room via hotline phone to remotely unset the alarm.
 - (d) If work is completed Batelco staff member will have to call control room to reset the alarm.
4. If no prior arrangement made by Batelco's staff or other company's staff to do installation work after working hours, no access will be given by Batelco's security staff. If Batelco's security staff did receive prior notice that installation work will be done after working hours, the other companies' staff will still need to be escorted by Batelco staff. Maintenance work, (call-outs for fault attending) will be treated as a separate case.

**ANNEX C: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (With track changes showing amendments after reviewing
Batelco's response to the Draft Order)**



UMP Backhaul Service Description

ANNEX C: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES TERMS (With track changes showing amendments after reviewing Batelco's response to the Draft Order)

SERVICE DESCRIPTION 2-C: UMP BACKHAUL SERVICE

1. THE SERVICE

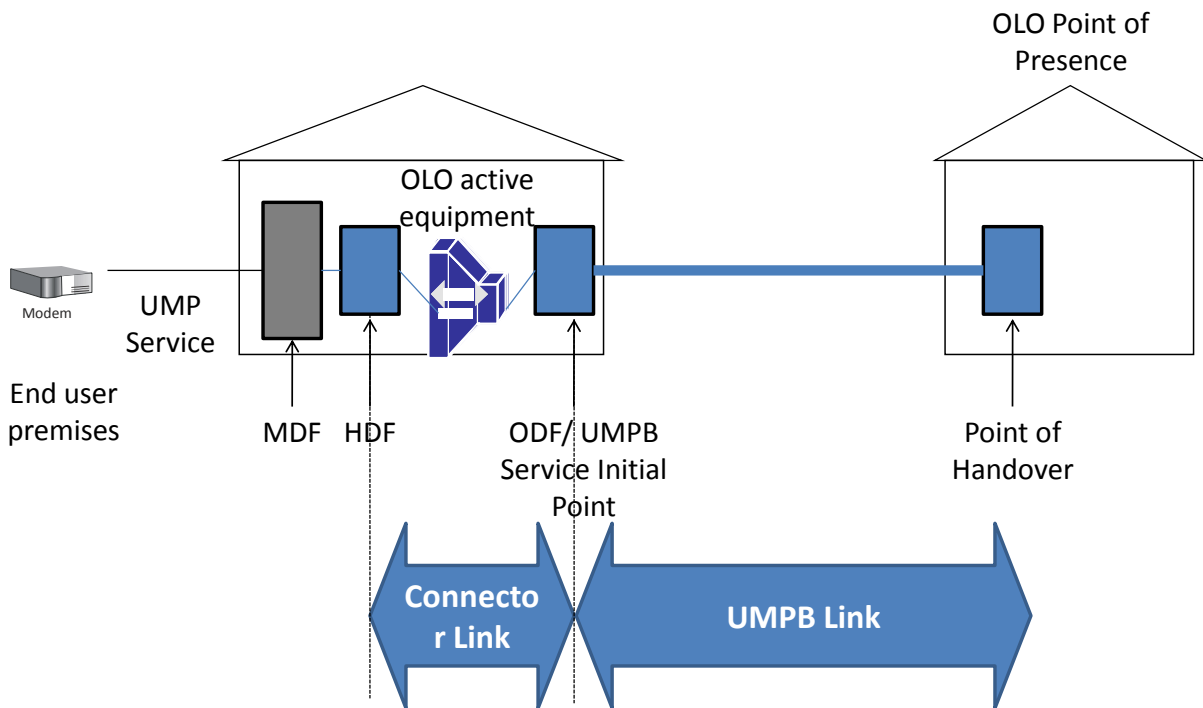
The UMP Backhaul Service is a wholesale service for carrying OLO's traffic within Bahrain in relation to the UMP between an OLO's active equipment used to provide End Users with a service based on the UMP Service and the OLO's Point of Presence.

Available To: Holders of an appropriate Individual Telecommunications or Class License granted by the Telecommunications Regulatory Authority.

Permitted Traffic: Traffic covered by the OLO's license.

Technical backhaul diagram

The following diagram is for illustrative purposes only. Where there are discrepancies, the text in this Service Description will prevail.



2. DEFINITIONS

Capitalised terms not defined in this Service Description are defined in the Dictionary. Terms defined in this Service Description are specific to it.

Connector Link means a connection provided by the OLO between the HDF used for the UMP Service and the UMPB Service Initial Point

**ANNEX C: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (With track changes showing amendments after reviewing
Batelco's response to the Draft Order)**

Covered Failure means an actual or suspected fault or failure in the UMPB Link

Delivery Lead Time means the delivery lead time described in paragraph 3.3.

End User Premises means a permanent physical location in Bahrain owned or controlled by a person or organisation who is neither a licensee, nor affiliated to or controlled by a licensee, and from which location that person conducts business and receives telecommunication services.

UMPB Availability Rebate Cap means 20% of the monthly rental Charges for the UMPB Link.

UMPB Link means a dedicated transmission service between the UMPB Service Initial Point and the Point of Handover at an OLO's Point of Presence provided in accordance with this Service Description and the Supply Terms.

UMPB Service Initial Point means an optical distribution frame which is the handover frame for the connection between the backhaul and the OLO's- transmission equipment established for the purposes of supporting UMP backhaul capacity in Bahrain.

Response Time means Batelco's Response Times in respect of each Covered Failure measured over a period of one (1) month..

Restoration Time means Batelco's Restoration Times in respect of each Covered Failure measured over a period of one (1) month.

Order means a written request by the OLO for the UMPB Service in a form issued or approved by Batelco from time to time.

Point of Handover has the meaning defined in paragraph 3.1 (c).

Point of Presence means an aggregation or network connection point in the OLO's Network located at premises owned or shown to be leased by the OLO, but for the avoidance of doubt cannot be at an End User Premises, cable station, earth station, manhole, power room, lead-in pipe, duct, outdoor cabinet, MDF, riser room or anywhere not on the main island of Bahrain unless connected by a permanent physical connection above or under sea level and accessible by Batelco.

Service Commencement Date for each Order for the UMPB Service shall be the date identified in accordance with paragraph 3.3.

Service Period means the term of a UMPB Service which shall be a minimum of twelve months from the Service Commencement Date and which continues automatically until terminated.

Service Credit means, in relation to a single Service Credit, that amount represented by two percent (2%) of the monthly Charges for the UMPB Service.

Target Availability means the amount of time over a month during which the UMPB Service does not suffer a certain type of failure (expressed on a percentage basis).

**ANNEX C: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (With track changes showing amendments after reviewing
Batelco's response to the Draft Order)**

Threshold Response Time means, in relation to a Covered Failure, the threshold response times set out in paragraph 3.6(b).

Threshold Restoration Time means, in relation to a Covered Failure, the threshold restoration times set out in paragraph 3.6(b).

Total Service Credit Cap means, in relation to any month, 160% of the monthly Charges for the UMPB Service.

3. TERMS

3.1 Nature of Service

- (a) The Service comprises the UMPB Link set out in this service description which Batelco offers to provide.
- (b) The UMPB Link is a component which an OLO may require to connect to the UMP Service. For the avoidance of doubt, other network components or services will be necessary to complete the connection including the SNFM Service and are available from Batelco.
- (c) The Point of Handover for the UMPB Service at the OLO's Point of Presence is an optical distribution frame located at the OLO's Point of Presence.
- (d) The UMPB Service presentation interface to the OLO will be optical or electrical.

3.2 Ordering

- (a) The OLO shall submit a correctly completed Order to Batelco to request supply of the UMPB Service in accordance with the Supply Terms. The Order shall be submitted in the form specified by Batelco from time to time.
- (b) To be valid, the Order shall be accompanied by reference information identifying the UMP Service order to enable Batelco to implement the UMPB.
- (c) Subject to Batelco obtaining all necessary consents and the OLO fulfilling all of its obligations under the Supply Terms in particular provisioning and installation of the Connector Link, Batelco will provide and the OLO will acquire the UMPB Service as specified in the Order accepted by Batelco.
- (d) The provision of the UMPB Service is available at the bandwidths greater than 2Mbps and Charges as per the CAT/LLCO services and any potential Carrier Ethernet based services that Batelco may introduce, subject to availability of capacity and related equipment.

3.3 Delivery and Installation Lead Times for UMPB

**ANNEX C: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (With track changes showing amendments after reviewing
Batelco's response to the Draft Order)**

- (a) The maximum Delivery Lead Time for the installation of a UMPB Service for an Order placed by the OLO and accepted by Batelco will be 30 Working Days.
- (b) The Service Rebates for a failure to meet the Delivery Lead Time in the preceding paragraph are as follows:

Actual provisioning time (Number of weeks after expiration of the applicable Delivery Lead Time)	Total applicable service Rebate
0-1 week	10 Service Credits
1> - 2 weeks	25 Service Credits
> 2 weeks	45 Service Credits (and an addition of 30 Service Credits for each further period or part period of 2 weeks delay)

This is subject to a UMP Service and an SNFM Service being implemented and provisioning of the Connector Link and Equipment related to the UMPB Service by the OLO.

3.4 Testing

- (a) Batelco will test the UMPB Link by conducting an industry standard stability test for up to 24 hours, the final results of which will be observable by the OLO if they are in attendance. The complete final results of the test shall be handed over in writing to the OLO (including latency tests). Batelco will notify the OLO when the test has been successfully completed and the OLO will accept the UMPB Service on that date by acceptance signature. If the OLO does not sign for acceptance it will be deemed to have accepted the UMPB Service with effect from the date of the notification of test completion unless the OLO notifies Batelco within two days from the notification of test completion that the OLO does not accept the UMPB Service indicating the reason for not accepting the UMPB Service.
- (b) The Service Commencement Date is the date of actual or deemed acceptance under paragraph 3.4(a).
- (c) Batelco is available (if requested by the OLO) to support testing of the connection between the OLO's Point of Presence and the relevant MDF in the

ANNEX C: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES TERMS (With track changes showing amendments after reviewing Batelco's response to the Draft Order)

BSN as arranged by the OLO, in each case by attending the OLO's Point of Presence to conduct such testing at Batelco's standard rates.

3.5 Performance and uptime

- (a) The Target Availability for the UMPB Service is set out below, including the Service Rebate regime that will apply if the relevant Target Availability falls below the stated threshold:

Calculation	Target Availability	Service Rebate
Target Availability for periods free of Covered Failure	99.9%	2 Service Credits per 0.01% or part thereof below the Target Availability but not exceeding the UMPB Availability Rebate Cap

- (b) For the protection line provided by Batelco as part of the backhaul (45Mbps and higher speeds), specifications of the protection line shall be provided by Batelco to the OLO upon request.

3.6 Fault response and repair

- (a) The OLO will as soon as practicable after becoming aware of a Fault with the UMPB Link or any other Covered Failure, notify Batelco of that Fault in accordance with the procedures for the reporting of faults set out in Schedule 6 (Fault Management) of Batelco's Reference Offer for the reporting of faults, Fault investigation and identification of the Fault Owner and Other Affected Party.
- (b) Batelco agrees to observe the following Response Times and Restoration Times:

Fault type	Response Time	Restoration Time	Threshold Response Time	Threshold Restoration Time

ANNEX C: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES TERMS (With track changes showing amendments after reviewing Batelco's response to the Draft Order)

Covered Failure	10 minutes	3 hours	15 minutes	5 hours

- (c) Where Batelco's Response Time or Restoration Time exceeds the Threshold Response Time or Threshold Restoration Time respectively for Covered Failures then the following Service Rebates, assessed on a quarterly basis, will apply:

Fault type (as defined in Schedule 6)	Time by which Mean Response Time exceeds Threshold Response Time	Service Rebate	Time by which Mean Restoration Time exceeds Threshold Restoration Time	Service Rebate
Covered Failure	15 minutes	4 Service Credits	1 hour	4 Service Credits
	1 hour	5 Service Credits	2 hours	5 Service Credits
	> 1 hour	6 Service Credits	> 2hours	6 Service Credits + 1 Service Credit for every additional hour

3.7 Alternative Transmission Facilities

Batelco shall in respect of the provision of the UMP Service only facilitate the provision of a dedicated transmission service by the OLO or a third party Licensed Operator using relevant Facilities and following the procedure under schedule 7 ("Facilities Access Service") of Batelco's Reference Offer in relation to a BSN being:

- (a) duct licensed by Batelco under a Duct license;
- (b) non-exclusive access to the Duct chamber; and
- (c) where necessary the provision of alternative dedicated transmission service-riser room and cable tray access granted to the OLO or to the third party Licensed

**ANNEX C: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (With track changes showing amendments after reviewing
Batelco's response to the Draft Order)**

Operator substantially in the form of Batelco's standard duct and riser licenses as amended from time to time subject to the Charges specified under Schedule 3 of the Reference Offer. Batelco shall not be liable to the OLO in any way whatsoever in respect of termination of these arrangements with the third party Licensed Operator.

3.8 Termination

- (a) At any time after the minimum Service Period of (6) six months, the OLO shall be entitled to terminate an UMPB Service agreement on three month's written notice to Batelco.
- (b) Where termination occurs before the end of the minimum service period or within the notice period then the OLO shall pay to Batelco by way of liquidated damages the charges for the UMPB Service until the end of the notification period or the minimum service period whichever is greater.

3.9 OLO Obligations

- (a) The OLO shall provide Batelco with suitable space for, and access at reasonable times to, any Batelco equipment required to be located in any building under the OLO's control in which the UMPB Service is located. If consent is required from a third party, the OLO shall procure such consent. Batelco is not required to pay the OLO or any third party for the preparation or use of, or access to, space provided for the purpose of the UMPB Service.
- (b) If Batelco equipment requires a continuous electricity supply (of the nature specified by Batelco), air conditioning and electricity connection points, they shall be supplied, in the location specified by Batelco, by the OLO at its expense. Such electricity shall be available at the same level of supply, protection and continuity as that available to the OLO's own equipment.
- (c) The OLO shall provide Batelco and any employee, agent, affiliate or contractor of Batelco with all information and assistance that person may reasonably require to test, commission and maintain the UMPB Service and to assess, respond to and restore Covered Failures.
- (d) Where there is any allegation of a failure to comply with the warranties of this Service Description then the parties will apply the dispute resolution process outlined in clause 24 of the Supply Terms.

3.10 Variation

**ANNEX C: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (With track changes showing amendments after reviewing
Batelco's response to the Draft Order)**



Batelco may at any time on reasonable notice, in all cases being not less than 3 months, to the OLO change the technical specification of the Service provided that any such change does not materially affect the substance of the performance of the Service.

4. CHARGES

- 4.1 The OLO shall pay to Batelco the relevant LLCO/CAT Charges determined in accordance with Schedule 3 of Batelco's Reference Offer.

**ANNEX C: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (With track changes showing amendments after reviewing
Batelco's response to the Draft Order)**



UMP Specific Information Service Description

**ANNEX C: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (With track changes showing amendments after reviewing
Batelco's response to the Draft Order)**

SERVICE DESCRIPTION: UMP SPECIFIC INFORMATION SERVICE

1. THE SERVICE

The UMP Specific Information Service is a wholesale service for providing information solely for use in relation to the UMP Service.

Available To: Holders of an appropriate Individual Telecommunications or Class License granted by the Telecommunications Regulatory Authority.

2. DEFINITIONS

Capitalised terms not defined in this Service Description are defined in the Dictionary. Terms defined in this Service Description are specific to it.

Batelco Service Node (BSN) means a Batelco exchange building specified in the list issued by Batelco.

CLTQS means Batelco's centralized line testing and pre-qualification solution.

HDF means Batelco provided handover frame for the connection of a Tie Cable.

MDF means the Batelco owned main distribution frame in a BSN enabling provision of a UMP.

Network Boundary means the Batelco distribution point at customer premises contemplated by Batelco's fixed services license.

SNFM Service means the Service Node Facilities Management Service used in conjunction with this service description as specified in service description 2-B of the Reference Offer.

Specific Information means the information to be provided by Batelco to the OLO as specified in paragraph 3.1 (b) below.

Specific Information Delivery Rebate Cap means 20% of the Specific Information Charge.

Specific Information Service Credit means, in relation to a single Service Credit, that amount represented by 5% of the Specific Information Charge.

Specific Information Validation Rebate Cap means 20% of the Specific Information Charge.

Tie Cable means a cable connecting the UMP from the MDF to the HDF provided by Batelco.

**ANNEX C: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (With track changes showing amendments after reviewing
Batelco's response to the Draft Order)**

UMP means an existing two wire metallic path connection between the HDF and the Network Boundary comprising a UMPL, jumper cable connecting the UMPL and the Tie Cable, and Tie Cable connecting the MDF with the HDF.

UMPL means an existing two wire metallic path connection between a Batelco MDF and the Network Boundary.

3. TERMS

3.1 Nature of Service

- (a) The Service comprises the provision by Batelco to the OLO of information detailed under (b) below:
 - i. where that information is reasonably available;
 - ii. on an Order request basis; and
- (b) Subject to 3.1 (a), the Specific Information comprises at the BSN level:
 - i. The number of active lines;
 - ii. The number of non-active lines;
 - iii. The geographical location, a boundary map and list of contiguous address blocks and a free helpdesk line to answer questions regarding contiguous addresses;
 - iv. The average length of the UMPLs (in meters);
 - v. Power availability at each BSN for the SNFM Service;
 - vi. BSN space availability for the SNFM Service;
 - vii. UMPL entry points (being the first joint box nearest to the BSN) and Duct capacity availability;
 - viii. UMPL characteristics (being diameter, results from any quality tests solely on the UMPL itself, technical interference, control and, where not comprised in the ANFP, spectral management plan information); and
 - ix. Results of any xDSL tests performed by Batelco not comprising Batelco's centralised line testing qualification system or CLTQS information.
- (c) The parties acknowledge and agree that the Specific Information shall be treated as Confidential Information under these Supply Terms.
- (d) Each party acknowledges and agrees that the helpdesk service under b (iii) above is intended as a supporting service only to the provision of boundary maps and contiguous address lists. The OLO should consult this information first before calling the helpdesk.

3.2 Ordering

The OLO shall submit a correctly completed Order to Batelco to request supply of the UMP Specific Information Service in accordance with this Service

**ANNEX C: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (With track changes showing amendments after reviewing
Batelco's response to the Draft Order)**

Description and the Supply Terms. The Order shall be submitted in the form specified by Batelco from time to time.

3.3 Validation and Delivery Times

(a) The maximum validation time and delivery lead time for the validation or provision of an Order placed by the OLO and accepted by Batelco shall be as follows:

Specific Information Service component	Validation time between receipt of Order and acceptance or rejection of that Order	Delivery time from Batelco acceptance per BSN
Specific information - all categories	5 Working Days	N/A
Specific information - categories 3.1 (b) (i)-(viii)	See "all categories" above	15 Working Days
Specific information category 3.1 (b) (ix)	See "all categories" above	5 Working Days

(b) The Service Rebates for a failure to meet the maximum validation time and delivery lead time in the preceding paragraph are as follows:

Target	Rebate for each Working Day or part of a Working Day late
Specific Information validation time	1 Specific Information Service Credit subject to the Specific Information Validation Rebate Cap

**ANNEX C: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (With track changes showing amendments after reviewing
Batelco's response to the Draft Order)**

Specific Information delivery time	1 Specific Information Service Credit subject to the Specific Information Delivery Rebate Cap
------------------------------------	---

3.4 OLO Obligations

- a) The OLO acknowledges that clauses 18 (“Intellectual Property”) and 21 (“confidentiality”) in Schedule 9 of Batelco’s Supply Agreement shall apply.
- b) On termination of the UMP Service, the OLO shall return the Specific Information in accordance with clause 21.17 of Schedule 9 of Batelco’s Supply Agreement.
- c) Where there is any allegation of a failure to comply with the warranties of this Service Description then the parties will apply the dispute resolution process outlined in clause 24 of the Supply Terms.

4. CHARGES

The OLO shall pay to Batelco the relevant Charges determined in accordance with Schedule 3 of Batelco’s Reference Offer.

**ANNEX D: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Draft Order version with track changes)**



Annex D

**LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICE TERMS
(Draft Order version with track changes)**

**ANNEX D: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Draft Order version with track changes)**



Unbundled Metallic Path Service Description

**ANNEX D: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Draft Order version with track changes)**



SERVICE DESCRIPTION 2-A: UNBUNDLED METALLIC PATH SERVICE

1. THE SERVICE

The **UMP Service** is an access service which provides the **OLO** the full useable spectrum of a dedicated metallic path to an end user. Batelco does not deploy pair gain systems on its Network **therefore** removal of pair gain Equipment is not part of the UMP Service.

A technical description of the metallic path is available in Annex 4 of this Service Description, for illustrative purposes only.

Available To: Holders of an Individual National Fixed Services License (NFL) or an Internet Service Provider Class License (ISP) granted by the Telecommunications Regulatory Authority.

Traffic: Traffic permitted by the licenses held by the OLO.

2. DEFINITIONS

Capitalised terms not defined in this Service Description are defined in the Dictionary of the Supply Terms. Terms defined in this Service Description are specific to it.

ANFP means Batelco's Access Network Frequency Plan issued pursuant to paragraph 1.3 of Annex A ("Implementation") of Access Order No.1 of 2009 which is a spectrum management plan for controlling interference, caused by cross talk, within a metallic access network as reviewed and amended from time to time.

Batelco Service Node (BSN) means a Batelco exchange building specified in the list issued by Batelco pursuant to paragraph 3.2 Annex A ("Implementation") of Access Order No.1 of 2009.

Blocks means those blocks in 100 pair units installed either on the MDF or HDF forming part of the UMP Service.

Blocks and Tie Cables Delivery Rebate Cap means 200% of the monthly HDF Block Rental Charge or monthly Tie Cable Rental Charge where applicable.

Blocks and Tie Cables Validation Rebate Cap means 200% of the monthly HDF Block Rental Charge or monthly Tie Cable Rental Charge where applicable.

CLTQS means Batelco's centralized line testing and pre-qualification solution

Covered Failure means an actual or suspected failure in the UMPL.

**ANNEX D: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Draft Order version with track changes)**



End User Consent means the written consent of an End User duly completed and signed to receive a service by means of amongst other components a UMP Service supplied to the OLO in accordance with a **UMP Request**, which consent is provided to Batelco by or on behalf of the End User. For the avoidance of doubt the End User Consent can be in the form of the terms and conditions signed by the customer when requesting a service from the OLO.

End User Management means all aspects of interface with the customer product support and billing of the End User by the OLO in relation to each End User contracting with the OLO for using the UMP Service and all customer support by the OLO in relation to maintenance issues related to the End User.

Fault means faults related to the provision of the Local Loop Unbundling Service

Fault Management means Faults described in Schedule 6 of Batelco's Reference Offer

Gaining Operator means an OLO who presents Batelco a UMP Request. .

HDF means Batelco provided handover distribution frame for the connection of a Tie Cable.

Infrastructure Availability means in accordance with paragraph 4.1 (b) for non-active UMPLs Batelco carries out a physical survey of the availability of the UMPL between the DP and the MDF.

Implementation Date means the target date by which Batelco shall complete an UMP Request.

Line Continuity means a tone test carried out by Batelco from time to time in relation to the UMPL:

- For active lines, between the HDF and the line side of the MDF; and
- For non-active lines, between the HDF and the relevant street cabinet and the street cabinet and the Network Boundary as part of implementation of a UMP Request, except in case of Distant collocation where the test is completed from the MDF.

Losing Operator means an OLO whose End User is subject to a UMP Request given to Batelco by a Gaining Operator.

LPQM means Batelco's line plant query manager giving the theoretical distance and broadband performance on the basis of the address of the End-user.

Response Time means Batelco's Response Times in respect of each Covered Failure.

Restoration Time means Batelco's Restoration Times in respect of each Covered Failure.

MDF means the Batelco owned main distribution frame in a BSN enabling provision of a UMP

**ANNEX D: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Draft Order version with track changes)**



MP means metallic path

Network Boundary means the Batelco distribution point at customer premises contemplated by Batelco's fixed services license.

NTP means Network Termination Point

Order means a written request by the OLO for Blocks and Tie Cables in a form issued or approved by Batelco from time to time.

Response Rebate Cap means 16% of the monthly rental Charges for the UMPL (8 Service Credits).

Restoration Rebate Cap means 320% of the monthly rental Charges for the UMPL (160 Service Credits).

Service Credit means, in relation to a single Service Credit, that amount represented by five percentage (5%) of the monthly rental Charges for the UMPL.

SNFM Service means the Service Node Facilities Management Service used in conjunction with this service description as specified in service description 2-B of the Reference Offer.

Service Qualification means the analysis carried out by Batelco to confirm whether a UMP service can be provided on the Batelco network by checking:

- (a) Line Continuity ; and/or
- (b) Infrastructure Availability; and/or
- (c) CLTQS (active UMPLs) or LPQM (non-active UMPL) on an information only basis.

Threshold Response Time means, in relation to a Covered Failure, the threshold response times set out in paragraph 7.2.

Threshold Restoration Time means, in relation to a Covered Failure, the threshold restoration times set out in paragraph 7.2.

Tie Cable means a cable connecting the UMP from the MDF to the HDF provided by Batelco.

UMP means an existing two wire metallic path connection between the HDF and the Network Boundary comprising a UMPL, jumper cable connecting the UMPL and the Tie Cable, and Tie Cable connecting the MDF with the HDF together with Blocks for the HDF and MDF.

**ANNEX D: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Draft Order version with track changes)**



UMP Cease Request means a request by an End User to Batelco or the OLO on the request of the End User to reverse a UMP Request as described in the UMP Request process set out in Annexure 1 to this Service Schedule.

UMP Invalid Transfer means a UMP Transfer:

- (a) where the End User (or its/her/his agent) did not request the services that the OLO has made a UMP Service Request in order to supply to the End User;
- (b) where a written End User Consent cannot be produced by the Gaining Operator on request by Batelco to support the UMP Request; or
- (c) which resulted from a processing error.

UMP Request means a UMP Service Request, a UMP Swap Request or UMP Cease Request, as the case may be.

UMP Service Request means the request by the OLO for a UMP Service relating to a proposed UMPL under paragraph 4.1(b) (non-active lines).

UMP Swap means on the request of the End User to Batelco or a Gaining Operator to Batelco or End User to the Gaining Operator for a change of an active UMP from Batelco to the OLO or from the OLO to Batelco or from a OLO to another OLO for the provision of services to an End User.

UMP Swap Request means a request from an OLO to make a UMP Swap.

UMPL means an existing two wire metallic path connection between a Batelco MDF and the Network Boundary.

UMPL Delivery Rebate Cap means 200% of the monthly rental Charges for the UMPL.

UMPL Validation Rebate Cap means 200% of the monthly rental Charges for the UMPL.

Useable Pair means the copper wire connection to the End User as specified in paragraph 4.1.

Wrongful Repair Charge means charges for repairs as a result of a fault report lodged to Batelco by an OLO and such faults do not relate to the UMP Service

3. SERVICE TERMS

**ANNEX D: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Draft Order version with track changes)**

- 3.1 Each party acknowledges this Service is conditional upon necessary space being prepared, accepted by the OLO and made ready in accordance with the SNFM Service.
- 3.2 Ownership of the UMP shall remain with Batelco. Without prejudicing the ability to resell licensed telecommunications services using the UMP, the OLO shall not assign, transfer or share their interest in or rights to the UMP.
- 3.3 Batelco will implement UMP Requests from the OLO and requests for configuration and provision of connections from other Licensed Operators and from itself with respect to any UMPL in accordance with Batelco's non-discriminatory provisioning schedule by area.
- 3.4 Each UMP Service or UMP Swap Request shall be for a minimum period of 1 month from the activation date of the UMP Service. If Batelco receives a UMP Cease Request for that UMP on or before the end of the first month from the activation date then the OLO shall pay Batelco the UMP pro rata aggregate rental cancellation charges for the unexpired 1 month period.
- 3.5 If Batelco terminates this service in whole or in part, then each relevant UMP Service and SNFM Service will terminate.
- 3.6 If a regulatory obligation to support or supply any specific UMP Service no longer applies, Batelco may cease to supply the UMP Service to an OLO on 12 months prior written notice. Following the giving of a notice under this clause, the OLO will not request the UMP Service for any further End Users. The OLO will also inform each existing End User that the UMP Service will terminate at the end of the 6 month period.
- 3.7 Where Batelco has reasonable objective grounds to consider that the OLO is in breach of an obligation Batelco may, after notifying the Authority and obtaining the Authority's written approval:
 - (a) suspend implementation by the OLO of the UMP Service and/or
 - (b) take any other step contemplated by the Supply Terms to protect Batelco's network or other interests.

4. END USER ACCESS

Useable Pairs

- 4.1 The OLO acknowledges that Batelco only supplies the UMP Service where subject to successful Service Qualification:
 - (a) Batelco supplies operational standard telephone PSTN and ISDN or broadband services to the same End User over the same Useable Pair as may

**ANNEX D: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Draft Order version with track changes)**

be used with the UMP Service by the OLO to provide services to the End User;
or

(b) spare copper pairs exist between the MDF and Batelco's distribution point; and where there are no objective and justifiable technical, legal or operational grounds to prevent delivery by jumpering at the MDF, jumpering at the street cabinet and/or provision of a drop wire. Batelco will provide objective reasons justified in writing to OLOs at the time of Batelco's refusal. To the extent it applies similar treatment and processes to its retail End Users, Batelco shall provision an alternative UMPL if existing suitable spare pairs are available

- 4.2 For each UMP Request the OLO warrants that it has informed the End User that the installation and operation of the UMP Service may require changes to the placement of existing telecommunications devices or changes of equipment.
- 4.3 The OLO acknowledges that the UMP Service will allow the provisioning of services to End Users but the quality of those services will be subject to the variable conditions of the Useable Pairs. The OLO acknowledges that if quality of service degradation or interruption of service arises out of or in connection with degradation of and operational life span of the UMPL, Batelco is under no obligation to replace that UMPL except in cases where failure to do so would result in undue discrimination by Batelco between its retail business and the OLO.

Maintenance

- 4.5 Batelco will provide network maintenance and support services to ensure that all of the network elements used to provide the UMP Service is provided to the OLO at the same level of quality of service and availability as Batelco provides to itself for the same or equivalent network elements.

5. EQUIPMENT

- 5.1 The provision of a UMP Service or the implementation or transfer of the Service does not include the provision of any internal cabling or any customer premises equipment and only comprises the elements specified in this service description above.

6. BLOCKS AND TIE CABLES

- 6.1 The OLO shall submit a correctly completed Order to Batelco to request supply of Blocks and Tie Cables in accordance with this Service Description. The Order shall be submitted in the form specified by Batelco from time to time.
- 6.2 To be valid, the Order shall be accompanied by reference information identifying the BSN to enable Batelco to implement the Blocks and Tie Cables Order.
- 6.3 Subject to Batelco obtaining all necessary consents and the OLO fulfilling all of its obligations under the Supply Terms in particular provisioning and installation of the

**ANNEX D: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Draft Order version with track changes)**

relevant SNFM Service, Batelco will provide and the OLO will acquire the Blocks and Tie Cables as specified in the Order accepted by Batelco.

6.4 The OLO shall pay the relevant Charges for the Blocks and Tie Cables as specified in Schedule 3 of this Reference Offer.

6.5 At any time, following the successful completion of a Blocks and Tie Cables Request, the OLO may make a request to Batelco to cease the Blocks and Tie Cables service. In this case, the OLO shall pay the Tie Cable cease charge as specified in Schedule 3 of this Reference Offer.

7 CONNECTION

7.1 Batelco will use its reasonable endeavours to connect the UMP Service on or before the relevant Implementation Date which shall be dependent on the following timescales:

(a) The maximum validation time and delivery lead time for the installation for an Order or a UMP Request placed by the OLO and accepted by Batelco shall be as follows:

UMP Service component	Validation time between receipt of Order or UMP Service Request and (for UMP Service Requests) verification or (for Orders) acceptance or rejection	Delivery time from acceptance of UMP Request or Blocks and Tie Cables Order to implementation
UMPL	5 Working Days	10 Working Days
Blocks and Tie Cables	5 Working Days	20 Working Days

(b) The Service Rebates for a failure to meet the maximum validation time and delivery lead time in the preceding paragraph are as follows:

**ANNEX D: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Draft Order version with track changes)**

Target	Rebate for each Working Day or part of a Working Day late
UMPL validation time	50% UMPL Rental Charge subject to the UMPL Validation Rebate Cap
UMPL delivery time	50% UMPL Rental Charge subject to the UMPL Delivery Rebate Cap
Blocks and Tie Cables validation time	50% HDF Block Rental Charge subject to the Blocks and Tie Cables Validation Rebate Cap
Blocks and Tie Cables delivery time	50% HDF Block Rental Charge subject to the Blocks and Tie Cables Delivery Rebate Cap

Batelco will notify the OLO when the connection has been effected in accordance with the UMP Request procedures set out in Annex 1 to this Service Description.

7.2 Fault response and repair

**ANNEX D: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Draft Order version with track changes)**

- (a) Subject to (b) below, the OLO will as soon as practicable after becoming aware of a Fault with the UMP (between the HDF and the network boundary) or any other Covered Failure, notify Batelco of that Fault in accordance with the procedures for the reporting of faults set out in Schedule 6 (Fault Management) for the reporting of faults, Fault investigation and identification of the Fault Owner and Other Affected Party. In particular, the Fault should be raised at the level of Fault Control Centre which operates 24-hours a day, 7 days a week and all days in each year in accordance with article 3.1 of Schedule 6 (Fault Management) of this Reference Offer.
- (b) The OLO shall in particular use the UMPL Fault Management form.
- (c) Batelco agrees to observe the following Response Times and Restoration Times:

Fault type	Response Time between receipt of the Fault Management form and acceptance or rejection	Restoration Time from acceptance of the Fault Management form to notification of restoration	Threshold Response Time between receipt of the Fault Management form and acceptance or rejection	Threshold Restoration Time from acceptance of the Fault Management form to notification of restoration
Covered Failure standard	60 minutes	3 Working Days	90 minutes	5 Working Days
Covered Failure premium	60 minutes	NA	90 minutes	8 hours

- (d) Where Batelco's Response Time or Restoration Time exceeds the Threshold Response Time or Threshold Restoration Time respectively for Covered Failures then the following Service Rebates, assessed on a quarterly basis per event, will apply:

**ANNEX D: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Draft Order version with track changes)**

Fault type (as defined in Schedule 6)	Time by which Response Time exceeds Threshold Response Time	Response Service Rebate	Time by which Restoration Time exceeds Threshold Restoration Time	Restoration Service Rebate
Covered Failure	15 minutes 1 hour More than 1 hour	1 Service Credit 2 Service Credits 1 Service Credits per every additional hour subject to the Response Rebate Cap	One Working Day or part of a Working Day	40 Service Credits subject to the Restoration Rebate Cap

8. FORECASTING

8.1 At the beginning of each calendar month, the OLO shall supply a non-binding forecast of the expected requests for the UMP Service in each month of the twelve month period following the date of the forecast, in the form required by Batelco from time to time. The OLO shall use all reasonable endeavours to forecast accurately given Batelco is placing reliance on those forecasts.

9 UMP TRANSFER

UMP Transfer Process

9.1 Batelco and the OLO shall comply with clause 9 and Annex 1 of this Service Description when carrying out any UMP Request.

**ANNEX D: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Draft Order version with track changes)**



9.2 The OLO shall establish robust procedures to ensure an appropriate End User Consent duly completed and signed is received and properly recorded before any UMP Service Request is notified to Batelco.

9.3 The OLO shall provide Batelco, upon request, a copy of the End User Consent (OLO's document signed by the End User explaining rights and obligations of the End User and the consequences of Unbundling).

Charges

9.4 The OLO shall pay to Batelco the relevant Charges as set out in Schedule 3 of this Reference Offer.

Responsibilities

9.5 From the time of the completion of the UMP Request, the relevant End User will no longer be a customer of Batelco for those services supplied by the OLO using the UMP Service, but instead the customer of the OLO for those services.

9.6 From the time of completion of the UMP Request, the OLO shall provide End User Management to support the UMP Services.

9.7 When a fault is reported by an End User, it is the responsibility of the OLO to perform initial tests, prior to raising a fault to Batelco, in order to validate that the fault is not within the OLO's network and equipment. In order to assist in the resolution and for efficient use of resources, the OLO shall promptly provide reasonable and complete details of the test performed when reporting the fault to Batelco. If after further investigation Batelco demonstrates the fault does not relate to the UMP Service, then the OLO shall pay the Wrongful Repair Charge (on a time basis as set in Schedule 3 of this Reference Offer).

9.8 In relation to any Batelco service:

- (a) Batelco will continue to bill the End User for any outstanding Batelco charges and other Batelco services; and
- (b) The OLO acknowledges that the End User remains liable to pay any outstanding charges to Batelco and remains subject to standard Batelco debt enforcement policies notwithstanding that the End User is at the same time an OLO Customer.

9.9 In respect of each UMP Request submitted by the OLO to Batelco, the OLO shall ensure that:

- (a) the OLO has an End User Consent for the transfer or implementation (which consent is not more than 30 days old from the date the UMP Request submission to Batelco);

**ANNEX D: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Draft Order version with track changes)**

- (b) the OLO retains records of the End User Consent and the retention is in accordance with the reasonable requirements notified to the OLO by Batelco from time to time;
- (c) the OLO has used its reasonable endeavours to ensure that the information in the UMP Request is complete and correct;
- (d) the processing of each UMP Request, at the time it is lodged, does not breach any party's contractual or other rights (but, for the avoidance of doubt, an End User Consent signed shall be deemed to be a valid notice to Batelco to terminate the relevant Batelco services);

Indemnity

9.10 Each party indemnifies the other, subject to using all reasonable endeavours to mitigate against the effect of the occurrence of the indemnified event, in respect of any loss, liability or cost incurred by a party (including third party claims or claims by any End User) in connection with a breach by the other party of the warranties given under this Service Description.

10 Billing Period

10.1 The Billing Period in respect of the Service shall be 30 days. The Billing Period shall commence on the date of the first billing date of the Batelco billing cycle after installation and may include billing on a pro rata time basis for the period between the UMP Request to the next billing cycle to ensure compatibility with the Batelco billing cycle.

**ANNEX D: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Draft Order version with track changes)**



ANNEX 1 –UMP REQUEST PROCESS

1. UMP Service Request and UMP Swap Request

- 1.1 The OLO shall make a UMP Service Request for the provision of a UMP Service by Batelco to allow the OLO to supply a new or existing service to an End User.
- 1.2 A UMP Service Request shall be in the format notified by Batelco from time to time and be submitted by the means notified by Batelco from time to time.
- 1.3 Batelco will, within 5 Working Days of receipt of any UMP Service Request or UMP Swap Request, notify the OLO whether the UMP Service Request is:
 - (a) accepted; or
 - (b) rejected.

- 1.4 Batelco may reject a UMP Service Request or UMP Swap Request if it:
 - (a) is incomplete or incorrect or illegible or cannot reasonably be understood;
 - (b) does not properly identify the End User, or provide information which does not enable Batelco to identify the Useable Pair;
 - (c) is not submitted in accordance with paragraph 2 of this Annex 1;
 - (d) in the case of a UMP Swap Request, is a UMP Invalid Transfer; or
 - (e) has any other defect notified by Batelco to the OLO at the time of rejection.

In such a case, the OLO will be charged the Rejection, reversal and withdrawal charge per UMP order charge (as set out in Schedule 3 of this Reference Offer).

- 1.5 Batelco may in its sole discretion elect to accept any UMP Service Request notwithstanding that there is any defect in that UMP Service Request if Batelco considers that such defect does not have a material effect on Batelco's ability to process the UMP Service Request and provide the UMP Service.

2. Batches

- 2.1 The OLO shall submit UMP Requests to Batelco in batches of ten or less than ten. Batches shall be:
 - (a) submitted by the means notified by Batelco from time to time;
 - (b) submitted by authorised personnel of the OLO;
 - (c) made up of only UMP Requests that comply with the requirements of this Service Description and the Supply Terms; and

**ANNEX D: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Draft Order version with track changes)**

(d) identified by a unique batch number generated by the OLO.

2.2 Batelco will only accept batches of UMP Requests that:

- (a) are delivered to Batelco during business hours;
- (b) comply with the requirements set out in paragraph 1;
- (c) do not exceed the maximum number of two batches per day.

2.3 If any batch of UMP Requests contains one or more Requests that contain one or more defects, Batelco will:

- (a) reject the defective UMP Requests by returning them to OLO; and
- (b) continue to process the valid UMP Requests within the same batch.

3. Completion of Request

3.1 If Batelco notifies the OLO that the UMP Request is accepted, then Batelco shall use its reasonable efforts to complete the UMP Request on or before the Implementation Date.

3.2 Batelco shall not be obliged to further process a UMP Request where:

- (a) The relevant UMP Service cannot meet Service Qualification;
- (b) The number of UMP Requests exceeds the Forecast for the relevant month by more than 25% which may result in Batelco not being able to process the number of UMP Requests made due to resourcing constraints without having to deploy more staff or other resources; or
- (c) An authorised person from the End User or the OLO is not available to provide further information when requested.

For the avoidance of doubt, Batelco shall resume the process on and from satisfaction of one or more of items (a) – (c) above being brought to Batelco's notice in writing by the OLO. Any Service Levels and Service Credits shall not be considered during the period between the day items (a) – (c) occur and the day one or more of items (a) – (c) above are brought to Batelco's notice in writing by the OLO.

3.3 The OLO will be charged the connection charge (as set out in Schedule 3 of this Reference Offer).

4. Notification of Completion of Request

**ANNEX D: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Draft Order version with track changes)**

- 4.1 Batelco shall, within 2 Working Days of completion of a UMP Service Request, notify the OLO of completion.
- 4.2 Batelco is entitled to rely on a UMP Request as evidence that the relevant End User has given an End User Consent in relation to the requested UMP Request and understands and is aware of the End User's continuing liability to pay any charges to Batelco when due.

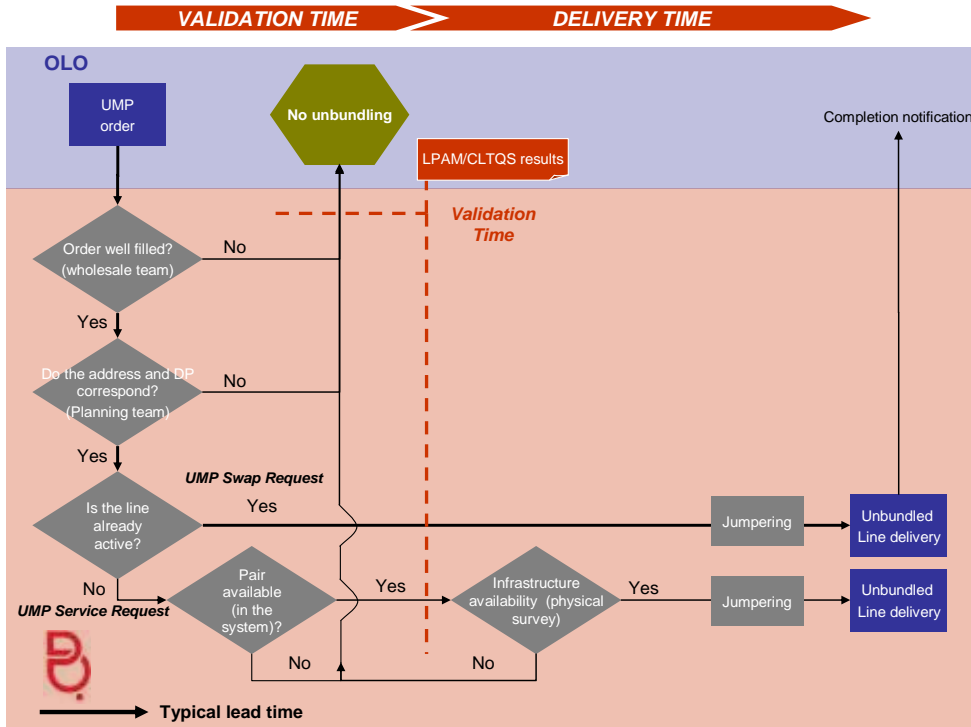
5. UMP Cease Request

- 5.1 At any time following the successful completion of a UMP Request, either:
 - (a) the relevant End User; or
 - (b) the OLO;may make a request to Batelco to cease the UMP Request.
- 5.2 Batelco will, within 2 Working Days of completion of a UMP Cease Request notify the Gaining and Losing OLOs that the UMP Cease Request has been processed.
- 5.3 The OLO will be charged the Cessation charge (as set out in Schedule 3 of this Reference Offer).

The following diagram(s) are for illustrative purpose and do not override the terms in the text of this Service Description. Where there are discrepancies, the text in this Service Description will prevail.

LLU Reference Offer Order

ANNEX D: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES TERMS (Draft Order version with track changes)

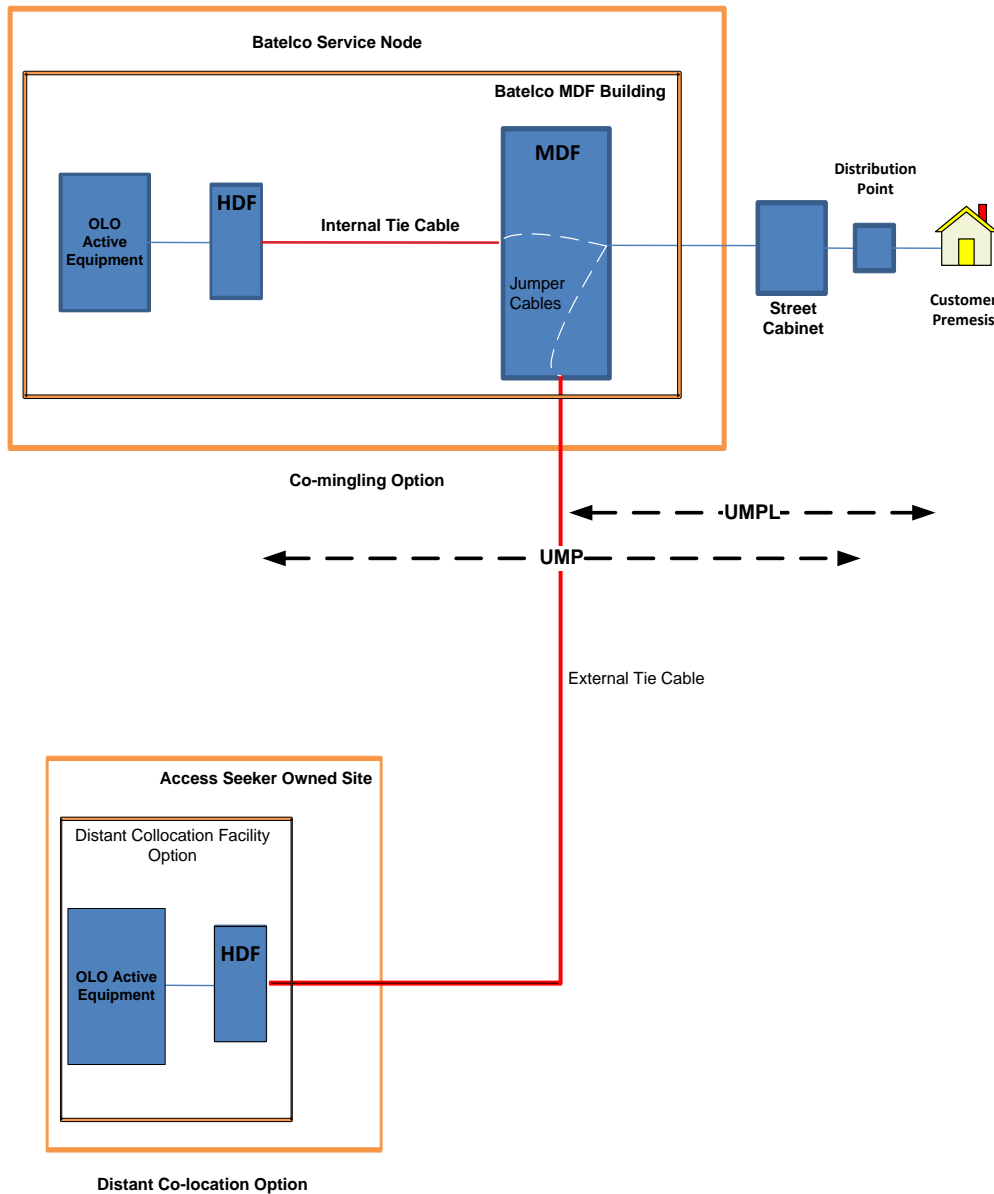


**ANNEX D: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Draft Order version with track changes)**

ANNEX 2 Technical UMP diagram (to be read with the SNFM service description)

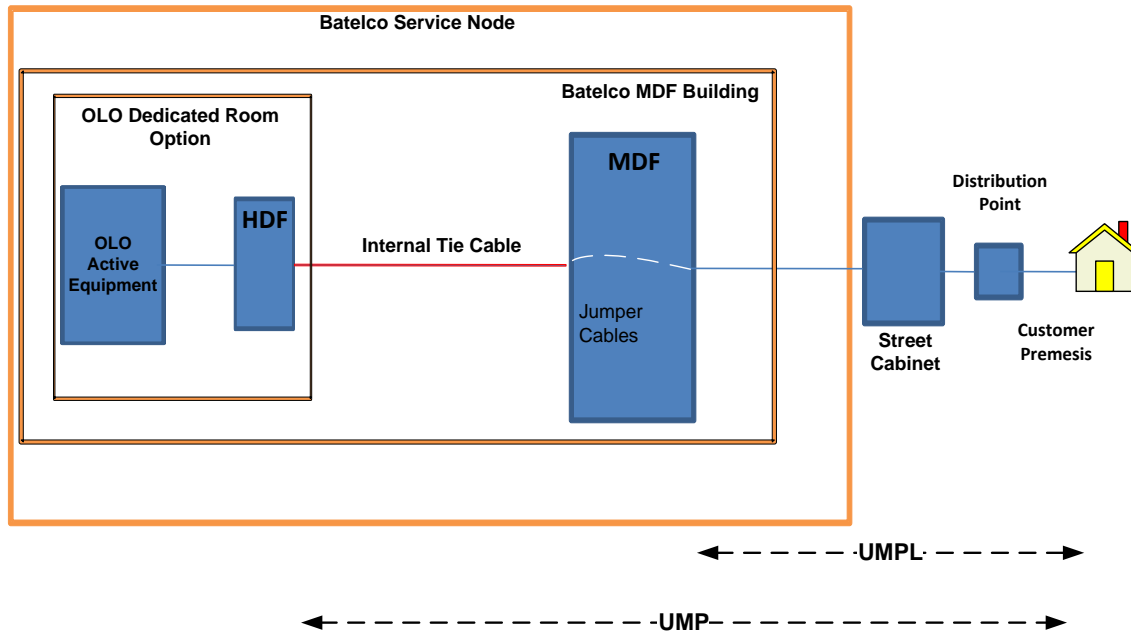
Commingling and Distant OLO Space

The following diagram(s) are for illustrative purpose and do not override the terms in the text of this Service Description. Where there are discrepancies, the text in this Service Description will prevail.

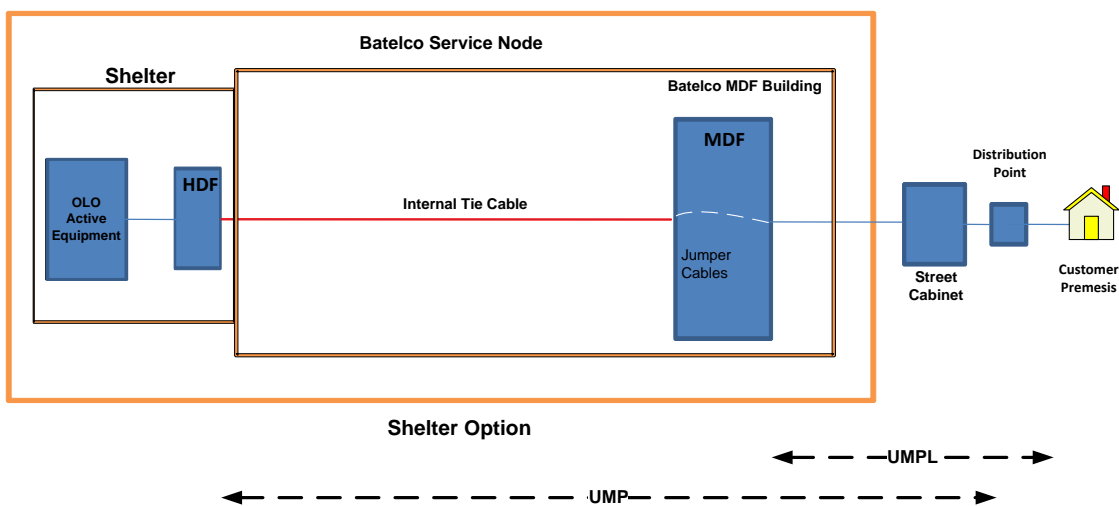


**ANNEX D: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Draft Order version with track changes)**

Dedicated OLO Space



Licensed Shelter Space



**ANNEX D: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Draft Order version with track changes)**

ANNEX 3 UMP CHARGES

Item	Chargeable Activity	Effective Date	Charge (BD)	Charge Basis
	UMPL rental		6.09	Per month
	UMPL rental (premium repair)		UMPL rental + 60%	Per month
	UMPL connection charge [active/non-active or non-served premises]		41.350	per UMP order
	UMPL Line Continuity charge		22.1	Per test. For the avoidance of doubt, the charge related to the Line Continuity test completed at the time the UMP connection is included in the UMP connection charge
	Reject, reversal, withdrawal charge per UMP order		7	
	Cessation charge		41.350	Per Cease order
	Wrongful Repair Charge		Time and materials specified under sch 3 annex 1	Per wrongful repair request
	HDF Block Rental		48	Per month per; minimum 100 pair block
	Tie Cable Jointing Charge		841	Per 100 pair tie cable
	Tie Cable rental charge		37	Per 100 pair tie

LLU Reference Offer Order



**ANNEX D: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Draft Order version with track changes)**

Item	Chargeable Activity	Effective Date	Charge (BD)	Charge Basis
				cable per month
	Tie Cable cease charge		841	Per 100 pair tie cable
	Tie Cable Duct charge (for Distant OLO Space only)		Time and materials specified under sch 3 annex 1 plus monthly duct rental charge sch 3 2-3.9	Duct rental plus initial cost of work

**ANNEX D: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Draft Order version with track changes)**

ANNEX 4 METALLIC PATH SPECIFICATION

This specification has been produced by the Batelco Networks in order to provide OLOs with the parameters of the Batelco MP. This document is provided for technical guidance only and highlights the general characteristics of the Batelco MP for information only rather than detailing specific characteristics of the particular UMP as supplied by Batelco as part of the UMP Service. The document does not form part of the legally binding service description and Batelco Reference Offer, but is produced for information only.

1. Scope

This specification defines the electrical parameters of Batelco MP from the Service Node to the Customer premises. It applies to the MP when the internal wiring and equipment are in isolation.

2. Metallic Path Parameters

The parameters of Batelco MP are defined for the copper pair from the MDF in the Service Node to the NTP in the Customer premises. The Batelco MP must be tested in isolation of the internal wiring and CPEs. The parameters are listed in table 1 below.

Parameter	Value	Notes
Electrical Continuity	The MP is a continuous connection between the MDF in Batelco Service Node to the NTP in the Customer premises.	
Insertion Loss	Max is 10 dB at 1600 Hz	
Loop Resistance	Less than 1200 Ohms	
Insulation Resistance A-B or B-A	Greater than 50 KOhm	Measured using voltage of 100 V DC.
Insulation Resistance Wire - Erath	Greater than 50 KOhm	Measured using voltage of 100 V DC.
Insulation Resistance Wire - Battery	Greater than 50 KOhm	Measured using voltage of 100 V DC.

Table 1: Batelco Metallic Path Parameters

**ANNEX D: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Draft Order version with track changes)**



2.1 Cables Types

Batelco mainly use two types of cables as follows:

2.1.1. Primary Cable

Designed primarily for installation in ducts in the Primary Side of Batelco Access Network (from MDF at the Service Node to the Cabinets). The conductors in the cable consist of a solid wire of standard annealed copper, smoothly drawn, circular in section, uniform in quality. Each conductor covered with a solid polyethylene compound Type 03 complying with BS 6234. Two appropriately coloured insulated conductors twisted together to form a pair (Each unit contains 25 pairs). The cable is sheathed with black polyethylene and sheath thickness includes the moisture barrier. The cable sheath is pneumatically tested to a pressure of 800 millibars, and sustains a constant pressure of 630±50 millibars.

2.1.2. Secondary Cable

Designed primarily for installation in ducts in the Secondary Side of Batelco Access Networks (from Cabinets to Distribution Points). Each conductor in the cable consist of a solid wire of standard annealed copper, smoothly drawn, circular in section, uniform in quality. Each conductor covered with a solid polyethylene compound Type 03 complying with BS 6234. Two appropriately coloured insulated conductors twisted together to form a pair. The cable is sheathed with black polyethylene and sheath thickness includes the moisture barrier. The interstices of the cable core are completely filled with a compound. The compound is capable, in conjunction with the insulation, of giving a cable lifetime in excess of 25 years, in the environment of Bahrain.

2.2. Cables Gauges

Batelco uses different gauges of cables such as 0.4, 0.5 and 0.63 mm. The cable gauge chosen should be of the smallest which meets the Loop Resistance limit. Cables of lower gauge should be used close to the Service Node and the gauge increased with distance from the Service Node. Figure 1 below shows the typical application of the different gauges in Batelco Access Network and Table 2 below shows the different Cable gauges parameters.

**ANNEX D: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Draft Order version with track changes)**

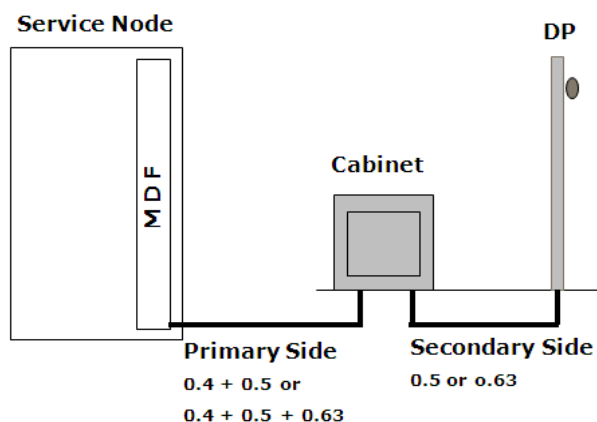


Figure 1: Typical Application of Different Gauges

Cable Gauge (mm)	Loop Resistance (Ω / Km) @ 20 °C	Mutual Capacitance (nF / Km)	Attenuation (dB / Km) @ 1600 Hz
0.4	150	60	2.37
0.5	96	64	1.84
0.63	60	64	1.47

Table 2: Different Cable Gauges Parameters

3. Metallic Path Electrical Termination

The MP consists of two copper wires designated as “A” and “B” wires.

3.1. Network Termination Point Termination

The connection to the MP at the Customer premises is a Batelco Master Socket representing the NTP.

3.1.1. Batelco Master Socket Connections

The connection to the MP is provided by Batelco Master Socket on the face plate. The connections for the socket with Voice and Broadband service are shown in Table 2 below.

Contact No	Connectivity
1	Not Used

**ANNEX D: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Draft Order version with track changes)**

2	“A” or “B” Wire
3	Shunt Connection
4	Not Used
5	“B” or “A” Wire
6	Not Used

Table 3: Batelco Master Socket Connections

The Shunt Connection is derived from the centre point between a 470 KOhm resistor and a 1.8 µF capacitor connected in series across the “A” and “B” wires. Additionally there is an overvoltage protection device connected across “A” and “B” wires. Figure 2 below shows the circuit diagram.

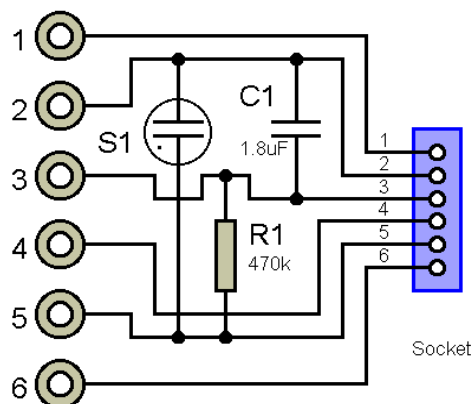


Figure 2: Batelco Master Socket Circuit Diagram

3.2. Main Distribution Frame Termination

In UMP service, no direct access to the MP end is provided at the MDF. Indirect connection is only provided via an Internal or External Tie Cable. The interface to the network end of the MP will be the HDF within the LLU OLO space.

4. Metallic Path Operation

In order to ensure network integrity, eliminate interference and for safety reasons, the equipment connected to Batelco MP must conform to the ANFP and meet the following technical requirements:

**ANNEX D: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Draft Order version with track changes)**



4.1. Power Feeding

The voltage applied to Batelco MP must not at any time exceed 120V of either polarity with respect to earth to either leg of the MP. Voltage measurement should be made using a high internal impedance (10 MOhm) voltmeter.

The current caused to flow should not exceed 60mA between either legs of the MP.

The voltages and currents limits above are absolute including AC signals at any frequency together with any DC power supplied to the CPEs.

4.2. Input Signals

Any signals applied to Batelco MP must conform to Batelco ANFP.

**ANNEX D: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Draft Order version with track changes)**



Service Node Facility and Management Service Description

**ANNEX D: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Draft Order version with track changes)**



SERVICE DESCRIPTION 2-B: SERVICE NODE FACILITIES MANAGEMENT SERVICE

1. THE SERVICE

The **SNFM Service** is an access service more particularly defined below which together with the UMP Service enables the **OLO** to provide the full useable spectrum of a dedicated metallic path to an end user.

Available To: Holders of an appropriate Individual Telecommunications or Class License granted by the Telecommunications Regulatory Authority.

Traffic: N/A

2. DEFINITIONS

Capitalised terms not defined in this Service Description are defined in the Dictionary of the Supply Terms. Terms defined in this Service Description are specific to it.

OLO Equipment means all Equipment compliant with the ANFP or other equivalent specification, provided by the OLO necessary to support the End User's ability to use a UMP Service.

ANFP means the Access Network Frequency Plan issued pursuant to paragraph 1.3 of Annex A ("Implementation") of Access Order No.1 of 2009 which is a spectrum management plan for controlling interference, caused by cross talk, within a metallic access network as reviewed and amended from time to time

Batelco Service Node (BSN) means a Batelco exchange building specified in the list issued by Batelco pursuant to paragraph 3.2 of Access Order No.1 of 2009.

Co-mingling means co-location space where the OLO Equipment is installed in a BSN in an area which may also house Batelco or other Licensed Operator Equipment unpartitioned from the OLO Equipment and from each other.

Contact Person means Batelco's personnel who can be contacted any time by staff and contractors of the OLO who need to enter the SNFM space. Batelco guarantees that in case the Contact Person cannot be reached, another official from Batelco can be reached 24 hours a day, seven days a week.

Dedicated OLO Space means a room or caged area within a BSN where an OLO has a Licensed Floor Area.

Distant OLO Space means an area owned leased or controlled by the OLO near to a BSN containing OLO Equipment which is intended to be connected to a Batelco UMP by means of an External Tie Cable.

**ANNEX D: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Draft Order version with track changes)**

Implementation Date means the date set out in an Order for a SNFM Service which shall be determined in accordance with the timescales set out in clause 11.11 of the Supply Terms.

Licensed Shelter Space means a ground area or areas within the perimeters of but not inside a BSN occupied by an OLO under a license where the OLO's Equipment is installed as more particularly shown in the plan attached to that license or any other such ground area which may be licensed if relocation takes place.

MDF means the **Batelco owned main distribution frame in a BSN enabling provision of a UMP.**

Network Boundary means the **Batelco distribution point at customer premises contemplated by Batelco's fixed services license.**

SNFM Delivery Rebate Cap means 20% of the monthly License Fee for the SNFM Space.

Point of Presence (POP) means an aggregation or network connection point in the Access Seeker's Network located at premises owned or shown to be leased by the Access Seeker or at a Batelco collocation facility, but for the avoidance of doubt cannot be at an End User Premises, cable station, earth station, manhole, power room, lead-in pipe, duct, outdoor cabinet, MDF, riser room or anywhere not on the main island of Bahrain unless connected by a permanent physical connection above sea level and accessible the Access Provider.

SNFM Space means where applicable, Licensed Floor Space, Licensed Shelter Space, Dedicated OLO Space or Distant OLO Space.

SNFM Delivery Rebate Cap means 20% of the monthly License Fee for the SNFM Space.

SNFM Service means the Service Node Facilities Management Service.

SNFM Validation Rebate Cap means 20% of the monthly License Fee for the SNFM Space.

UMPB Link means a dedicated transmission service between an OLO's active equipment used to provide End Users with a service based on the UMP Service and the OLO's Point of Presence provided in accordance with this Service Description and the Supply Terms.

UMPB Service Initial Point means an optical (or Electrical) distribution frame which is the handover frame for the connection between the backhaul and the OLO's- transmission equipment established for the purposes of supporting UMP backhaul capacity in Bahrain.

UMPL means an existing two wire metallic path connection between a Batelco MDF and the Network Boundary

3. SERVICE TERMS

3.1 The SNFM Service in each BSN comprises:

**ANNEX D: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Draft Order version with track changes)**

- (a) SNFM Space being Co-mingling, **Dedicated OLO Space and Licensed Shelter Space.**
- (b) Licensed Shelter Space – provided by the OLO – maximum 10 sq meters (subject to availability)
- (c) **Riser room access**
- (d) **Raised Flooring**
- (e) Power – DC power only from an electrical distribution board and handed over at the relevant rack with a lug connector or depending upon the OLO's Equipment, direct cable connection(s). DC and AC power supply/backup to the SNFM Space of 3 kW/h which can be increased in increments of 1kW/h up to a maximum of 7kW/h, subject to additional charges and which apply the same interruption and back up protection to this power supply as applies to other OLOs in the BSN
- (f) Light to a reasonable standard
- (g) Air conditioning – reasonable temperature and humidity control provided OLOs Equipment complying with Batelco specifications
- (h) Access arrangements for OLO staff and outside contractors
- (i) Building maintenance and repair of the SNFM Space to such standards as is adequate given the age and nature of the facility
- (j) Cleaning to a reasonable standard
- (k) Security and caging for Dedicated OLO Space
- (l) Earthing – standard point to multipoint
- (m) Fire detection and suppression provided the OLO insures its own Equipment against fire risk
- (n) Maximum loading being 300kg per square meter for a wooden raised floor and 500kg per square meter for a steel raised floor.
- (o) Lead in trays for Tie Cables and/or for UMP Backhaul
- (p) Cage fixing (on request of OLO) in relation to Dedicated OLO Space only.
Please note: rack fixing is not provided or used in the SNFM Space.

3.2 Provision of the SNFM shall be conditional on the OLO:

- (a) entering into a SNFM License substantially in the form of Annex 1 in respect of each BSN
- (b) providing a statement of conformity with the ANFP
- (c) providing copy type approval certificates paragraph 3.3 (c) below
- (d) providing of relevant and valid insurance documentation as specified under paragraph 9 of this Service Description and clause 17 of schedule 9 of the Supply Terms

**ANNEX D: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Draft Order version with track changes)**

- (e) Completion of the relevant security requirements for OLO staff and contractors as specified and referred to under paragraph 4.4 and Annex 3 of this Service Description
- 3.3 The OLO shall ensure that any Equipment connected to the UMPL:
- (a) meets the specifications and requirements defined by relevant international telecommunications and engineering standards;
 - (b) the ANFP; and
 - (c) is type approved equipment under article 38 of the Telecommunications Law and/or any type approval regulation issued by the Regulator.
- 3.4 If Batelco terminates this Service in whole, then each SNFM License will terminate.
- 3.5 If a regulatory obligation to support or supply any specific SNFM Service no longer applies, Batelco may cease to supply the SNFM Service to an OLO on 12 months prior written notice. Following the giving of a notice under this clause, the OLO will not request the SNFM Service for any further End Users. The OLO will also inform each existing End User that the SNFM Service will terminate at the end of the 6 month period.
- 3.6 Where Batelco has reasonable objective grounds to consider that the OLO is in breach of an obligation under this Service, Batelco may, subject to TRA's approval:
- (a) suspend implementation by the OLO of the SNFM Service; and/or
 - (b) take any other step contemplated by the Supply Terms to protect Batelco's network or other interests.
- 4. SNFM SPACE**
- 4.1 Batelco shall provide the SNFM Space using the order procedure specified in Schedule 7 ("Facilities Access Service") of the Reference Offer. In relation to Co-mingling, Dedicated OLO Space and Licensed Shelter Space, the parties shall enter into a SNFM License in the form set out in Annex 1 of this Service Description.
- 4.2 Unless the OLO specifically requests or there is no space available, the SNFM Space shall be commingled inside the secure space of the facility and the OLO acknowledges that other Batelco customers and Batelco will have co-mingled access to the SNFM and OLO Equipment.
- 4.3 Subject to paragraph 4.4 below, Batelco shall provide the OLO with access to the SNFM Space to allow the OLO's People to access the SNFM Space in order to enable the OLO to perform their obligations under this Service.

**ANNEX D: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Draft Order version with track changes)**

- 4.4 The OLO's People shall observe all of Batelco's instructions and procedures relating to this Service, including Batelco's security and site regulations. Nothing in any guidance, instruction or policy can be taken to mean that Batelco assumes any risk or responsibility in relation to the OLO's service, Equipment or People. An indicative summary of the current security procedures and policies is set out in Annex 3 of this Service Description. Upon completion and acceptance of the Service Request form for this SNFM Service, the OLO shall request and Batelco shall provide a copy of Batelco's summary security procedures which shall be amended from time to time in Batelco's absolute discretion. Enquiries about the details of any policy or procedure should be directed to the OLO's account manager at Batelco.
- 4.5 Batelco will provide a safe working environment for any OLO People at the SNFM Space. The OLO shall indemnify Batelco against all claims, charges costs or expenses in any way relating to injury to or death of any OLO People at or in the environs of the SNFM Space, and against all loss of or damage to the OLO Equipment or any other Batelco customer's Equipment at the SNFM Space in any way connected with the OLO's use of the SNFM Space.
- 4.6 The OLO understands and agrees that third parties such as the emergency services and law enforcement agencies may have a legal right of entry to SNFM Space and the surrounding area at any time.
- 4.7 OLO may enter the SNFM Space solely for the purposes of installing, inspecting, maintaining, adjusting, repairing, altering, replacing or removing OLO Equipment within the SNFM Space in accordance with the SNFM License. The OLO is not permitted to enter any other part of the BSN.
- 4.8 All OLO access shall be escorted access, which comprises the provision of Batelco staff to escort the OLO's People to and from the SNFM Space. Where Batelco's policies require supervision at the SNFM Space, this will be at the OLO's cost.

5. GENERAL SERVICE TERMS

- 5.1 The OLO acknowledges:
- (a) The components of this Service are provided together and with the UMP Service for the relevant BSN and are not severable. If either party terminates any of the components of the SNFM Service then all elements of the SNFM and UMP Services will terminate.
 - (b) The SNFM Service comprises the SNFM Space and additional support services set out in this service description;
 - (c) This SNFM Services does not allow personnel of the OLO physical access to any relevant Facility unless expressly stated in this service description.
- 5.2 Ordering

**ANNEX D: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Draft Order version with track changes)**

- (a) The OLO shall submit a correctly completed Order to Batelco to request supply of the SNFM Service in accordance with this service description and the Supply Agreement. The Order shall be submitted in the form specified by Batelco from time to time.
- (b) To be valid, the Order shall be accompanied by a matching UMP and/or UMPB Link order for the relevant BSN to enable Batelco to implement the relevant SNFM Space.
- (c) Subject to Batelco accepting the Order, and the OLO fulfilling all of its obligations under the Supply Terms, Batelco will provide and the OLO will acquire the SNFM Service as specified in the Order accepted by Batelco.
- (d) The provision of the SNFM Service is available as set out below, subject to availability of space, capacity and related equipment.

5.3 Variation

Batelco may at any time on reasonable notice, which shall be in all cases not less than 3 months, to the OLO change the technical specification of the Service provided that any such change does not materially affect the substance of the performance of the Service.

5.4 Validation and Delivery Times

- (a) The maximum validation time and delivery lead time for the installation for an Order placed by the OLO and accepted by Batelco shall be as follows:

SNFM Service component	Validation time between receipt of Order and acceptance or rejection of that Order	Delivery time from Batelco acceptance and receipt of Charges in advance
Co-mingling excluding the following BSN (MAN, RIF, CEN, MHQ, JUF and ITN)	5 Working Days	65 Working Days
Co-mingling for the following six BSN (MAN, RIF, CEN, MHQ, JUF and ITN)	5 Working Days	30 Working Days
Dedicated OLO Space	5 Working Days	65 Working Days

**ANNEX D: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Draft Order version with track changes)**

Shelter OLO Space	5 Working Days	45 Working Days
-------------------	----------------	-----------------

- (b) The Service Rebates for a failure to meet the maximum validation time and delivery lead time in the preceding paragraph are as follows:

Target	Rebate for each Working Day or part of a Working Day late
SNFM validation time	5% of monthly per sq meter License Fee subject to the SNFM Validation Rebate Cap
SNFM delivery time	5% of monthly per sq meter License Fee subject to the SNFM Delivery Rebate Cap

6. CHARGES

- 6.1 The OLO shall pay to Batelco the relevant Charges determined in accordance with Schedule 3 of this Reference Offer.
- 6.2 The Billing Period in respect of the Service shall be 30 days. The Billing Period shall commence on the date of the first billing date of the Batelco billing cycle after installation and may include billing on a pro rata time basis for the period between the date the OLO was informed of the space being ready for it to install its equipment until the next billing cycle to ensure compatibility with the Batelco billing cycle.

7. FORECASTING

- 7.1 At the beginning of each calendar month, the OLO shall supply a non-binding forecast of the expected requests for the SNFM Service in each month of the twelve month period following the date of the forecast, in the form required by Batelco from time to time. The OLO shall use all reasonable endeavours to forecast accurately given Batelco is placing reliance on those forecasts to determine the number of requests expected for each month.

**ANNEX D: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Draft Order version with track changes)**

7.2 The OLO acknowledges that Batelco is not liable for not delivering any additional Orders for the SNFM Service which has not been forecasted in accordance with paragraph 7.1 above.

9 PRIORITY POLICY

7.3 The allocation of area within the BSN or within the perimeter of a BSN between OLOs shall follow:

(a) For the initial co-location process:

- (i) Batelco informs TRA at the end of the Initial Collocation Period whether or not the Initial Collocation process is required;
- (ii) OLOs will specify their orders for the Server Node they intend to place an immediate order;
- (iii) Batelco will determine for each Service Node the best collocation option that will fulfil the demand within one month, based on orders received, and will send OLOs the corresponding collocation prices;
- (iv) OLOs will have two weeks to confirm their order based on the prices provided by Batelco. Confirmation will be accompanied by a non-refundable advance payment.

(b) For the standard co-location process. After the Initial Collocation Period has ended the following collocation rules must be followed:

- (i) First Come First Served: this rule ensures that OLOs that ask for collocation space earlier are served first. As is the case in duct and civil works, the first OLO shall bear all the associated costs and shall be reimbursed by other OLOs coming afterwards on a pro rata basis;
- (ii) Use It or Lose It: if an OLO has been granted space but has not used this space after 3 months, the space will be released and re-allocated. This will prevent the inefficiencies created by hoarding space;
- (iii) One single space allocated per OLO per Service Node. Where space is scarce OLOs will be initially restricted to a single space. This restriction will be reviewed on an exchange-by-exchange basis to ensure proportionality. The definition and dimensions of a “space” is an equivalent of a single rack.

8. INSURANCE

8.1 Batelco and the OLO shall procure and maintain for the duration of this service:

**ANNEX D: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Draft Order version with track changes)**

- a) Third party liability insurance policies with Batelco and the OLO as named beneficiaries to cover injury and property damage claims up to BD300,000 for each BSN; and
- b) In respect of the OLO's People, appropriate workman's insurance (General Organisation for Social Insurance ("GOSI"))

The terms of such policies of insurance shall include provisions whereby, in the event of any claim or proceedings in respect of which the either party would be entitled to receive indemnity under the policy, being brought or made against the other, the insurers shall indemnify the other party against any costs, charges and expenses thereof.

- 8.2 Batelco or the OLO shall provide evidence of the insurance cover referred to in paragraph 9.1 on or before the date this service commences and thereafter at any time during the period of this service as the requesting party shall reasonably require. If the requested party is unable to demonstrate to the requesting party's reasonable satisfaction that it has a reasonable level of insurance, with a reputable insurer, the requesting party shall be entitled to effect insurance against all claims, proceedings, losses, liabilities, costs, damages and expenses caused by the other party's negligence, other default or deliberate act arising out of or in connection with this service and to recover the reasonable cost of such insurance from the other party.

**ANNEX D: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Draft Order version with track changes)**

ANNEX 1 –SNFM License

1. Batelco will grant to the OLO, for the periods set out in clause 2.2 of Schedule 9, a License to use a portion of space in the Batelco Floor/Ground BSN specified in the General Information list identified in an order for SNFM Service access in writing which is signed by Batelco in accordance with the terms of this license, the SNFM Service Description and the Supply Terms.
2. The license does not commence unless and until:
 - (a) an Order for Floor/Ground access is accepted and signed by Batelco;
 - (b) all Make Ready Work has been completed to Batelco's and OLO's satisfaction;
 - (c) all charges for the stages of the process occurring up to and including the completion of Make Ready Work have been paid; and
 - (d) the terms of this license have been signed by the OLO.
3. The license is a personal and non-transferable right. The license does not confer on the OLO to lease, sub-lease or any right of ownership or possession in respect of any specific Floor/Ground. The OLO may not share or sub-license any right granted by this license.
4. Unless specified in the SNFM Service Description, the OLO does not have any general right to access to Floor/Ground and this license allows the OLO to access the Floor/Ground route only in strict compliance with Batelco's access policies and procedures which apply from time to time relating to security, protection and safety, physical access procedures, marking of equipment. Such access shall be supervised by Batelco at all times.
5. It is a condition of the license that the OLO shall:
 - (a) comply with the policies and directions of Batelco, including in relation to access, movement or relocation of a Floor/Ground route and relocation of the cable from, in, or between, sub-Floor/Grounds
 - (b) behave in a manner consistent with the action of a prudent Floor/Ground owner;
 - (c) so far as access is given, keep all cabling Equipment and all accessed Floor/Ground areas free of debris and in a safe and tidy condition;
 - (d) ensure no toxic or flammable materials are left anywhere near the Floor/Ground or Equipment;
 - (e) promptly notify, for correction or removal, any fault or defect in Equipment used in or near the Floor/Ground;
 - (f) immediately notify Batelco of any damage to Floor/Ground or Equipment observed or occurring during or as a result of access by the OLO.

**ANNEX D: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Draft Order version with track changes)**

6. Batelco may require from the OLO to remove and replace any Equipment which does not comply with any municipal, Ministry or Regulator requirements or restrictions.
7. For the sake of clarification, maintenance of the OLO Space shall be carried out by Batelco and the corresponding charge is included in the License fee (as set out in Schedule 3 of this Reference Offer³).
8. If Batelco by reasonable notice to the OLO requires the movement of the OLO's Floor space for Batelco's own convenience then Batelco will cover the cost of moving the Co-mingling/Dedicated OLO Space/Licensed Shelter Space and the OLO may attend to observe at its own expense.
9. If part or all of the Co-mingling/Dedicated OLO Space/Licensed Shelter Space needs to be moved for reasons outside the control of Batelco and by order of a competent court, municipality, authority, Ministry or Regulator, the OLO must share a proportion of charges or costs related to the move of its Equipment, upon justified and reasonable methodology.
10. After obtaining written approval from the Regulator, Batelco may immediately suspend provision of the service until further notice if the OLO causes, or Batelco can justify that the OLO will cause, physical or technical harm to any telecommunications network (whether of Batelco or another operator).
11. Batelco may terminate the license granted to the OLO on 30 days written notice to the OLO, copied to the Regulator, if:
 - (a) Breach of the UMP Service or SNFM Service description which is left unremedied for a period of 21 days after written notification by Batelco to the OLO
 - (b) fibre is not lit along the full route of the Floor/Ground access for any consecutive period of 12 months during the term of the license;
 - (c) the OLO ceases to be a Licensed Operator;
 - (d) the OLO installs Equipment in or near any Floor/Ground which is not reasonably related to services supplied with the UMP and/or does not meet the requirements specified in 3.3 (c) above.
 - (e) the Floor/Ground becomes unsafe or unsuitable for its purpose;
12. Batelco may terminate the license granted to the OLO on 6 months written notice to the OLO, copied to the Regulator, if:
 - (f) Batelco's right to use the Floor/Ground or right of way is revoked, terminates or expires.

**ANNEX D: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Draft Order version with track changes)**



13. Either party may terminate the license immediately if the other party is in breach of the license or of the Supply Terms as they relate to the Floor/Ground and the breach remains unremedied for a period of 10 Working Days.
14. The OLO may in any case terminate the license by giving Batelco three months written notice.
15. If the license is terminated then the OLO shall remove all Equipment from, in and around the Floor/Ground within 90 days of the notice of termination. If the OLO fails to comply with this clause then Batelco is entitled to remove the OLO's Equipment at the latter's costs.
16. The OLO will be deemed to have abandoned the OLO's Equipment if it does not access the Equipment for any period of 24 consecutive months. If the OLO's Equipment is abandoned then Batelco may exercise the same rights as for the removal of OLO Equipment identified above.
17. The terms of this license take precedence over any other terms which might apply to the OLO's access to Batelco's Co-mingling/Dedicated OLO Space/Licensed Shelter Space.

LLU Reference Offer Order

**ANNEX D: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Draft Order version with track changes)**



SCHEDULE 1 – SNFM License

Licensed Floor/Shelter Area

BSN

Leased/Owned outright by Batelco

Designated Floor Area (sq m or percentage)

License fee (yearly)

Plan number

Note: the details listed above will be provided and attached to each SNFM License granted to the OLO

**ANNEX D: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Draft Order version with track changes)**

ANNEX 2 SNFM CHARGES

Item	Chargeable Activity	Effective Date	Charge (BD)	Charge Basis
	License Fee <ul style="list-style-type: none"> • Co-mingled Licensed Floor Space • Dedicated OLO Space • Licensed Shelter Space 		350 1050 350 25	Per rack footprint per month Per first rack footprint per month Per each rack footprint thereafter per month Per sq meter per month
	SNFM Order Charge		19.250	Per order
	Security ID Cards rental		2	Per ID Card per month
	BSN site access – escorted planned normal working hours (from 7 a.m. to 2:45 p.m. daily except Fridays, Saturdays, and public holidays)		21	Per site visit; minimum 3 hours for each 3 hours
	BSN site access – escorted planned outside working hours		31	Per site visit; minimum 3 hours for each 3 hours
	BSN site access – escorted unplanned normal working hours (from 7 a.m. to 2:45 p.m. daily except Fridays, Saturdays, and public holidays)		62	Per site visit; minimum 3 hours for each 3 hours
	BSN site access – escorted unplanned outside working hours		93	Per site visit; minimum 3 hours for each 3 hours
	Additional Power		70	Rental per kw per year. Usage per

LLU Reference Offer Order



**ANNEX D: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Draft Order version with track changes)**

Item	Chargeable Activity	Effective Date	Charge (BD)	Charge Basis
				kwh per year, power option builds and capacity upgrade survey fee. Stand by power fees.
	SNFM set up fee – co-mingling		Time and materials specified under sch 3 annex 1	
	Reject, reversal, withdrawal charge per SNFM order		7	Per SNFM order
	Cessation charge per SNFM		19.250	Per license

**ANNEX D: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Draft Order version with track changes)**



ANNEX 3 SUMMARY SECURITY REQUIREMENTS

1. General Access

- 1.1 All OLO People requiring access to SNFM should have Batelco issued contractor ID Cards. ID holders should report to Security when requiring access.
- 1.2 As an exceptional alternative, OLO People requiring access to SNFM can be registered by Batelco. Registered technicians requiring access to the relevant BSN or site area shall report to Security. Security will check their central population register (“CPR”) or national identity card or other means of photographic ID against the list of OLO authorised People. If everything is correct, Security will issue an appropriate ID Card in exchange for the persons ID; details will be recorded by the security staff.
- 1.3 ID holders or registered technicians will be escorted to and from the SNFM.
- 1.4 Supervision of work whilst the person is inside the relevant BSN or site area is at the discretion of Batelco.

2. Emergency Event Access

- 2.1 No unregistered emergency access will be allowed unless access has been agreed by the Senior Manager Security through liaison with the OLO account manager following notification. The notification should provide relevant personal details, the OLO whose equipment is to be worked on and the date/time(s) of the access required and the circumstances of the emergency.
- 2.2 The persons requiring access shall report to security. Security will check their CPR or other means of photographic ID against the personal details provided to the Senior Manager Security.
- 2.3 If everything is verified, Security will issue an appropriate ID Card in exchange for the persons ID; details will be recorded by the security staff.
- 2.4 The person will be escorted to and from the SNFM.

**ANNEX D: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Draft Order version with track changes)**



3. Refusal of Access

3.1 Batelco reserves the right to refuse access to any visitor in its absolute discretion, including, but not restricted to, the reasons below:-

- (a) Visitors without photographic ID
- (b) Visitors who have disregarded rules in the past.
- (c) During times of emergency.

**ANNEX D: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Draft Order version with track changes)**



**ANNEX 4 -PROCEDURE FOR REMOTE SITE ACCESS TO THE OTHER COMPANIES
STAFF**

1. Other companies' staff will be given co-location rights, they will go through normal procedure of completing a contractor's work notification (CWN) whereby all Bahraini nationals will undergo a thorough screening process (Ministry of Interior vetting procedures which may take up to 2 working days). Once we receive the clearance, passes will be issued to other companies' staff.
2. Working Hours (from 7 a.m. to 2:45 p.m. daily except Fridays, Saturdays, and public holidays)
 - (a) Other companies' staff will only be given permission to access the remote site(s) pedestrian gate during working hours.
 - (b) Other companies' staff will be escorted by Batelco staff at all times.
 - (c) Batelco's escorting staff member will be given remote access to the site's main entrance door.
 - (d) Once both Other Companies Staff and Batelco's staff member arrive in the lobby of the building, access will be given once Batelco's staff member has called the control room via hotline phone to remotely unset the alarm.
 - (e) If work is completed Batelco's staff member will have to call the control room to reset the alarm.
3. After working hours – call out
 - (a) Batelco staff will call the control room of the relevant site three hours in advance when it becomes necessary to attend to a fault or maintenance work.
 - (b) Other companies' staff will be escorted by Batelco staff at all times.
 - (c) Once both Other Companies Staff and Batelco's staff member are in the lobby of building, access will be given once the Batelco staff member has called the control room via hotline phone to remotely unset the alarm.
 - (d) If work is completed Batelco staff member will have to call control room to reset the alarm.
4. If no prior arrangement made by Batelco's staff or other company's staff to do installation work after working hours, no access will be given by Batelco's security staff. If Batelco's security staff did receive prior notice that installation work will be done after working hours, the other companies' staff will still need

LLU Reference Offer Order

ANNEX D: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES TERMS (Draft Order version with track changes)



to be escorted by Batelco staff. Maintenance work, (call-outs for fault attending) will be treated as a separate case.

**ANNEX D: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Draft Order version with track changes)**



UMP Backhaul Service Description

**ANNEX D: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Draft Order version with track changes)**

SERVICE DESCRIPTION 2-C: UMP BACKHAUL SERVICE

5. THE SERVICE

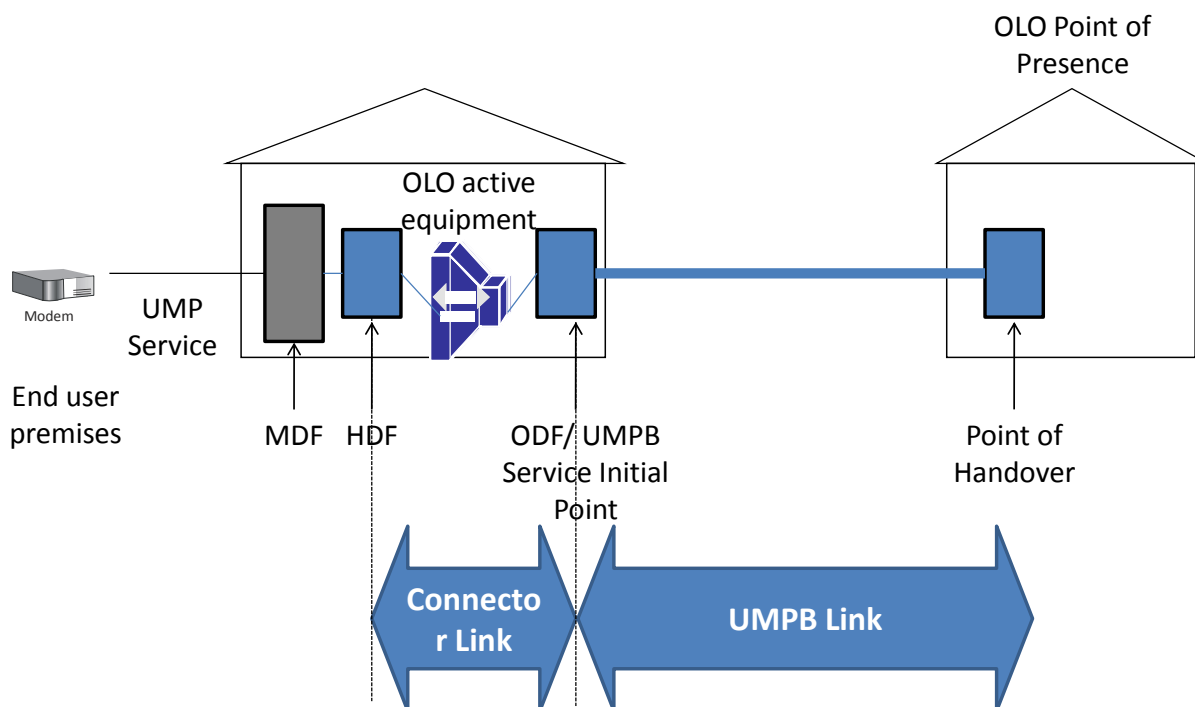
The **UMP Backhaul Service** is a wholesale service for carrying OLO's traffic within Bahrain in relation to the UMP between an OLO's active equipment used to provide End Users with a service based on the UMP Service and the OLO's Point of Presence.

Available To: Holders of an appropriate Individual Telecommunications or Class License granted by the Telecommunications Regulatory Authority.

Permitted Traffic: Traffic covered by the OLO's license.

Technical backhaul diagram

The following diagram is for illustrative purpose and do not override the terms in the text of this Service Description. Where there are discrepancies, the text in this Service Description will prevail.



**ANNEX D: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Draft Order version with track changes)**

2. DEFINITIONS

Capitalised terms not defined in this Service Description are defined in the Dictionary. Terms defined in this Service Description are specific to it.

Connector Link means a connection provided by the OLO between the HDF used for the UMP Service and the UMPB Service Initial Point

Covered Failure means an actual or suspected fault or failure in the UMPB Link

Delivery Lead Time means the delivery lead time described in paragraph 3.3.

End User Premises means a permanent physical location in Bahrain owned or controlled by a person or organisation who is neither a licensee, nor affiliated to or controlled by a licensee, and from which location that person conducts business and receives telecommunication services.

UMPB Availability Rebate Cap means 20% of the monthly rental Charges for the UMPB Link.

UMPB Link means a dedicated transmission service between the UMPB Service Initial Point and the Point of Handover at an OLO's Point of Presence provided in accordance with this Service Description and the Supply Terms.

UMPB Service Initial Point means an optical distribution frame which is the handover frame for the connection between the backhaul and the OLO's- transmission equipment established for the purposes of supporting UMP backhaul capacity in Bahrain.

Mean Response Time means the average of Batelco's Response Times in respect of each Covered Failure measured over a quarter (being three (3) consecutive months).

Mean Restoration Time means the average of Batelco's Restoration Times in respect of each Covered Failure measured over a quarter (being three (3) consecutive months).

Order means a written request by the OLO for the UMPB Service in a form issued or approved by Batelco from time to time.

Point of Handover has the meaning defined in paragraph 3.1 (c).

Point of Presence means an aggregation or network connection point in the OLO's Network located at premises owned or shown to be leased by the OLO, but for the avoidance of doubt cannot be at an End User Premises, cable station, earth station, manhole, power room, lead-in pipe, duct, outdoor cabinet, MDF, riser room or anywhere not on the main island of Bahrain unless connected by a permanent physical connection above or under sea level and accessible by Batelco.

Service Commencement Date for each Order for the UMPB Service shall be the date identified in accordance with paragraph 3.3.

Service Period means the term of a UMPB Service which shall be a minimum of twelve months from the Service Commencement Date and which continues automatically until terminated.

**ANNEX D: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Draft Order version with track changes)**

Service Credit means, in relation to a single Service Credit, that amount represented by two percentage (2%) of the monthly Charges for the UMPB Service.

Target Availability means that amount of time over a quarter, being three (3) consecutive months, during which the UMPB Service does not suffer a certain type of failure, expressed on a percentage basis.

Threshold Response Time means, in relation to a Covered Failure, the threshold response times set out in paragraph 3.6(b).

Threshold Restoration Time means, in relation to a Covered Failure, the threshold restoration times set out in paragraph 3.6(b).

Total Service Credit Cap means, in relation to any month, 160% of the monthly Charges for the UMPB Service.

3. TERMS

3.1 Nature of Service

- (a) The Service comprises the UMPB Link set out in this service description which Batelco offers to provide.
- (b) The UMPB Link is a component which an OLO may require to connect to the UMP Service. For the avoidance of doubt, other network components or services will be necessary to complete the connection including the SNFM Service and are available from Batelco.
- (c) The Point of Handover for the UMPB Service at the OLO's Point of Presence is an optical distribution frame located at the OLO's Point of Presence.
- (d) The UMPB Service presentation interface to the OLO will be optical or electrical.

**ANNEX D: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Draft Order version with track changes)**

3.2 Ordering

- (a) The OLO shall submit a correctly completed Order to Batelco to request supply of the UMPB Service in accordance with the Supply Terms. The Order shall be submitted in the form specified by Batelco from time to time.
- (b) To be valid, the Order shall be accompanied by reference information identifying the UMP Service order to enable Batelco to implement the UMPB.
- (c) Subject to Batelco obtaining all necessary consents and the OLO fulfilling all of its obligations under the Supply Terms in particular provisioning and installation of the Connector Link, Batelco will provide and the OLO will acquire the UMPB Service as specified in the Order accepted by Batelco.
- (d) The provision of the UMPB Service is available at the bandwidths and Charges set out below, subject to availability of capacity and related equipment.

3.3 Delivery and Installation Lead Times for UMPB

- (a) The maximum Delivery Lead Time for the installation of a UMPB Service for an Order placed by the OLO and accepted by Batelco will be 30 Working Days.
- (b) The Service Rebates for a failure to meet the Delivery Lead Time in the preceding paragraph are as follows:

Actual provisioning time (Number of weeks after expiration of the applicable Delivery Lead Time)	Rebate
0-1 week	10 Service Credits
1-2 weeks	15 Service Credits
> 2 weeks	20 Service Credits + 30 Service Credits for each further period or part period of 2 weeks delay

This is subject to a UMP Service and an SNFM Service being implemented and provisioning of the Connector Link and Equipment related to the UMPB Service by the OLO.

3.4 Testing

**ANNEX D: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Draft Order version with track changes)**

- (a) Batelco will test the UMPB Link by conducting an industry standard stability test for up to 24 hours, the final results of which will be observable by the OLO if they are in attendance. The complete final results of the test shall be handed over in writing to the OLO (including latency tests). Batelco will notify the OLO when the test has been successfully completed and the OLO will accept the UMPB Service on that date by acceptance signature. If the OLO does not sign for acceptance it will be deemed to have accepted the UMPB Service with effect from the date of the notification of test completion unless the OLO notifies Batelco within two days from the notification of test completion that the OLO does not accept the UMPB Service indicating the reason for not accepting the UMPB Service.
- (b) The Service Commencement Date is the date of actual or deemed acceptance under paragraph 3.4(a).
- (c) Batelco is available (if requested by the OLO) to support testing of the connection between the OLO's Point of Presence and the relevant MDF in the BSN as arranged by the OLO, in each case by attending the OLO's Point of Presence to conduct such testing at Batelco's standard rates.

3.5 Performance and uptime

- (a) The Target Availability for the UMPB Service is set out below, including the Service Rebate regime that will apply if the relevant Target Availability falls below the stated threshold:

Calculation	Target Availability	Service Rebate
Target Availability for periods free of Covered Failure	99.9%	2 Service Credits per 0.01% or part thereof below the Target Availability but not exceeding the UMPB Availability Rebate Cap

- (b) For the protection line provided by Batelco as part of the backhaul (45Mbits and higher speeds), specifications of the protection line shall be provided by Batelco to the OLO upon request.

3.6 Fault response and repair

**ANNEX D: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Draft Order version with track changes)**

- (a) The OLO will as soon as practicable after becoming aware of a Fault with the UMPB Link or any other Covered Failure, notify Batelco of that Fault in accordance with the procedures for the reporting of faults set out in Schedule 6 (Fault Management) of Batelco's Reference Offer for the reporting of faults, Fault investigation and identification of the Fault Owner and Other Affected Party.
- (b) Batelco agrees to observe the following Response Times and Restoration Times:

Fault type	Response Time	Restoration Time	Threshold Response Time	Threshold Restoration Time
Covered Failure	10 minutes	3 hours	15 minutes	5 hours

- (c) Where Batelco's Response Time or Restoration Time exceeds the Threshold Response Time or Threshold Restoration Time respectively for Covered Failures then the following Service Rebates, assessed on a quarterly basis, will apply:

Fault type (as defined in Schedule 6)	Time by which Mean Response Time exceeds Threshold Response Time	Service Rebate	Time by which Mean Restoration Time exceeds Threshold Restoration Time	Service Rebate
Covered Failure	15 minutes	4 Service Credits	1 hour	4 Service Credits
	1 hour	5 Service Credits	2 hours	5 Service Credits
	> 1 hour	6 Service Credits	> 2hours	6 Service Credits + 1 Service Credit for every additional hour

**ANNEX D: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Draft Order version with track changes)**



3.7 Alternative Transmission Facilities

Batelco shall in respect of the provision of the UMP Service only facilitate the provision of a dedicated transmission service by the OLO or a third party Licensed Operator using relevant Facilities and following the procedure under schedule 7 (“Facilities Access Service”) of Batelco’s Reference Offer in relation to a BSN being:

- (a) duct licensed by Batelco under a Duct license;
- (b) non-exclusive access to the Duct chamber; and
- (c) where necessary to provision the alternative dedicated transmission service-riser room and cable tray access

granted to the OLO or to the third party Licensed Operator substantially in the form of Batelco’s standard duct and riser licenses as amended from time to time subject to the Charges specified under Schedule 3 of the Reference Offer. Batelco shall not be liable to the OLO in any way whatsoever in respect of termination of these arrangements with the third party Licensed Operator.

3.8 Termination

- (a) At any time after the minimum Service Period of six months, the OLO shall be entitled to terminate an UMPB Service agreement on three month’s written notice to Batelco.
- (b) On termination, the OLO shall pay to Batelco by way of liquidated damages the charges for the UMPB Service until the end of the notification period or the minimum service period whichever is greater.

3.9 OLO Obligations

- (a) The OLO shall provide Batelco with suitable space for, and access at reasonable times to, any Batelco equipment required to be located in any building under the OLO’s control in which the UMPB Service is located. If consent is required from a third party, the OLO shall procure such consent. Batelco is not required to pay the OLO or any third party for the preparation or use of, or access to, space provided for the purpose of the UMPB Service.

**ANNEX D: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Draft Order version with track changes)**

- (b) If Batelco equipment requires a continuous electricity supply (of the nature specified by Batelco), air conditioning and electricity connection points, they shall be supplied, in the location specified by Batelco, by the OLO at its expense. Such electricity shall be available at the same level of supply, protection and continuity as that available to the OLO's own equipment.
- (c) The OLO shall provide Batelco and any employee, agent, affiliate or contractor of Batelco with all information and assistance that person may reasonably require to test, commission and maintain the UMPB Service and to assess, respond to and restore Covered Failures.

**3.10 Variation **

Batelco may at any time on reasonable notice, in all cases being not less than 3 months, to the OLO change the technical specification of the Service provided that any such change does not materially affect the substance of the performance of the Service.

4. CHARGES

- 4.1 The OLO shall pay to Batelco the relevant Charges determined in accordance with Schedule 3 of this Reference Offer.
- 4.2 Monthly charge

Speed (kbps)	Monthly Charge (BD)
2048	223
DS3	5208
STM-1	8777

Where an OLO will acquire Duct Rental to access the Service Node, then following charges will apply

Item	Chargeable Activity	Effective Date	Charge (BD)	Basis
	Riser license rental charge (in connection with alternative backhaul provision)		25	Per meter per month
	Duct rental (in connection with alternative backhaul provision)		See sch 3 item []	Per meter per bore per month

**ANNEX D: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Draft Order version with track changes)**



UMP Specific Information Service Description

**ANNEX D: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Draft Order version with track changes)**



SERVICE DESCRIPTION: UMP SPECIFIC INFORMATION SERVICE

1. THE SERVICE

The **UMP Specific Information Service** is a wholesale service for providing information solely for use in relation to the UMP Service.

Available To: Holders of an appropriate Individual Telecommunications or Class License granted by the Telecommunications Regulatory Authority.

2. DEFINITIONS

Capitalised terms not defined in this Service Description are defined in the Dictionary. Terms defined in this Service Description are specific to it.

Batelco Service Node (BSN) means a Batelco exchange building specified in the list issued by Batelco pursuant to paragraph 3.2 of Access Order No.1 of 2009.

CLTQS means Batelco's centralized line testing and pre-qualification solution

HDF means Batelco provided handover frame for the connection of a Tie Cable

MDF means the Batelco owned main distribution frame in a BSN enabling provision of a UMP

Network Boundary means the Batelco distribution point at customer premises contemplated by Batelco's fixed services license.

SNFM Service means the Service Node Facilities Management Service used in conjunction with this service description as specified in service description 2-B of the Reference Offer.

Specific Information means the information to be provided by Batelco to the OLO as specified in paragraph 3.1 (b) below.

Specific Information Delivery Rebate Cap means 20% of the Specific Information Charge

Specific Information Validation Rebate Cap means 20% of the Specific Information Charge.

Tie Cable means a cable connecting the UMP from the MDF to the HDF provided by Batelco.

**ANNEX D: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Draft Order version with track changes)**



UMP means an existing two wire metallic path connection between the HDF and the Network Boundary comprising a UMPL, jumper cable connecting the UMPL and the Tie Cable, and Tie Cable connecting the MDF with the HDF.

UMPL means an existing two wire metallic path connection between a Batelco MDF and the Network Boundary.

3. TERMS

3.1 Nature of Service

(a) The Service comprises the provision by Batelco to the OLO of information detailed under (b) below:

- i. where that information is reasonably available;
- ii. on an Order request basis; and

(b) Subject to 3.1 (a), the Specific Information comprises:

- i. The number of active lines;
- ii. The number of non-active lines;
- iii. The geographical location of the BSNs, a boundary map of BSNs and list of contiguous address blocks and a free helpdesk line to answer questions about contiguous addresses;
- iv. The average length of the UMPLs (in meters);
- v. Power availability at each BSN for the SNFM Service;
- vi. BSN space availability for the SNFM Service;
- vii. UMPL entry points (being the first joint box nearest to the BSN) and Duct capacity availability;
- viii. UMPL characteristics (being diameter, results from any quality tests solely on the UMPL itself, technical interference, control and, where not comprised in the ANFP, spectral management plan information); and
- ix. Results of any xDSL tests performed by Batelco not comprising Batelco's centralised line testing qualification system or CLTQS information.

(c) The parties acknowledge and agree that the Specific Information shall be treated as Confidential Information under these supply terms.

(d) Each party acknowledges and agrees that the helpdesk service under b(iii) above is intended as a supporting service only to the provision of boundary maps and contiguous address lists. The Access Seeker should consult this information first before calling the premium helpdesk.

**ANNEX D: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES
TERMS (Draft Order version with track changes)**

3.2 Ordering

The OLO shall submit a correctly completed Order to Batelco to request supply of the UMP Specific Information Service in accordance with this Service Description and the Supply Terms. The Order shall be submitted in the form specified by Batelco from time to time.

3.3 Validation and Delivery Times

(a) The maximum validation time and delivery lead time for the validation or provision of an Order placed by the OLO and accepted by Batelco shall be as follows:

Specific Information Service component	Validation time between receipt of Order and acceptance or rejection of that Order	Delivery time from Batelco acceptance per BSN
Specific information - all categories	5 Working Days	N/A
Specific information - categories 3.1 (b) (i)-(viii)	See "all categories" above	15 Working Days
Specific information category 3.1 (b) (ix)	See "all categories" above	5 Working Days

(b) The Service Rebates for a failure to meet the maximum validation time and delivery lead time in the preceding paragraph are as follows:

Target	Rebate for each Working Day or part of a Working Day late
Specific Information validation time	5% of the Specific Information Charge subject to the Specific Information Validation Rebate Cap
Specific Information delivery time	5% of the Specific Information Charge subject to the Specific Information Delivery

LLU Reference Offer Order

ANNEX D: LOCAL LOOP UNBUNDLING AND ANCILLARY SERVICES TERMS (Draft Order version with track changes)



	Rebate Cap
--	------------

3.3 OLO Obligations

- a) The OLO acknowledges that clauses 18 (“Intellectual Property”) and 21 (“confidentiality”) in Schedule 9 of Batelco’s Supply Agreement shall apply.
- b) On termination of the UMP Service, the OLO shall return the Specific Information in accordance with clause 21.17 of Schedule 9 of Batelco’s Supply Agreement.

4. CHARGES

The OLO shall pay to Batelco the relevant Charges determined in accordance with this Service Description, or Schedule 3 of Batelco’s Supply Agreement.

Item	Chargeable Activity	Effective Date	Charge (BD)	Charge Basis
	Specific Information Request		336	Per BSN per order

**ANNEX E: CHRONOLOGY FOR THE LOCAL LOOP UNBUNDLING
SERVICE**



Annex E

CHRONOLOGY FOR THE LOCAL LOOP UNBUNDLING SERVICE

ANNEX E: CHRONOLOGY FOR THE LOCAL LOOP UNBUNDLING SERVICE

SECTION 1: CHRONOLOGY FOR THE LOCAL LOOP UNBUNDLING NON-PRICE TERMS

1. The Telecommunications Law provides that where a public telecommunications operator is determined by the Authority to have a dominant position in a particular telecommunications market, it shall within three (3) months of such determination and every six (6) months thereafter publish a Reference Access Offer. Batelco was found to be dominant in certain relevant markets in the Dominance Determination in Wholesale Broadband Markets (Dominance Determination 1 of 2009).
2. On 26 March 2009 the Authority issued a consultation on the appropriate approach for implementation of the Local Loop Unbundling (“LLU”) in the Kingdom of Bahrain, on the study on the Regulation of Wholesale Broadband Markets and the Draft Access Order with respect to the Local Loop Unbundling.
3. After receiving comments from Batelco, Lightspeed, Kalaam and Zain on the consultations. The Authority took into account [consideration] all responses made by the concerned parties and issued the final Access Order Number 1 for 2009 relating to the Local Loop Unbundling, and the Dominance Determination in the Wholesale Broadband Markets on 14 September 2009.
4. Pursuant to Article 1.1 of Annex A (“Implementation”) of Access Order No.1 of 2009¹, Batelco must prepare a meaningful LLU Reference Offer Service Description (“LLU SD”), and submit for the Authority’s review, within 2 months from the Dominance Determination. Batelco is required to prepare the Local Loop Unbundling Reference Offer Service Description by no later than 15 November 2009. The Authority therefore, shall assess Batelco’s submission of the Reference Offer Service Description against the conditions stipulated under Article 57 (e) of the Telecommunications Law on whether the terms and conditions are fair, reasonable and non-discriminatory.
5. On 6 November 2009, Batelco wrote to the Authority outlining the reasons as to why it considers the timeline for submission of the service description and implementation of LLU is null and void, and why Batelco will not be able to submit a meaningful service description on the date proposed in the Access Order. Batelco have failed to make any submissions during that period.
6. On 15 November 2009 (proposed date for submission of LLU Reference Offer Service Description as per the Access Order), the Authority did not receive any submissions relating to the Local Loop Unbundling Reference Offer Service Description from Batelco. However, on 17 November 2009 the Authority granted Batelco an extension to 14 January 2010 to prepare and submit a meaningful and complete service description (letter reference MCD/11/09/095). The Authority has given Batelco an adequate time of 4 months to prepare and submit the service descriptions.
7. Given the time significance of implementation of the Access Order 1 of 2009 and the submission of the LLU SD’s and its importance and effects on the telecommunications market in introducing competition at the retail level, the Authority granted Batelco another extension to 14 January 2010 for Batelco to submit the LLU SD’s to the Authority

¹ Access Order No.1 of 2009: An Order Issued on 14 September 2009 relating to Local Loop Unbundling, Bitstream and Wholesale DSL issued pursuant to the Access Regulation (Ref: MCD/09/09/065)

ANNEX E: CHRONOLOGY FOR THE LOCAL LOOP UNBUNDLING SERVICE

(extension was granted in the letter dated 15 December 2009-Ref: MCD/12/09/099). Batelco has therefore submitted the unbundled metallic path (UMP) service description and the UMP backhaul (UMPB) service on 14 January 2010 (Ref: GCL/20/10). And submitted the specific information provision service description and the service node facilities management (SNFM) service description along with the related license for floor or shelter space on 26 January 2010 (Ref: GCL/47/10).

8. In parallel with Local Loop Unbundling Service Descriptions, the Authority issued a notice of possible breach pursuant to Article 65 of the Telecommunications Law with respect to Batelco's potential abuse of its dominant position in failure to implement the Local Loop Unbundling Field Test on 11 January 2010. The Authority has therefore assessed Batelco's response on the draft Article 65 Order submitted on 31 January 2010 (Ref: GCL/52/10) and agreed in its response to Batelco on to further extend the date of commencement of Field Test to 13 February 2010.
9. On 14 February 2010, Batelco commenced the Field Test with the Operators as confirmed by the letter sent to all OLOs in accordance with the following:
 - i. Letter to Kalaam Telecom;
 - ii. Letter to 2Connect;
 - iii. Letter to Lightspeed; and
 - iv. Letter to Northstar
10. Furthermore, the Authority assessed Batelco's submitted Service Descriptions, and has found the Service Descriptions Incomplete and do not meet the requirements under the Access Order. Therefore, the Authority sent an Article 53 request on 24 February 2010 (Ref: MCD/02/10/024) to Batelco requesting to provide information relating to the LLU SD's. this request consisted of the following matters:
 - i. The Unbundled Metallic Path ("UMP"):
 1. Absence of fault report and fault escalation process (including Service Level Agreements);
 2. Unduly constraining forecasts and minimum contract duration for LLU lines;
 3. Absence of tariffs and costing information for The Authority's review;
 4. Absence of forms that should be used between the parties; and
 5. Lack of definition of many services (especially in the tariffs section).
 - ii. The provision of Specific Information in the service description:
 1. the absence of provision of line quality information;
 2. No details with regards to provisioning procedures and corresponding Service Levels with respect to specific information; and
 3. Absence of tariffs and costing information for the Authority's review.

ANNEX E: CHRONOLOGY FOR THE LOCAL LOOP UNBUNDLING SERVICE



- iii. The Unbundled Metallic Path Backhaul (“UMPB”) service description:
 - 1. No details with regards to provisioning processes for backhaul built by OLO’s to access the Service Nodes;
 - 2. Lack of backhaul bandwidths for backhaul provided by Batelco; and
 - 3. Absence of tariffs and costing information for the Authority’s review.

 - iv. For the SNFM service description:
 - 1. No mention of the HDF;
 - 2. Lack of description of the technical characteristics;
 - 3. Lack of detailed description for the ordering process;
 - 4. No Service Levels for the validation and delivery of the service; and
 - 5. Absence of tariffs and costing information for the Authority’s review.

 - v. the Blocks and Tie Cables:
 - 1. A complete missing Service description.
11. The Authority had a first meeting with Batelco’s team on 11 March 2010 to discuss and better understand certain issues related to the Batelco SD submission.
12. On 17 March 2010, Batelco submitted the first batch of the Descriptions which contained the following:
- (a) Unbundled Metallic Path Service Description
 - (b) SNFM Collocation options
 - (c) Fixed Line Fault Handling Process
13. On 8 April 2010 the Authority sent its analysis on the areas which requires further input and clarification (Ref: 04/10/041), which meet the requirements under the Access Regulation and the Access Order 1 for 2009 relating to the Local Loop Unbundling. This analysis was prepared to assist Batelco in preparation for the meeting confirmed on 15 April 2010.
14. On 15 April 2010, the Authority met with Batelco to cover the outstanding elements and to exchange all necessary documents as previously requested to enable the Authority to assess a complete Local Loop Unbundling Reference Offer Service description. The discussion held was in light of the analysis prepared by the Authority with respect to the areas which require further clarification in order to complete the Local Loop Unbundling Reference Offer Service description in compliance with the provisions of the Access Regulation and the Access Order 1 for 2009. In order to grant an adequate period for Batelco to submit the required information the Authority proposed to Batelco to submit the Service Descriptions in two batches. Batelco has therefore agreed to submit the first batch on 22 April 2010 and the second batch on 29 April 2010.

ANNEX E: CHRONOLOGY FOR THE LOCAL LOOP UNBUNDLING SERVICE

15. On 18 April 2010, the Authority received an email from Batelco (Ref: GCL/153/10) stating that an initial version will be submitted on 22 April 2010 as a first submission then submit the amended version on 29 April 2010. Batelco also outlined matter which shall be ready for submission on 22 April 2010.
16. On 19 April 2010, the Authority wrote to Batelco (Ref: MCD/04/10/047) regarding the action points to be taken in compliance with Article 53 request. The Authority outlined the effects of the delay in complying with Article 53 on Batelco's implementation of Article 1.1 of Annex A ("Implementation Process") of the Access Order. The Authority instructed Batelco to submit the outstanding information in the agreed dates of 22 April 2010 and 29 April 2010. The Authority also requested Batelco to identify and communicate to the Authority no later than 20 April 2010 which of the information will be submitted on 22 April 2010 and identify the information submitted on 29 April 2010. The Authority also stated the purpose of Batelco's completion of the Local Loop Unbundling Reference Offer Service Descriptions which is to ensure that the Service Descriptions are fair, reasonable and non-discriminatory pursuant to Article 5.2 of the Access Regulation.
17. On 20 April 2010, Batelco responded to the Authority's letter by confirming its submission on the agreed dates. However, Batelco stated that completing the 32 deliverables in the attached schedule by 22 April 2010 is problematic for the agreed timescale but subject to unforeseen circumstances.
18. On 22 April 2010, Batelco submitted the first batch of the Local Loop Unbundling Reference Offer Service Descriptions which contained the following:
 - (a) Batelco Metallic Path General Characteristics (BTC/1972/BMPS Issue-1);
 - (b) Access Network Frequency Plan ("ANFP") (BTC/3031/ANFP Issue 1);
 - (c) Annex A, Batelco's Local Loop Unbundling Service Description amended on 22 April 2010.
19. On 26 April 2010, the Authority responded to Batelco's last submission stating the preliminary analysis of the submission of 22 April 2010 as follows:
 - (a) *Item 3: Complement information requested for the metallic pair description (see attachment);*
 - (b) *Item 4: ANFP, can Batelco provide the UK ANFP? And also elaborate why it is more relevant than an ANFP in another country;*
 - (c) *Item 6: Batelco did not fully answer. If Batelco performs a continuity test for active lines will in such case test include the HDF?;*
 - (d) *item 12: cross reference is missing; and*
 - (e) *Item 25: not fully answered (some questions have been answered, others not).*
20. On 29 April 2010, Batelco submitted the second batch of the Local Loop Unbundling Reference Offer Service Descriptions which contained the following:
 - (a) Local Loop Unbundling Site Access Procedure;
 - (b) Nodes Sharing Blocks;

ANNEX E: CHRONOLOGY FOR THE LOCAL LOOP UNBUNDLING SERVICE

- (c) Annex A, Batelco's Local Loop Unbundling Service Description amended on 29 April 2010.
21. On 5 May 2010, the Authority prepared a check list on Batelco's submission of Local Loop Unbundling Reference Offer Service Descriptions and have found that the following matters remain to be clarified by Batelco:
- (a) On the Boundary Lines: Batelco has not yet provided a satisfactory option to solve the issue experienced during the field tests about MDF boundaries;
 - (b) Provision of general copper technical characteristics – condensing primary and secondary general specifications: Batelco has already provided this information in other documents but has not added it in the UMP Service Description;
 - (c) LPQM for both Active and Non-Active lines on non-discriminatory basis–tests using a sample of LLU lines: Batelco is requested to modify its answer to Question 74 and paragraph 3.1.ix in the Specific Information Service Description, where CLTQS is said to be excluded;
 - (d) Update Service Description wording for service qualification definition (clarify what is meant by continuity and infrastructure): for the line continuity test, Batelco is proposing to carry out a test but not from the HDF to the line side of the MDF as requested;
 - (e) Blocks and tie cables – update service descriptions: Batelco only added a specific paragraph in the UMP Service Schedule;
 - (f) Batelco shall provide technical information for dedicated and co-mingling collocation but no information for the shelter collocation Q.37 b) nor distant collocation Q.37 c);
 - (g) SNFM service description – alternative backhaul – wording linking across to duct and LLU riser rental terms: Batelco detailed alternative transmission facilities but didn't specify the cross reference. There is no “*duct and riser licence documents*”;
 - (h) Batelco did not detail backhaul description for high speeds. Batelco is requested to add at a minimum a reference to the relevant offers (CAT and LLCO offers);
 - (i) For the SNFM ordering, Batelco is requested to detail all steps of the procedure that conduct to a delivery time of 65 working days. Batelco is requested to specify all these steps for each type of collocation. The Authority expects, the delivery will be completed within 1 or 2 weeks, as for the field tests;
 - (j) Fault Process, Fault Service Level's and Fault form – specific wording setting out proposed fault process for UMP rather than process diagram or General RO Schedule wording: Batelco is requested to add the response time and threshold response time regarding covered failure plus the time by which the response time exceeds threshold response time with the corresponding Service Rebate. Batelco is also requested to add forms related to the procedures for the reporting of faults set out in Schedule 6, as suggested at the paragraph “fault response and repair”.

ANNEX E: CHRONOLOGY FOR THE LOCAL LOOP UNBUNDLING SERVICE

- (k) KPI's- Confirmation of status of Batelco's retail arrangements for activations (Internal KPI's only): no information delivered by Batelco on this matter;
 - (l) UMP Service- (Paragraph 4.2): adjust wording to make clear the line will still be provisioned even if there is delay because contact cannot be made with the contact number on the phone;
 - (m) Batelco is requested to reformulate its answer: "*for the avoidance of doubt, Batelco shall resume the process on and from satisfaction of one or more of items (a)- (c) above being brought to Batelco's notice in writing by the Access Seeker. Any Service Levels and Service Credits shall be disapplied in respect of the period between the day items (a) –(c) occur and the day one or more of items (a)- (c) above are brought to Batelco's notice in writing by the Access Seeker.*";
 - (n) Batelco did not define the validation time of the Backhaul Order; and
 - (o) Batelco did not specify the delivery and installation lead times for UMPB.
22. On 17 May 2010, the Authority received another submission from Batelco in response to the analysis of the outstanding information in the SD's, a draft riser license for the use with the alternative backhaul, a draft duct license for use with alternative backhaul, the confidential internal process relating to "truck roll", for information purposes only.
23. On 19 May 2010, Batelco has responded to the Authority's queries and submitted Batelco's Metallic Path Specifications.
24. On 19 May 2010 (email from Adel Darwish, subject "*Batelco LLU service descriptions - 19 May 2010*"), the Authority submitted the Analysis on Batelco's LLU RO SD's submissions and outlined questions that yet remain to be answered. Specifically Questions 6 and 17. And comments on the remaining questions raised by TRA in its previous correspondence relating to question 5, 21 and 26. TRA requested Batelco to submit a clean and tracked versions of the final LLU RO SD's.
25. On 23 May 2010 (email from Adel Darwish subject "*RE: Batelco LLU service descriptions - 19 May 2010 GCL/210/10*"), the authority requested Batelco to indicate a final date by which Batelco will submit its final version of the LLU RO SD's. TRA also request information with respect to related activities and costs for infrastructure availability.
26. On 30 May 2010 ("email from James Ibbetson subject "*RE: Batelco LLU service descriptions – 19 May 2010 GCL/210/10*"), Batelco stated that it will submit the clean LLU RO SD's by end of 31 May 2010.
27. On 2 June 2010 (email from Adel Darwish, subject "*RE: Batelco LLU service descriptions - 19 May 2010*"), TRA sent another reminder to submit the LLU RO SD's.
28. On 14 June 2010, the Authority sent a letter to Batelco highlighting the outstanding issues to be completed by Batelco (Ref: MCD/06/10/064).
29. On 20 June 2010 (ref GCL/236/10), the Authority received Batelco's final submission of the clean Service Descriptions relating to LLU and ancillary services (email from James Ibbetson, subject "*RE: Local Loop Unbundling – Pending Issues GCL/236/10*").

ANNEX E: CHRONOLOGY FOR THE LOCAL LOOP UNBUNDLING SERVICE

30. On 24 June 2010, Batelco responded to the authority's letter dated 14 June 2010, outlining that it has already complied with the Authority's previous requests in its submissions of 20 May 2010 and 20 June 2010 (Ref: GCL/247/10).
31. On 4 July 2010, Batelco sent an email to the Authority responding to the questions stipulated in its previous letter of 14 June 2010 (email ref: GCL/263/10).
32. On 20 July 2010, the Authority sent a letter to Batelco highlighting issues related to LLU IT Systems and Processes (Ref: MCD/07/10/067).
33. On 28 July 2010, Batelco responded to the Authority letter of 20 July 2010 relating to the implementation of LLU stating the reasons why Batelco is adopting the manual approach for the implementation of LLU (Ref: GCL/303/10).
34. On 26 August 2010 (email from Adel Darwish, subject ("*RE LLU – IT Systems and Processes*"), the Authority requested a breakdown of costs related to carrying out the Field Tests.
35. On 31 August 2010 (email from Chris Evans, subject "RE: LLU IT Systems and Processes", Batelco indicated that shall get back to the Authority with further details on the breakdown of Field Test costs.

The Authority's Analysis of Ordered Local Loop Unbundling Reference Offer Service Description

36. During the review period of Batelco's Local Loop Unbundling Reference Offer Service descriptions. The Authority has determined that some of the terms under the Service Description are not Fair, Reasonable and Non-discriminatory. Therefore, and pursuant to Article 5.3 of the Access Regulation, the Authority has determined to issue this Order.
37. After consultation and discussion with Batelco and the OLO's, the Authority has determined to issue an Order to Batelco regarding the Local Loop Unbundling Reference Offer Service Descriptions pursuant to Article 5.1 of the Access Regulation.

Issuance of Draft Order, Batelco's response and further queries with regards to Local Loop Unbundling Reference Offer Service Description

38. On 1 November 2010, the Authority issued a Draft Order to Batelco (reference MCD/10/10/097).
39. The Authority received a response from Batelco on 14 December 2010 (Batelco reference GCL/460/10). The response consisted of a main document and 4 annexes.
40. On 29 November 2010, the Authority received an email from Nadia AlAwadhi sent to Adel Darwish (subject: RE: LLU Draft Order - information request), asking some benchmarking data from the Authority.
41. On 01 December 2010, the Authority responded to the above query by sending a list of the reference offers from which the benchmarked data was extracted from (email from Adel Darwish to Nadia AlAwadhi – subject *same as above*).

**ANNEX E: CHRONOLOGY FOR THE LOCAL LOOP UNBUNDLING
SERVICE**



42. Furthermore, On 06 December, the Authority sent to Batelco the documents from the benchmarked reference offer in order to assist Batelco In its review of the LLU draft order.
43. During the review of Batelco's response to the LLU Draft Order issued by the Authority on 1 November 2010, the Authority required further clarification from Batelco on some points in the response which were not clear. Hence the Authority sent a letter to Batelco on 27 February 2011 (reference MCD02/11/018).
44. On 2 March 2011, the Authority received Batelco's response to the above letter (Batelco reference GCL/95/11).
45. On 5 May 2011, the Authority issued this Order.

ANNEX E: CHRONOLOGY FOR THE LOCAL LOOP UNBUNDLING SERVICE



Section 2: Chronology for the Local Loop Unbundling Price Terms

46. On 24 December 2009, the Authority sent a letter to Batelco under Article 53 (ref MCD/12/09/106) requesting information related to LLU costs. The deadline of submitting the requested information was 24 January 2010.
47. On 18 January 2010, Batelco informed the Authority by email sent from James Ibbetson that they would have difficulty assembling the information in the timescales the Authority has requested.
48. On 21 January 2010, Batelco sent email to the Authority which includes an illustrative pie charts for access copper elements by using 2007 FAC regulatory accounts "20100121 illustrative pie chart for access copper element.xlsx" followed by a call conference with Batelco to explain these charts.
49. On 24 January 2010, Batelco sent their responses to Article 53 request (MCD/12/09/106), one word document without "20100124 LLU costing response.docx" question 10 answer regarding the number for lines in 2007 and 2008 and without the excel file.
50. On 25 January 2010, Batelco sent the source file "pie charts breakdown of Access copper 2007.xlsx" for the word document.
51. On 27 January 2010, the Authority sent a power point file to Batelco "2010 01 27 Analysis of responses to the request for informationv2.ppt" which includes a modified list of questions to align with Batelco's process. The due date was 7 February 2010.
52. On 3 February 2010, a call conference had been held (the Authority and Batelco) to clarify some questions mentioned in the power point file sent to Batelco after receiving emails from Batelco in which they mentioned that they have difficulty to provide answers for some questions. As a result of this call conference Batelco agreed to provide the requested information in 3 phases (4, 8 and 14 February).
53. On 4 February 2010, Batelco sent the first part of the requested information in an excel file "20100204 AN01 costs - reply to TRA Q1Q5Q6.xlsx" detailing the unattributable activities costs and the corresponding common cost centre costs, specifying the direct GBV corresponding to the direct assets and directs asset lives specify and describing FR06 Order Mgt, Delivery & Assurance – Order Management Activity.
54. On 8 February 2010, Batelco sent the updated pie charts breakdown of access copper based on 2008 unaudited regulatory accounts "20100208 LLU AN 01 costs reply to TRA updated 2008 pie charts.xlsx".
55. On 14 February 2010, Batelco sent the final part of AN01 Access Copper submission "20100214 AN01 costs - reply to TRA Q2-Q4.xlsx" which includes the following three sheets :
 - a) the breakdown of the access copper elements and detail for each network activities (NA02, NA03, NA04, NA05 and NA06) the corresponding amount of direct costs, support activity costs (for each support activity) and support plant costs (for each support plant).
 - b) a split of each network plant cost between network activities and depreciation.

ANNEX E: CHRONOLOGY FOR THE LOCAL LOOP UNBUNDLING SERVICE

- c) the breakdown of the access copper elements and detail for each network activities the corresponding amount of direct costs, supports activity costs (for each support activity) and support plant costs (for each support plant).
56. On 8 March 2010, after analysing the submitted information from Batelco on 4, 8 and 14 February 2010, the Authority sent a letter to Batelco (MCD/03/10/028) Local Loop Unbundling - Request for further Information related to Local Loop Unbundling costs under Article 53 of the Telecommunication Law.pdf with a power point file "2008-56-MR-TRA(Bahrain)-Third round (Batelco).ppt" requesting Batelco to provide clarification in the information provided on 4, 8 and 14 February 2010. The deadline for submitting the requested information was on 17 March 2010.
57. On 17 March 2010, the Authority sent an email to Batelco requesting costing details (from Dr Alexandre Serot to James Ibbetson - Subject "*RE: LLU Service Description - Sec 53 request*").
58. On 17 March 2010, Batelco sent their clarification in a word document "20100317 Batelco response to TRA article 53 request for further info on LLU costs.docx". In their email Batelco proposed the following:
- d) UMP rental charge – Batelco has already submitted comprehensive costing information relating to the AN 01 copper loop charge for 2007 and 2008 costs as well as information concerning the number of lines
 - e) Project up front and additional running costs – given the service scope, IT development and field test has not been finalised, we have proposed a cost estimate based on the CPS project in 2005 as previously submitted to the Authority for further discussion
 - f) LLU Backhaul – to be submitted on 1 April 2010 as with the CAT and LLCO
 - g) UMP other charges, SNFM charges, specific information charges – supporting files to be submitted on or before 1 April 2010 as with other reference offer price terms (subject to completion of the process work and valid outputs from the field test)

And the Authority replied to this email on 18 March 2010 in which the Authority mentioned that it is prepared to give Batelco up to 1 April 2010 to submit all the required information, including a proper justification and supporting information for the LLU set-up cost, the UMP other charges, SNFM charges, and specific information charges.

59. On 18 March 2010, after analysing the information provided by Batelco on 17 March 2010, the Authority sent another letter to Batelco under Article 53 requesting Batelco to resubmit LLU related costing information based on 2008 audited regulatory accounts and justify why Batelco certain costs relevant to the LLU (MCD/03/10/030).
60. On 1 April 2010, Batelco sent email to the Authority "20100401 UMP_SNFM Service Description Charges.xlsx" and "CPSCostingV1.3.080805.xls".
61. On 8 April 2010, Batelco requested one week extension to submit the requested information on 18 March 2010 and the Authority accepted Batelco's request.

ANNEX E: CHRONOLOGY FOR THE LOCAL LOOP UNBUNDLING SERVICE

62. On 14 April 2010, Batelco sent the following document as their response for Article 53 request for information related to LLU issued on 8 March 2010:
- 20100414 Article 53 response - LLU costs.pdf;
 - 20100414 LLU XA information.xlsx;
 - 20100414 Update Q1-Q2-Q3-Q4 with audited 2008.xlsx; and
 - 20100414 Update pie charts breakdown of AN01 audited 2008.xlsx.
63. On 19 April 2010, the Authority sent two letters to Batelco the first one related to LLU costing information (MCD04/10/048) in which Batelco was requested to provide information that will help the Authority to assess whether certain charges are fair and reasonable and the second letter (MCD04/10/047) Local Loop Unbundling Project- Batelco action.
64. On 20 April March 2010, the Authority sent an email to Batelco requesting costing details (from Dr Alexandre Serot to James Ibbetson - Subject "*LLU specific set-up cost*").
65. On 26 April 2010, Batelco submitted an excel file "Q1-Q2-Q3-Q4 with audited 2008-breakdown of NP07-NP09.xlsx" including the cost portion of NA06 that is related only to NA01 (after a call conference between the Authority and Batelco with the purpose to providing cost information that is related only to AN01 access copper).
66. On 11 May 2010, Batelco responded to the Authority's letter dated 19 April 2010 by sending two files (20100511 HDF Block and Tie Cable Quotation.tiff and 20100511 LLU costing information response.doc).
67. On 19 May 2010 (email from Adel Darwish, subject "*Batelco LLU service descriptions - 19 May 2010*"), the Authority submitted the Analysis on Batelco's LLU RO SD's submissions and outlined questions that yet remain to be answered. Specifically Questions 6 and 17. And comments on the remaining questions raised by TRA in its previous correspondence relating to question 5, 21 and 26. TRA requested Batelco to submit a clean and tracked versions of the final LLU RO SD's.
68. On 20 May 2010 (email from James Ibbetson, subject "*RE Batelco LLU service descriptions – 19 May 2010*"), Batelco has submitted the following:
- its response to TRA's last e-mail on questions 6, 17, 5, 21 and 26 of TRA's analysis and questions and informed TRA that it will submit its final clean version of the LLU RO SD's;
 - a clarification response to question 26 of the Authority's analysis and questions regarding the "Truck Roll" process, (Ref: GCL/203/10); and
 - response to the Authority's question number 6 regarding the service qualification activities

**ANNEX F: LIST OF KPIs TO BE PUBLISHED BY BATELCO ON A
QUARTERLY CALENDAR BASIS**



Annex F

**LIST OF KPIs TO BE PUBLISHED BY BATELCO ON A QUARTERLY
CALENDAR BASIS**

ANNEX F: LIST OF KPIs TO BE PUBLISHED BY BATELCO ON A QUARTERLY CALENDAR BASIS

With reference to paragraph 8 (c) of this Order, Batelco is required to publish the following KPIs on a calendar quarter basis. The report should be published on Batelco's website no later than 5 working days from the end of the relevant calendar quarter. Batelco shall submit, at the same time, the underlying raw data used in the calculations of KPIs to the Authority.

Section 1: List of KPIs for Batelco to submit every calendar quarter from the date of the first UMP request:

1. For all **UMPL** the following KPIs (on a monthly basis) should be tracked:
 - a. the average UMPL validation time;
 - b. the average UMPL validation time of the 20% longest UMPL validation time;
 - c. the average UMPL provisioning time for active lines;
 - d. the average UMPL provisioning time of the 20% longest UMPL provisioning time for active lines;
 - e. the average UMPL provisioning time for non-active lines;
 - f. the average UMPL provisioning time of the 20% longest UMPL provisioning time for non-active lines;
 - g. the average UMPL provisioning time for all lines;
 - h. the average UMPL provisioning time of the 20% longest UMPL provisioning time for all lines; and
 - i. the total number of new UMPLs.

2. For all **Tie Cable** the following KPIs (on a monthly basis) should be tracked:
 - a. the average Tie Cable validation time for all lines;
 - b. the average Tie Cable validation time for the 20% longest Tie Cable validation times;
 - c. the average Tie Cable provisioning time for all lines;
 - d. the average Tie Cable provisioning time of the 20% longest Tie Cable provisioning time for all lines; and
 - e. the total number of new Tie Cables.

3. For all **Fault** the following KPIs (on a monthly) should be tracked:
 - a. the average restoration time;
 - b. the average restoration time of the 20% longest restoration times; and
 - c. the total number of faults.

**ANNEX F: LIST OF KPIs TO BE PUBLISHED BY BATELCO ON A
QUARTERLY CALENDAR BASIS**



Section 2: List of KPIs for Batelco to submit every calendar quarter from the date of the first UMP request and for a period of 6 months only. The Authority does not consider the following KPIs require to be published on Batelco's website:

4. For all **new Service Node requests** the following KPIs (on a monthly based) should be tracked:
 - a. Service Node Unbundling Request submission Date/Time;
 - b. Service Node Unbundling Request Validation Completion Date/Time;
 - c. Service Node Unbundling Cost requirements completion and submission to OLO Date/Time;
 - d. Service Node Unbundling confirmation received from OLO Date/Time;
 - e. Service Node Unbundling commencement of make ready work Date/Time; and
 - f. Service Node Unbundling completion of make ready work Date/Time.