Consultation Report on the draft Guidelines for In-Building Telecommunications Access Facilities

Summary and analysis of stakeholders' submissions and the Authority's final conclusions

26 March 2020

Ref: TUI/0320/058

Purpose: to summarize and analyse the submissions received by stakeholders during the consultation on the draft Guidelines for In-Building Telecommunications Access Facilities.

1 Introduction

1. This report presents the conclusion of the Telecommunications Regulatory Authority of the Kingdom of Bahrain (hereinafter referred as "TRA" or "Authority") with respect to the draft Guidelines for In-Building Telecommunications Access Facilities (the "Paper"). Following the consultation process and consideration of all contributions received within the set timeframe, TRA has come to a final position with regard to each of the relevant questions addressed.
2. On 28 November 2019, TRA circulated a consultation document (Ref: TUI/1119/169) in which the Authority outlined the preliminary standards with regard to Guidelines for In-Building Telecommunications Access Facilities, with the purpose of collecting views from interested parties on these issues. Interested parties were invited to submit written substantiated comments to TRA by 26 December 2019.
3. The consultation process was launched pursuant to Article 3(f) of the Telecommunications Law.
4. The TRA received written non-confidential submissions from two (2) parties (the "Submissions") as summarised in the table below:

Responded Party	Date of submission
Bahrain Telecommunications Company B.S.C., Manama, Kingdom of Bahrain	26.12.2019
Saudi Telecom Company Manama, Kingdom of Bahrain	26.12.2019

5. All the received comments have been considered, summarised and addressed within this report.
6. The Authority would like to thank all the respondents for their Submissions. These inputs have been particularly useful for the Authority to finalise its position.
7. Based on the Submissions and after undertaking further analysis, the Authority has adopted a final position with regards to each substantiated comment. These final positions are presented in this report.
8. In order to elaborate on the abovementioned positions, the table entitled "Submissions and the Authority's final Conclusions" in section 2 of this consultation report includes the following:
   a. Summary of the comments received in the Submissions; and
   b. The Authority's view and conclusion in respect of each of the abovementioned comments.

2 Submissions and the Authority's final conclusions with their regard

Summary of comment received	The Authority's view and conclusion
Question 1: Do you agree with the industry standard documents referred to in the document that were used to base the guidelines on?	
Bahrain Telecommunications Company	
Batelco agrees with the industry standard documents	Noted
STC -Bahrain	
STC agrees with the standard documents referred to in the Draft Guidelines for In-Building Telecommunications Access Facilities	Noted
Question 2: Do you agree with the proposed property developers' roles?	
Bahrain Telecommunications Company	
In general, Batelco agrees with the proposed property developers' roles. Nonetheless, Batelco believes that the implementation of distributed antenna systems especially for medium to large buildings would require a level of involvement between developers and licensed operators. As such, Batelco is of the view that developers would have to consult licensed operators in relation to proposed designs, number of allocated rooms, power requirements, cable design etc. In this regard, Batelco suggests that the Authority would arrange for informative workshops between licensed operators and key developers in the Kingdom (e.g. Bahrain Bay, Diyar etc.), to ensure all stakeholders are well aligned.	The Authority's current intention is that it would organise a kick-off workshop between Licensed Operators and developers once the Guidelines have been published. However, for the design and implementation of Distributed Antenna Systems ("DAS"), the Guidelines do not touch upon DAS, and the Authority will tackle standards for DAS as part of a separate initiative.
STC – Bahrain	

1. Whilst stc agrees with the Authority's recommendations that the property developer is the entity responsible for the construction and maintenance of In-building Telecommunications Facilities (the "Facilities") as stated in Para 1.8.1 (a) of the Consultation. stc considers that property developers' responsibility should be expanded further by including the requirement to design, construction and maintenance of the end-to-end Distributed Antenna System (the "DAS") including fiber optics cables, coaxial cables, feeders, antenna, splitters etc. to enable mobile operators provide required indoors wireless coverage.	As mentioned above, the Guidelines cover generic In-Building Telecommunication Access Facilities from an internal wiring point of view and do not include standards for coaxial cables, feeds and antennae used in DAS. These apparatuses will be tackled as part of a separate initiative.
Also, stc requests the TRA to ensure that in-building telecommunications infrastructure to be built by property developers is suitable to cater for the ultimate end users' requirements related to FTTx networks in new buildings for the benefit of all stakeholders. This shall not only promote the competition on the infrastructure level but also give the user the freedom of choice between operators and promote the deployment of fibre networks as key infrastructure in the ICT sector.	The Authority believes that the standards covered in the Guidelines will suffice and ensures that telecom access facilities installed in reference to those standards will achieve the quality of service standards for ultimate end users
2. stc considers that the approach of defining the responsibility on property developers in the form of Guidelines is insufficient and will not lead to fulfil the TRA ultimate objectives. As such, stc believes that the responsibility on property developers should be further strengthened. The TRA should take necessary actions to enforce defined responsibility on property developers through relevant Municipalities legislations. In specific, property developers should be obliged to include in their building permit applications to Municipalities, the submission of the design of In-Building Telecommunications Access Facilities including DAS in order to obtain required building permits. stc strongly believes that such obligation is of high importance due to the following reasons i Operators are incurring high cost to design and construct In-Building Telecommunications Access Facilities which are in the end going to be owned by buildings' owners; ii Operators are incurring unnecessary operational cost to build and operate In-Building Telecommunications Access Facilities due to the high rental fees imposed by landlords; iii Operators are experiencing commercial and technical difficulties to establish on time required In-Building Telecommunications Access Facilities after the completion of buildings' construction; and	The Authority would like to clarify that the power and remit of the TRA does not extend beyond Licensed Operators and property developers do not fall under its jurisdiction. Nonetheless, the Authority as part of this initiative, will liaise with the relevant and appropriate government entities (including municipalities) to introduce these Guidelines as part of the approval process for real estate development projects

iv The delays caused by not having pre-planned In-Building Telecommunications Access Facilities have a significant impact on all parties including end users due to the lack of indoor mobile coverage in a number of projects recently established in Bahrain. In consideration of the above, stc requests the TRA liaising with other Government Entities with the aim to oblige on contractors and developers building required In-Building Telecommunications Access Facilities including DAS and also do consult the licensed operators to approve their engineering drawings during the design phase. For the avoidance of doubts, property developers shall ensure hiring specialized contractors/vendors to design, construct, supervise and maintain the In-building Telecommunications Access Facilities	
Question 3: Do you have any comments on or objections to the guidelines presented in this document	
Bahrain Telecommunications Company	
Batelco welcomes the guidelines set out in the Consultation by the Authority, and would suggest that frequent interactive workshops are conducted between all concerned stakeholders to facilitate and fast track all matters related to In-Building-Solutions. In addition, Batelco provides the below specific comments: • Reference to "Part Two Generic Building Conditions" under point 2.7.3 B: Our requirement is to have at least 3 * 16 AMP Dual Ac sockets per operator. • Reference to "Part Two Generic Building Conditions" under point 2.7.3 C: Our requirement is that each operator shall get at least 3 * 3 m clear wall space in the main room.	A kick-off workshop will be scheduled once the Guidelines have been published and shared with all concerned stakeholders These standards have been reflected in the document The Authority deems this request unrealistic and disproportionate, as allocating 3x3m clear wall space for each operator will highly impact the design and space allocation in constructed buildings

• Reference to "Part Two Generic Building Conditions" under point 2.7.3 G: Our requirement is to maintain the temperature at 20 degrees Celsius.	These standards have been reflected in the document
• Reference to "Part Two Generic Building Conditions" under point 2.7.4 A: Our requirement is to have at least 3 * 16 AMP Dual Ac sockets per operator.	These standards have been reflected in the document
• Reference to "Part Two Generic Building Conditions" under point 2.7.4 H: Our requirement for Distribution Antennas System (DAS) is to have cable trays of at least 40 cm for main areas where for the branches we require at least 10 cm cable tray.	As mentioned above the Guidelines cover generic In-Building Telecommunication Access Facilities from an internal wiring point of view and does not include standards for coaxial cables, feeders and antennae used in a DAS. These standards will be tackled in a separate initiative.
• Batelco suggests that all relevant authorities who are involved in the building permit process be involved as well when it comes to enforcement of these guidelines.	The Authority as part of this initiative will liaise via collaboration and coordination with the relevant and appropriate government entities including municipalities to introduce these guidelines as part of the approval process for real estate development projects
• Since the erection of buildings usually disrupts the mobile coverage in the respective area, Batelco believes that it is crucial that the building design and its effect on the mobile coverage is taken into consideration. This will also help to facilitate the installation of wall mount antennas on the outer side of new buildings in order to maintain or improve mobile service. • Batelco is of the view that the structure and design of new buildings should accommodate telecom masts and telecom equipment load by different means such as: provisioning of wall mount antennas on the building's side walls or stub mast and poles on the building's rooftops.	It is unclear to the Authority how Batelco's proposal could be implemented in practice noting that the Authority's jurisdiction is limited to licensed operators and that in all cases, imposing the proposed obligations on building developers is not proportionate.

• Batelco believes that any rules and guidelines for space, power and access for new buildings shall be made in a way which facilitates the availability of telecommunication as a utility, in the most efficient manner.	Noted and reflected in the Guidelines
• Batelco understands that TIA/EIA 568-B: Commercial Building Telecommunications Cabling Standard; is not the latest standard. Batelco notes that the latest is ANSI/TIA-568.1-D "Commercial Building Telecommunications Cabling which include backbone multimode optical fiber cabling	Noted, the Standard has been updated and reflected in the Guidelines
• Batelco would suggest that these guidelines would also cover in more detail a) the Distributed Antenna System (DAS); b) commercial aspects for indoor building solutions, similar to those used by other utilities (e.g. Water and Electricity)	As mentioned above the Guidelines cover generic In-Building Telecommunication Access Facilities from an internal wiring point of view and does not include standards for coaxial cables, feeders and antennae used in a DAS. These standards will be tackled in a separate initiative.
STC – Bahrain	
stc recommends the following in reference to Paragraph(s) 1.8.3 and 2.7.3 of the Consultation relating to the "The Authority's Roles" and "Main Telecommunications Rooms".	
The Authority's Roles: In order to optimize the overall process defined the Draft Guidelines, among all parties, stc recommends that the TRA should be the point of contact between the operators and all other stakeholders like developers, building or property owners, municipalities or ministries and accordingly shall take responsibility of coordination. Having said that, operators will be in a position to provide guidance to developers to make sure that the deployment of In-Building Telecommunications Access Facilities including DAS to enable operators provide required telecommunications services according to the latest developments in the ICT industry as well as the expected future developments.	The Authority does not agree that it should act as the point of contact between the operators and the various stakeholders, neither does it accept that it should take responsibility for the co-ordination. The Authority does not believe that such a role would fall within the remit granted to it under the Telecommunications Law.

Telecommunications Rooms: stc requests the TRA to ensure mandating of property developers that "Main Telecommunications Rooms are: - not placed in Basements to avoid flooding issues, and - should not be adjacent to electrical power rooms. In this regard, the Hong Kong Authority's Code of Practice5 states that telecommunications rooms should be built above ground level and not adjacent to the electrical transformer room. *"the TBE Room should be located above ground level to avoid the risk of flooding and not neighbouring to the transformer room or the generator room."*	Noted and reflected in the Guidelines in Section 2.7.3 part I)
Additional Comments by Respondents	
Bahrain Telecommunications Company	
Intra-building telecommunications The matters discussed in this consultation are primarily of a technical nature, the overall aim being to "provide property developers, Licensed Operators and other interested stakeholders with recommendations on the provisioning of spaces, facilities and cabling in residential and commercial buildings for the purpose of providing telecommunications services for consumers inhabiting these buildings." However, Batelco considers it appropriate to inform the Authority, at this time, of an additional matter that is of great concern to Batelco though it relates to telecommunications between different buildings as opposed to in-building telecommunications, which is the scope of the current consultation. Batelco is concerned that for the purposes of *intra-building* communications its competitors appear to be permitted to use unlicensed (and therefore less expensive) microwave links whereas Batelco is	The Authority is in receipt of an official complaint from Batelco on this subject-matter and the Authority will pursue its investigation as part of that process.

required to use licensed microwave links and for the purposes of backup only, which is more expensive. Batelco is thus concerned that it is not being given equivalent treatment as its competitors, in equivalent circumstances, and that this places Batelco at a serious and unjustified competitive disadvantage. Batelco is preparing a separate and more detailed submission regarding this issue which will be furnished to the Authority in early course, however it seems appropriate to make the Authority aware of same, given the context of the current consultation. In the meantime, Batelco would strongly urge the Authority to exercise its full power to investigate and take all measures necessary to prevent the unlicensed use of any microwave link by any operator.	