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Guidelines for the Registration of Base Station (by PLMN operators)

Guidelines made under Section 17(3) of Information and Communication Technologies Act 2001 (as amended) and the EMF Safety Standard 2021

Revisions

Revision No.	Date	Nature of Revision			
V1	May 2020	Creation of document			
V2	May 2021	Issue of document			
V3	November 2021	Changes brought: a) Addition of new technologies such as LTE800 and 5G b) Inclusion of a 'De-registration' option c) Fine tuning of the Modification feature with respect to type of installation			
V4	Jan 2023	Changes brought: a) Addition of DAS features with all associated changes made to the relevant dashboards b) Update of the relevant sections following upgrade of the Online platform using One-time Password (OTP)			

Preamble

Under Section 17(3) of Information and Communication Technologies Act 2001 (as amended) the Information and Communication Technologies Authority shall have the power to make such determinations, issue such directives, standards and guidelines, and do such acts and things, as are incidental or conducive to the attainment of its objects and the discharge of its functions.

Accordingly, and in line with the Revised EMF Standard, the ICT Authority hereby issues the relevant set of guidelines (hereafter referred to as 'Registration of Base Station Guidelines'), which shall govern the registration for the setting-up of new base stations and the modification of registered base stations in the Republic of Mauritius.

The 'Registration of Base Station Guidelines' also set out the procedure to be followed by licensed Public Land Mobile Network (PLMN) operators to apply to the ICT Authority for registration in order to set-up, modify and operate base stations.

1.0 Introduction

The ICT Authority is hereby issuing the present set of guidelines for the purpose of submitting registration for the setting-up of new base station and the modification of existing base stations in the Republic of Mauritius. The present set of guidelines shall be binding on all licensed PLMN operators

These Guidelines set out the procedures to be followed for registration of new base station and modification of the registered base station with the ICT Authority;

The Authority shall periodically review the present Guidelines.

2.0 Definition of Terms

- a) "Access Provider" has the same meaning as in the terms and conditions of PLMN licence issued by the Authority to operators;
- b) "Act" means the Information and Communication Technologies Act 2001 as amended;
- c) "Authority" means the Information and Communication Technologies Authority established under section 4 of the Act;
- d) "Base Station" means a radiocommunications transmitter and its associated infrastructure including any antennas, housings and other equipment;
- e) "Distributed Antenna System", or "DAS" means a network of spatially separated antenna nodes connected to a common source via transport medium that provides wireless service within a geographic area or structure. A DAS can be deployed either indoors or outdoors.
- f) "Exclusion zones" are described by the compliance boundaries around an antenna in which the electromagnetic fields exceed the safety limits. General public cannot access those areas;
- g) "Host operator" refers to a licensee who has given access to its infrastructure to another licensee, the tenant operator, for the purpose of installing and operating a base station;
- h) "ICTA" means Information and Communication Technologies Authority;
- i) "ITU" means the International Telecommunication Union;
- j) Installation in relation to radiocommunications infrastructure, includes:
 - i. the construction of the infrastructure, on, over or under any land;

- ii. the attachment of the infrastructure to any building or other structure; and
- iii. any activity that is ancillary or incidental to the installation of the infrastructure (for this purpose, installation includes an activity covered by paragraphs (i) or (ii) above).
- k) "Licence" means PLMN licence issued by the Authority and includes the terms and conditions and any Annex thereto;
- l) "PLMN" (Public Land Mobile Network) has the same meaning as in the PLMN licence document.;
- m) "Standard" refers to Deployment of Radiocommunication Infrastructure Technical and Administrative Standard for Electromagnetic Field (EMF) Safety (EMF Safety Standard);
- n) "Tenant operator" means a licensee to whom access has been granted to the installation of the host operator for the purpose of installing and operating a base station.

3.0 Technical Standards

- 3.1 Under section 18 (1) (n) of the ICT Act 2001 (as amended), the ICT Authority must "ensure the safety and quality of every information and communication services including telecommunication services, and for that purpose, determine technical standards for telecommunication network, the connection of customer equipment to telecommunication networks";
- 3.2 Pursuant to section 18 (1) (n) of the ICT Act 2001 (as amended) and the EMF Safety Standard, the ICT Authority has determined technical standards for the setting up of new base station and the modification of registered base station. The EMF Safety Standard may be consulted <u>here</u>. All operation of base stations in the Republic of Mauritius shall comply with these standards, as applicable.

4.0 The procedures to be followed to make an application to the ICT Authority for registration of base station

Operators are required to register on the <u>ICTA Online Portal</u>. and follow the applicable instructions.

 For the purpose of registration on the ICTA Online Portal, operators should create a common credential which shall be accessible by all authorized users of the operator.

- o The users shall use the common credential to receive the one-time password (OTP) which shall be input in the verification page to access the Online Portal.
- The registration of new base stations and existing Distributed Antenna Systems, and modifications of existing base stations shall be made on the ICTA Online Portal.
- o All registrations made on ICTA Online Portal should be done by the host operator.
- Each site shall be registered individually on the ICTA Online Portal, under a unique site name.
- o All fields on the ICTA Online Portal are mandatory, except where otherwise indicated.
- o The Authority reserves the right to take such actions as it may deem appropriate, as specified in the Revised EMF Safety Standard document, where it has come to the notice of the Authority that the operator has submitted false, incomplete and inaccurate information and request the operator to take such corrective measures as appropriate.

4.1 Dashboard

After successfully registering on ICTA Online Portal, the user will have access to a dashboard as hereunder illustrated:



Figure 1. Operator dashboard

On the dashboard, the user will have access to the following options:

- **Registration of Base Station** tab directs the user to register new base stations.
- Registration of Distributed Antenna System tab directs the user to register Distributed Antenna System (DAS).

- **Partially saved Applications** tab allows the user to continue with the applications which are in progress or delete such applications.
- **Previously Submitted Application** tab provides the user with a list of all base station installations and DAS that have been registered on the portal. The user may **view**, **update** and **modify** the details of a registered base station, and may also **de-register** a base station.
- **Registered co-located Base Stations** tab provides the user (tenant operator) a view of the sites, as registered by the host operator, which are classified as co-located base stations.

4.2 Registration of Base Station

For <u>each</u> application made to register a base station, a unique station ID will be assigned to the base station. This unique stationID will be used as the main reference throughout the ICTA Online Portal.

For a base station with tenant(s), it is the responsibility of the **host operator** to acquire all relevant information from the tenant(s) prior to registration of a base station on the ICTA Online Portal.

There are six main sections throughout the application form, as explained hereunder:-

Section 1 OPERATOR DETAILS

The user has to submit relevant details including Contact Person and Authorized Responsible Officer as illustrated in Figure 2 below. The Contact Person will be the technical Point of Contact between the User and the Authority.

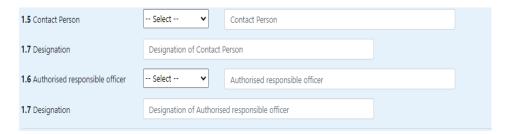
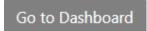


Figure 2. Operator details

The Authorized Responsible Officer is the person who has been mandated by the operator to authorize the registration and submission of applications on the Online Portal.



'Go to Dashboard' button will re-direct the user to his/her dashboard. Any unsaved information will be lost.

Save and Proceed

Upon pressing 'Save and Proceed' button, the application will automatically be saved on the portal and the user may view his partially filled application on his/her dashboard under 'Partially saved Applications' tab.

Section 2 STATION DETAILS

Section 2 pertains to the physical details of the base station namely the site name as defined by the operator, location address, and geographical coordinates.

Under Section 2.7 the user has to select the type of installation of the base station which may be any of the following: -

- o Ground Based Tower
- o Rooftop Tower
- o Palm Tree
- Rooftop pole
- Self-Supporting Mast

Under section 2.9, the user has to confirm the type of consultation that was effected during the process of setting up the base station. More information on the type of consultation is available in the EMF Safety Standard document.

Under section 2.10, the user has to provide tentative start date of the operation for the new base station.

Under section 2.11, the user (**host**) has to specify whether the site is co-located with other operators (**tenants**).

Section 3 TENANT DETAILS

As illustrated in Figure 3 below, the user (host operator) shall select the tenant that will be co-located on its site in case the user has indicated that the installation is a co-located one in section 2.11. The user shall ensure that it has selected <u>all</u> other operators which will share the same site¹ before proceeding to the following section.



Figure 3. Tenant Details

¹ Please refer to the EMF Revised Standard for definition of Shared site

Section 4 SECTOR DETAILS

Section 4 requires the user to provide information relevant to the environment in which the **respective** antenna (**host and tenant**) will radiate in a pre-defined sector.

Under section 4.3 for all types of installation, the user will have to confirm whether it has at least two antennae whose radiation patterns are overlapping, as determined by their half-power beam width in the horizontal plane, irrespective of the technology available on both antennae. This is illustrated in Figure 4 below. The overlapping radiation pattern may be from the **same** operator or **two different** operators.

Note: For a multiple-antenna installation, whether operated by a single operator or more than one operator on the same **physical structure at a given** location point, the sources may have overlapping radiation patterns, as determined by their half-power beam width in the horizontal plane.

4.3 Specify whether this sector has any other overlapping radiation source:

O Yes

No

Figure 4. Confirmation of overlapping radiation pattern

An example of the above is demonstrated in Figure 5 below.

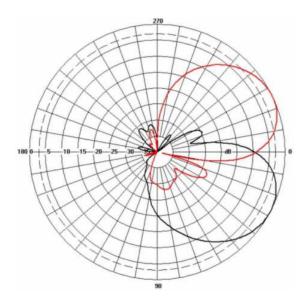


Figure 5. Illustration of overlapping radiation pattern

Under section 4.4 in case there is an overlapping radiation pattern, as explained above, the user will have to provide the name of the operator for which overlapping radiation pattern exists, which can be the same operator of that sector Additionally, under section 4.5 the user will have to specify the azimuth of the overlapping source as illustrated in Figure 6 below.

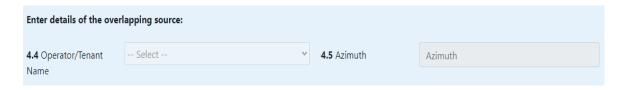


Figure 6. Details of overlapping source

Under section 4.6 the user has to provide the sector number of each antenna whose radiation patterns are overlapping, using a specific nomenclature.

The Sector No. should be a value less than 9 in case of non-overlapping sectors and value should be greater than 9 in case of overlapping sectors.

For example, if two antennae have overlapping radiation pattern and one sector is defined as '0' and the second one as '1', the sector number of the overlapped sector should then be defined as '10'. Likewise, if two antennae have overlapping radiation pattern and if both have the same sector number such as '1', then the sector number should be defined as '11' or if one sector is defined as '2' and the second one as '3', the sector number is then defined as '23'.

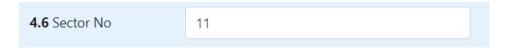


Figure 7. Definition of overlapping sectors

Under section 4.7 **for all types of installation**, the user has to confirm the total height (m) of the installation from ground to centre of radiation. An illustration of the required information is shown in Figure 8 below.

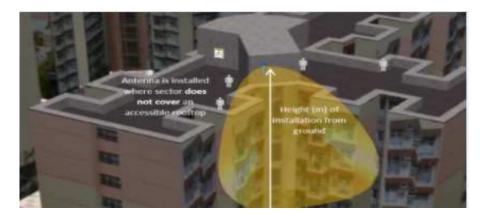


Figure 8. Installation of antenna from ground to centre of radiation

Note: Should the technology LTE800(B20) be envisaged for use, the minimum height of the installation from ground to centre of radiation should be at least 15m.

Case: Rooftop Tower & Rooftop Pole

In the case of rooftop mounted structures, the user shall select under section 4.8, the scenario which is applicable to the particular sector, as illustrated in Figure 8 above and Figure 9 below respectively. Figure 8 illustrates the scenario where Antenna propagation does **not** cover an accessible rooftop.

For the second scenario (illustrated in Figure 8), the height $h_1(m)$ from the accessible rooftop of the building to centre of radiation of the antenna will have to be specified. And, the minimum height $h_1(m)$ should be greater than 3.0 m (*Ref: ITU-T Rec K.52(06/21)*)



Figure 9. Antenna propagation covers an accessible rooftop

Exclusion Zone

Under section 4.10 & 4.11, the user is required to indicate the **exclusion zone** pertaining to that sector. Figures 10(i) and 10(ii) below, illustrates the two types of exclusions zones, i.e. circular and rectangular. Where the user implements:-

- a) A circular exclusion zone, he shall submit the radius (a) metres surrounding the antenna.
- b) A rectangular exclusion zone, he shall submit the dimension of the rectangle [a x b] metres.

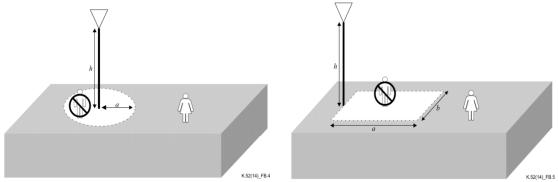


Figure 10 (i) Circular Exclusion Zone Figure 10 (ii) Rectangular Exclusion Zone (Source: ITU-T Rec K.52(06/21)

Adjacent Building

Sections 4.14 to 4.16 require the user to confirm the existence of adjacent building in the surrounding of the antenna radiating from a particular sector. The adjacent building may be higher or lower than the antenna within the said sector, as illustrated in Figure 11 (i) and 11 (ii) below.

The user shall provide the distance between the antenna and the adjacent building, denoted as d(m) and the height of the building, h(m) or h'(m).

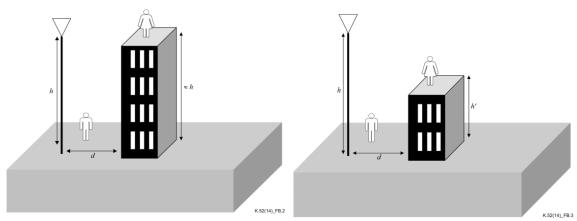


Figure 11 (i) building height is higher than antenna height

Figure 11 (ii) building is lower than than antenna height

(Source: ITU-T Rec K.52(06/21)

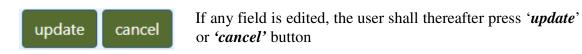


Having provided all relevant information for one sector, the user must press the 'Add sector' button, which will save the information and will allow the user to add other sector information

On pressing the 'Add sector' button, a summary table listing the sectors' main information, is generated, as shown in Figure 12 below. The user may 'Edit' or 'Delete' the details pertaining to any particular sector.

Operator Name	Sector	Azimuth	Total Height	Min Height	Exclusion Zone	Adjacent Building	Action	
EMF Team	1	20	20			no	Edit	Delete
Emtel Ltd	2	120	15	6	no	no	Gaile	Delete

Figure 12. Summary Table of Sector Details



The above steps may be repeated for all remaining sectors for **both host operator and tenant(s)**, where applicable.

To proceed to the following page, the user shall tick the checkbox as shown in Figure 13 below. It is mandatory that **each operator** needs to have **at least one sector** defined before proceeding.

Details pertaining to ALL sectors for this station have been submitted above.

You need to check this box in order to be able to click on the "Save and Proceed" button

Figure 13. Checkbox confirming ALL sector details

Section 5 TECHNOLOGY DETAILS

Section 5 requires the user to submit the details of all mobile technologies which will be used in **each respective** sector defined earlier for host and tenant (as applicable). The different mobile technologies include: -

- o GSM 900
- o GSM 1800
- o UMTS 2100 (B1)
- o UMTS 900 (B8)
- o LTE 2100 (B1)
- o LTE 1800 (B3)
- o LTE 900 (B8)
- o LTE 2600 (B38)
- o LTE 800 (B20)
- \circ 5G 2.6 GHz (N41)
- \circ 5G 3.5 GHz (N78)

For **each** sector, the **respective** mobile technology with the associated technical parameters for example electrical tilt, antenna gain or EIRP, should be submitted. The exact make and model of the antenna being used in **each** sector for **each** technology needs to be specified.



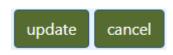
Having provided all information pertaining to one technology for one sector, the user must press the '*Add technology*' button, to add more technologies on the sector or for another sector.

On pressing the 'Add Technology' button, a summary table listing the sectors' main technology information, is generated, as shown in Figure 14 below. In this table, the user may 'Edit' or 'Delete' the technology details pertaining to any particular sector.

Summary Table



Figure 14. Summary Table of Technology Details



If any field is edited, the user shall thereafter press 'update' or 'cancel' button.

To proceed to the following page, the user shall tick the checkbox as shown in Figure 15 below. It is mandatory that **each operator** need to have **at least one technology defined in each sector** before proceeding.

Details pertaining to ALL technologies for each applicable sector for this station have been submitted above. You need to check this box in order to be able to click on the "Save and Proceed" button

Figure 15. Checkbox confirming ALL technology details

For the purpose of compliance determination, the same mid-band frequency of each mobile technology (except for 5G), as shown in Table A hereunder, will be used for all operators.

Technology	Mid-band frequency
GSM900	942.5
UMTS900 (B8)	942.5
LTE900 (B8)	942.5
GSM1800	1842.5
LTE1800 (B3)	1842.5
UMTS2100 (B1)	2140
LTE2100 (B1)	2140
LTE2600 (B38)	2595
LTE 800 (B20)	806
5G – 2.6 GHz (N41)	2550 (Emtel)
5C 25 CH (N70)	3450 (MTML)
5G – 3.5 GHz (N78)	3550 (Cellplus)

Table A Mid-band Frequencies

COMPLIANCE CALCULATION

Based on the submitted information, the user will be informed if the base station is compliant to ITU-T recommendation K.52, as applicable. The possible outcomes are:-

- a) **The site is compliant**. In this case, the user shall therefore proceed to the next section of the application.
- b) The site is non-compliant. The user will be informed which particular sector is not compliant and will be requested to review its technical parameters and to proceed accordingly. In the case of a modification of site, if one sector has been found as non-compliant, the user may submit a measurement report in accordance with the in-situ measurement protocol, as an attachment in Section 6.

Section 6 ATTACHMENT UPLOADING SECTION

Note: The user is strongly advised to obtain all required documents prior to making an application for registration of base station.

Section 6 requires the user to attach all relevant documents to support the application. The following documents must be submitted:-

- a) A clearly marked and readable CONTEXT PLAN (min scale 1:2500) indicating Grid North and showing:
 - o Location of the site within the area, including its boundaries;
 - o The position of all buildings within 100m of the site;
 - o At least one public road for reference, where feasible
 - o Existing mobile infrastructure within 200m radius.

This attachment must be labelled as **Sitename_plan**

b) A clearly marked side and front ELEVATION DIAGRAMS (min scale 1:100) to show the height of installation from centre of radiation of all antennas to ground and any adjoining or adjacent buildings.

Note:- For antennas installed on buildings, the elevation of different floor levels must be also specified.

Cross section diagrams should be provided where installation is partially hidden in the elevations by other existing equipment or roof structures.

This attachment must be labelled as *Sitename_elevation*.

- c) A clearly marked TOP VIEW DIAGRAM (min scale 1:100) to identify
 - o the different sectors,
 - o any adjoining or adjacent buildings (specifying their distance and height),
 - o any proposed safety/security measure in the direction of propagation of each sector.

This attachment must be labelled as *Sitename_sectors*.

d) Measurement Report

In-line with Section 5 *COMPLIANCE CALCULATION*, where a site has been modified and found to be non-compliant, the user may submit a measurement report (in accordance with ICTA's in-situ measurement protocol available on https://www.icta.mu/radiocom.html#rad4). This attachment must be labelled as *Sitename_report*.

Note:-

Only files with extensions .jpg, .jpeg, .png, .gif, .pdf, .txt, and .zip can be uploaded. Files must be less than 15MB.

- o If the files are more than 15MB or if the user has more than one file to upload in a particular section, the files must be zipped and then uploaded. The maximum size of a zip file is 15MB.
- o If the zip file is larger than 15MB, the user will have to make use of an online file sharing service (e.g. www.dropbox.com) and to follow the steps below:-
 - Save the URL provided to access the file in dropbox in a text file (filename.txt); and
 - ii Upload this text file in the relevant section of this application form.

Section 7 DECLARATION OF COMPLIANCE SECTION

After completing Section 1 to Section 6, the user will be required to submit a declaration of compliance for successful registration of the base station. An email will be sent to the operator with an automatically generated Site ID assigned to that base station which confirms that the said base station has been successfully registered on the ICTA Online portal.

4.3 Registration of Distributed Antenna System (DAS)

Distributed Antenna System (DAS) means a network of spatially separated antenna nodes connected to a common source via transport medium that provides wireless service within a geographic area or structure.

For the purpose of registration of base stations on the ICTA Online Portal, installations comprising of antennas of installation class E2 and E10, as specified in the IEC 62232:2017 would be registered as DAS.

While in the case of base stations, compliance by calculation is the preferred option for registration, in the case of DAS installations as defined above, the basis for registration shall be an in-situ measurement report.

Registration of a Distributed Antenna System on the ICTA Online Portal shall be effected after the operator has ensured that all requirements have been met with regards to compliance with the relevant norms and exposure limits for such type of installations.

For <u>each</u> registration made, a unique station ID will be assigned to the base station which will be used as the main reference throughout the ICTA Online Portal.

There are seven main sections throughout the application form, as explained hereunder:-

Section 1 OPERATOR DETAILS

In the case of Distributed Antenna System, this section is same as described in Section 4.2 above for the registration of base station.

Section 2 STATION DETAILS

Section 2 is similar for the case of base station as detailed above in Section 4.2. One addition to this Section is that the user needs to confirm that the DAS installation complies with the relevant standards before proceeding with the registration, as per below:

☐ We confirm that the DAS installation complies with installation class specified in IEC 62232:2017 and that, in accordance with the In-Situ Measurement Protocol, the electric field levels do not exceed 10W at any instance.

You need to check this box in order to be able to click on the "Save and Proceed" button

Figure 16. Checkbox confirming compliance of the DAS installation

Section 3 ANTENNA TYPE DETAILS

Section 3 requires the user to provide the make, model and directivity of all the different **types** of antennas installed in the Distributed Antenna System.



Having provided all relevant information for one antenna type, the user must press the 'Add Antenna Type' button, which will save the information and will allow the user to add other types of antenna for the installation.

Summary Table

Antenna Make	Antenna Model	Directivity	Action
kathrein	800120213	Omnidirectional	Delete
huawei	7324234	Directional	Delete

Figure 17. Summary Table of Antenna Type Details

On pressing the 'Add Antenna Type' button, a summary table listing the different types of antennas defined for that installation is generated, as shown in Figure 17 above.

Section 4 FLOOR DETAILS

In Section 4, the user must define the different floors that the DAS covers and the total number of antennas per floor.

The Floor ID is defined by the user based on the different identifiable locations of the antennas such as Ground, Mezannine, F1, etc...



Figure 18. Summary Table of Floor Details

On pressing the 'Add Floor' button, a summary table listing the different floors/regions covered by that installation is generated, as shown in Figure 18 above.

Section 5 ANTENNA DETAILS

Section 5 requires the user to define ALL the antennas installed in the DAS on a per floor basis. The Antenna ID is a naming convention defined by the operator. The antenna type and floor location shall be selected based on the previous definitions made in Section 3 and 4 as described above. The user also needs to input the height for each antenna from its corresponding floor level. This height shall be greater than 2.2m, as specified in the IEC 62232:2017 for such installation class.



Figure 19. Summary Table of Antenna Details

All antennas are input for the installation by pressing the 'Add Antenna' button and a summary table of ALL the antennas defined will be generated as in Figure 19 above. The user may also 'Edit' or 'Delete' each antenna details.



If any field is edited, the user shall thereafter press 'update' or 'cancel' button.

To proceed to the following page, the user shall tick the checkbox as shown in Figure 20 below. It is mandatory that the details pertaining to **all antennas** for the installation have been submitted before proceeding.

Details pertaining to **ALL antennas for this station** have been submitted above.

You need to check this box in order to be able to click on the "Save and Proceed" button

Figure 20. Checkbox confirming ALL antennas' details

Section 6 TECHNOLOGY DETAILS

In section 6.1, the antenna ID as defined in section 5 shall be selected and **all** the different technologies available on that particular antenna ID can be selected at one go while inputting the corresponding EIRP for all the technologies, as shown in Figure 21 below. The cumulative EIRP per antenna ID, for all technologies selected, should not exceed 40 dBm.

The above steps shall be repeated for all antennas defined for that installation.

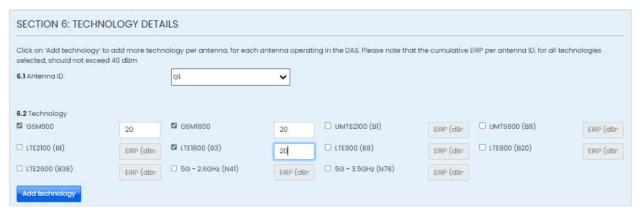


Figure 21. Technology Details

On pressing the 'Add Technology' button, a summary table is generated, listing the antenna ID with the selected technologies and associated EIRP, as shown in Figure 22 below. The user may 'Edit' or 'Delete' the technology details pertaining to each particular antenna.

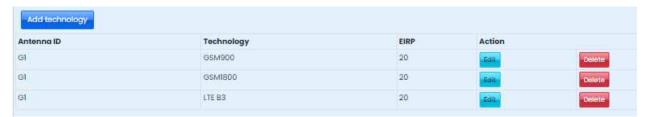
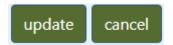


Figure 22. Summary Table of Technology Details



If any field is edited, the user shall thereafter press 'update' or 'cancel' button.

To proceed to the following page, the user shall tick the checkbox as shown in Figure 23 below. It is mandatory that **all technologies for all antennas defined for the installation** have been submitted before moving to the next section.

Details pertaining to ALL technologies for each applicable antenna for this station have been submitted above. You need to check this box in order to be able to click on the "Save and Proceed" button

Figure 23. Checkbox confirming ALL technology details

Section 7 ATTACHMENT UPLOADING SECTION

The user is strongly advised to obtain all required documents prior to making the registration of DAS.

Section 7 requires the user to attach the following **mandatory** documents to support the registration of the DAS:

- a) A clearly marked and readable CONTEXT PLAN (min scale 1:2500) indicating Grid North and showing:
 - o Location of the site within the area, including its boundaries;
 - o The position of all buildings within 100m of the site;
 - o At least one public road for reference, where feasible
 - o Existing mobile infrastructure within 200m radius.

This attachment must be labelled as Sitename_location

b) Clearly marked layout plans (top view and front/cross sectional view) (min scale 1:100) for each floor to show the location of each antenna, providing its height from centre of radiation to floor level and its distance from other antennas.

This attachment must be labelled as Sitename_layout

c) The Measurement Report, in accordance with the ICTA's In-Situ Measurement Protocol (available on https://www.icta.mu/radiocom.html#rad4), for the particular DAS.

This attachment must be labelled as *Sitename_report*.

Section 8 DECLARATION OF COMPLIANCE SECTION

This section is same as described in Section 4.2 above for the registration of base station.

4.4 Partially Saved Applications

This option provides the user with a view of all applications which have been previously saved and which have not yet been submitted on the Online Portal.

The user may select to 'Continue' or 'Delete' the application, as appropriate.

4.5 Previously Submitted Applications

This section provides the user with four different options as explained below: -

a) View

This option allows the user to view the technical parameters of all registrations which have been submitted on the ICTA Online Portal. This option is a view-only of the registrations and the user cannot modify any details..

b) Update

This option requires the user to provide the **start date of operation** of a registered base station, and submit a photo of the installation. For rooftop-mounted scenarios,, the installation and building must be visible.

This attachment must be labelled as *Sitename_photos*.

c) Modify

This option enables the user (host operator) to modify the technical parameters of a registered base station on the portal.

The user will be presented with the same set of pages as described in section 4.2/4.3 above in which the necessary amendments may be carried out. However, certain fields may not be modified at any point in time and these will be greyed out in the relevant sections.

Once the base station has been modified and successfully registered on the portal, the new registration of the said base station will overwrite the existing one, with **same Site ID** but **different registration no**.

It is important to note that the option 'Modify' is only applicable to those sites which have been updated, as stipulated in Section 4.5(b) above. Those sites which have not been updated as per section 4.5(b), will **not** appear in the table with the option 'Modify'.

Furthermore, if the user wishes to modify a site in more than one session, the user may then continue to modify the said site under the tab 'Partially Saved Applications'.

d) De-Register

This option enables the user (host operator) to de-register any of theregistered sites. The user will be required to confirm either one of the following reasons for which deregistration is being applied for: -

- Installation not implemented
- Installation no more in operation

For the second option, the user should provide the date at which the said site will cease to be in operation.

4.6 Registered co-located Base Station

This option provides the **tenant operator** a **view-only** access to the technical parameters of those sites, which have been co-located on the host operator's base station.

The tenant operator will **not** be able to view the technical parameters of the host operator's base station.