Training Module Four: Completing the TAC Band Profile Requirements

October 2025

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An introduction to the new TAC Band Profile requirement

MNOs now require highly detailed band performance data

- Quadrature Amplitude Modulation (QAM)
- Multiple-Input and Multiple–Output (MIMO) for both up and down links
- Combinations Modulation (CM)
- Maximum contiguous bandwidth
- Maximum power class
- Optional modulation order.

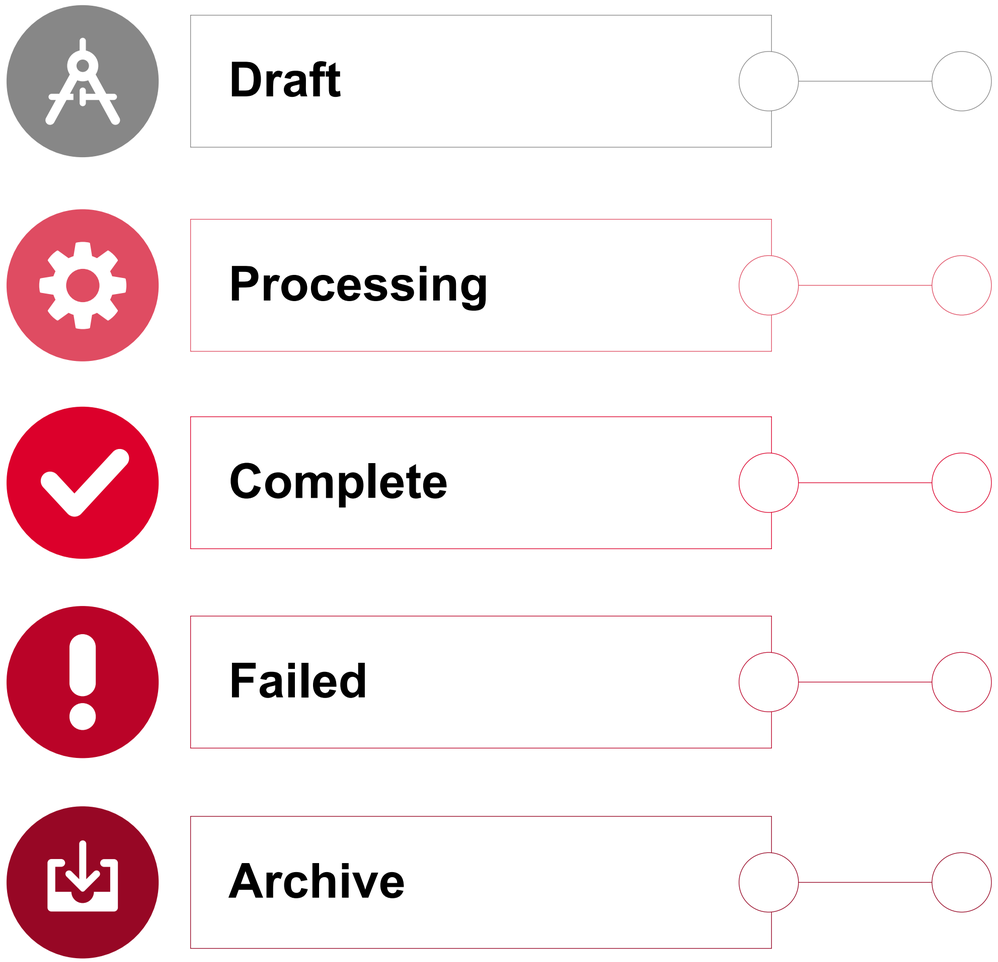
Online input from Data Collection Sheet provided to ease data curation

A Data Collection Sheet has been created to allow OEMs to gather and prepare information offline BEFORE inputting the Band Profiles online prior to commencing TAC applications.

Key rules

All TAC applications must be accompanied by a completed Band Profile
Brand Owners can easily modify or copy a Band Profile to create different versions for existing or future devices
One Band Profile can be applied to multiple TAC.

Band Profile
5 status options



Draft – enter your Profile Name *(Recommendation: use the Device model name)* and commence inserting the correct data.
Use the SAVE AS DRAFT button when saving new updates.

Processing - when ready to submit, use the SAVE AS COMPLETE button, to commence processing. On completion an email notification is sent and the Status changes to Complete/Failed. Refresh the List of Band Profiles if the Status has not changed.

Complete – Email confirmation and Status change indicates the Band Profile is now ready to be attached to a TAC application. Further modifications to the completed Profile, is possible prior to assigning to a TAC.

If issues during **Processing**, users will receive an email detailing the reasons why the Band Profile **Failed** and actions to correct.

Archive a Band Profile to minimise the number of entries on List of Band Profiles, you can activate or copy to reuse in the future.

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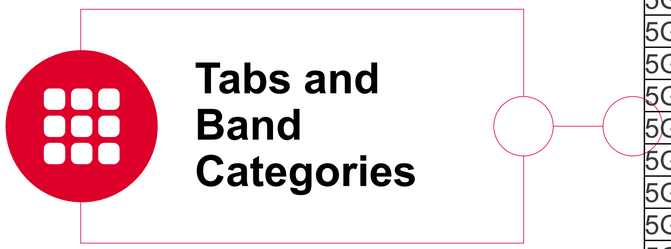
Band Profile Abbreviations



Tab Name	Description (Reference 3GPP TS 38.101)
5G REDCAP	5G REDCAP
5G NR	5G New Radio (NR) Standalone
5G NR 2B CA FR1	5G NR Standalone 2 Band (2B), Carrier Aggregation (CA), Frequency Range 1 (FR1)
5G NR CA SUL	5G NR Standalone CA, Supplementary DownLink (SUL)
5G NR CA FR1	5G NR Standalone Intra-band CA FR1
5G NR CA FR2	5G NR Standalone Intra-band CA FR2
5G NR CA FR1-2	5G NR Standalone Inter-band CA, between FR1 and Frequency Range 2 (FR2)
5G NR 2B CA FR2	5G NR Standalone Intra-band 2B CA FR2
5G DC CA EN-DC 2B	5G Dual Connectivity (DC) Standalone Intra-band CA contiguous E-UTRA/NR Dual Connectivity (EN-DC) 2B
5G DC CA NC EN-DC 2B	5G DC Intra-band CA Non-Contiguous (NC) EN-DC 2B
5G DC BC EN-DC FR1 2B	5G DC Inter Band Combinations (BC) for EN-DC within FR1 2B
5G DC BC EN-DC FR1 3B	5G DC Inter BC for EN-DC within FR1 3B
5G DC BC EN-DC FR1 4B	5G DC Inter BC for EN-DC within FR1 4 Band (4B)
5G DC BC EN-DC FR1 5B	5G DC Inter BC for EN-DC within FR1 5 Band (5B)
5G DC BC EN-DC FR1 6B	5G DC Inter BC for EN-DC within FR1 6 Band (6B)
5G DC BC NE-DC FR1 2B	5G Dual Connectivity (DC) Inter Band combinations for NE-DC including FR1 (Two Band)
5G DC BC NE-DC FR1 5B	5G Dual Connectivity (DC) Inter Band combinations for NE-DC including FR1 (Five Band)
5G DC BC EN-DC FR2 2B	5G DC Inter BC for EN-DC within FR2 2B
5G DC BC EN-DC FR2 3B	5G DC Inter BC for EN-DC within FR2 3B
5G DC BC EN-DC FR2 4B	5G DC Inter BC for EN-DC within FR2 4B
5G DC BC EN-DC FR2 5B	5G DC Inter BC for EN-DC within FR2 5B
5G DC IB EN-DC FR1-2 3B	5G DC Inter Band (IB) EN-DC including both FR1 and FR2 3B
5G DC IB EN-DC FR1-2 4B	5G DC IB EN-DC including both FR1 and FR2 4B
5G DC IB EN-DC FR1-2 5B	5G DC IB EN-DC including both FR1 and FR2 5B
5G DC IB EN-DC FR1-2 6B	5G DC IB EN-DC including both FR1 and FR2 6B
5G NA Options	5G Network Architecture Option
4G CA	4G Carrier Aggregation (CA)
4G CA Config	4G Carrier Aggregation (CA) Configurations
4G IB CA 2B	4G IB CA 2B
4G NC CA 2B	4G NC CA 2B
4G IB CA 3B	4G IB CA 3B
4G IB CA 4B	4G IB CA 4B
4G DC 2B	4G Inter-band Dual Connectivity (DC) 2B
4G	EUTRA / LTE / 4G
4G Cat	EUTRA / LTE / 4G Category Support (Cat)
LPWAN	Low Power Wide Area Network (LPWAN)
2G/3G	2G and 3G
Radio Interface	Other 3GPP or 3GPP2 Networks supported by the device
NTN	Satellite Orbit Connection
SATELLITE	Satellite

Source: GSMA

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Login to your account and locate Band Profile from the Dashboard

1. Login using your **manufacturer credentials** and **2 factor security answer**

2. Click on **“Band Profile”** found on the navigation menu on the left. This will present you with another option in the menu to open **“Create/Update Profile”**

1

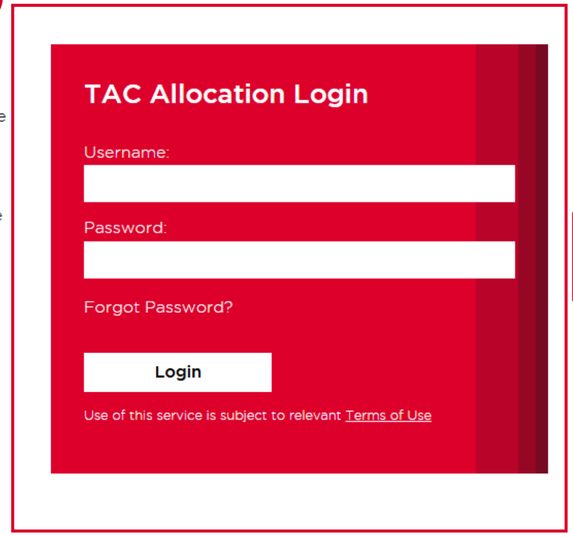
Need to apply for TAC?

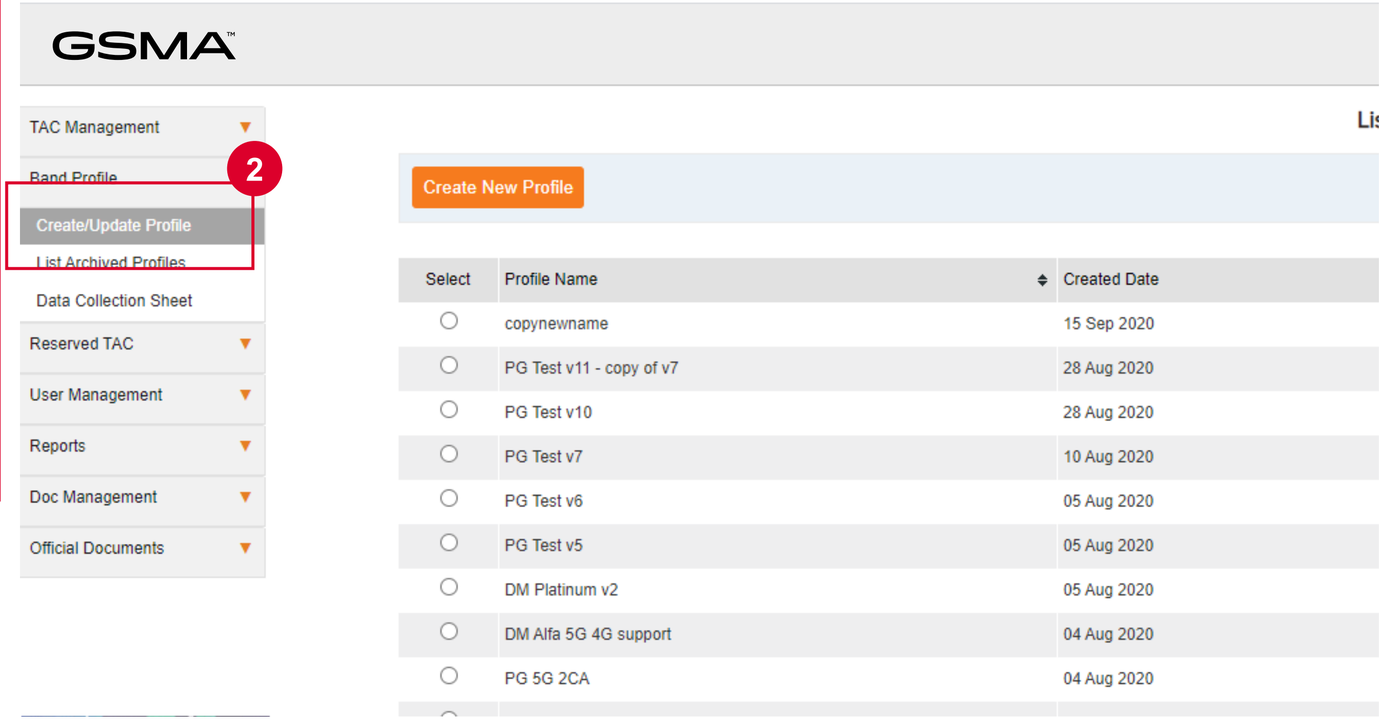
3GPP requires all device types that can connect to a mobile wireless network to be identifiable by a Type Allocation Code (TAC), including IoT devices, payment terminals and connected vehicles. Crucially, it’s the 8-digit number that forms the first part of the 15-digit IMEI (International Mobile Equipment Identity), which uniquely identifies each individual connected device, so they can be transported around the world.

TAC / IMEI also helps enable governments to collect the correct taxes, devices to operate globally on mobile networks, and the identification of counterfeit or stolen devices.

Registering for the first time?

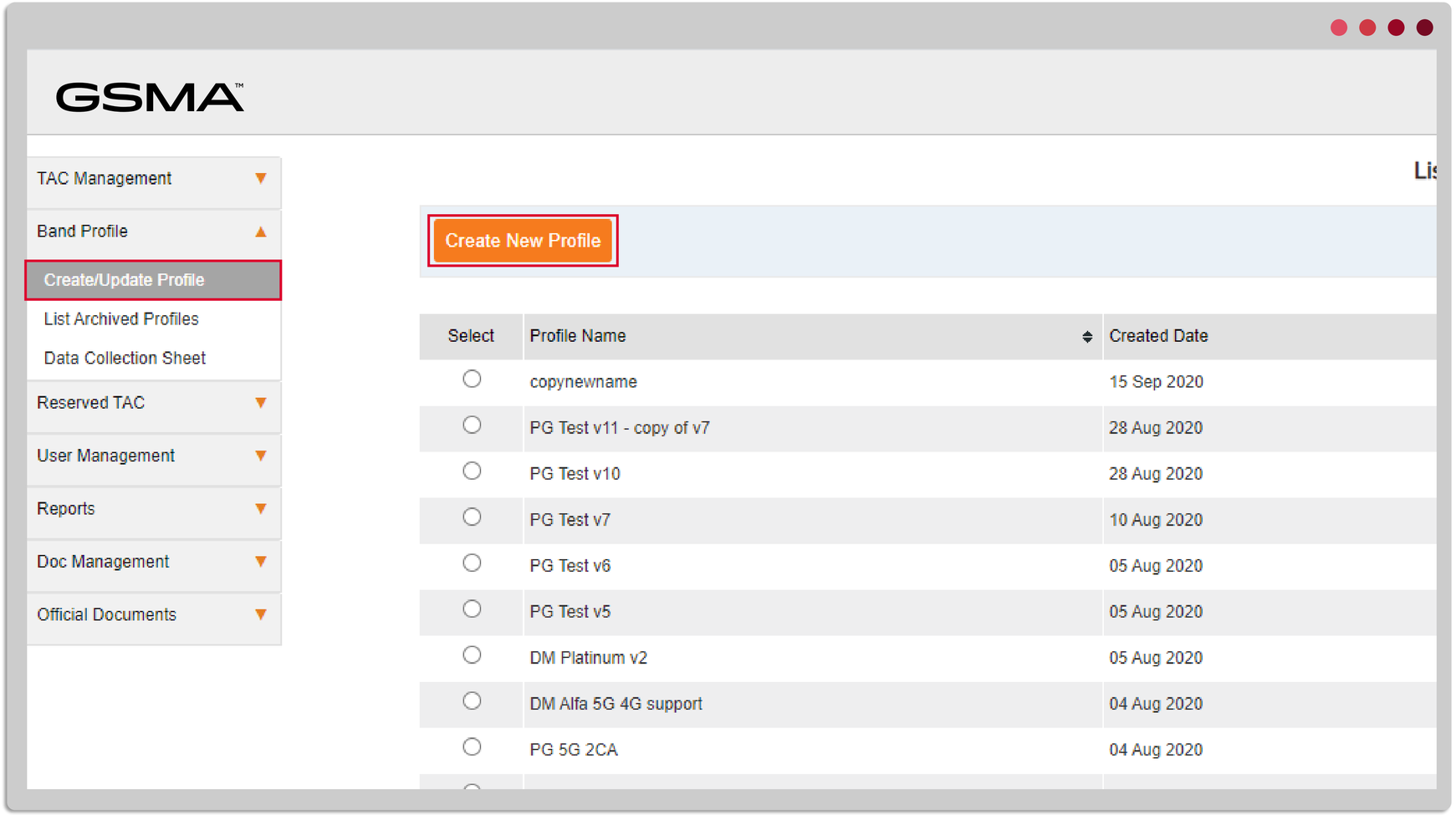
Please use the button below to start the process. As there are strict rules governing TAC allocation, we suggest you also download our training modules here.





Select Create/Update Profile

Click on the **‘Create/Update Profile’** menu, on the first visit you will see this page, as you have no profiles created yet. To create a new profile click ‘Create a New Profile’.



The Band Profile in 5 steps

Please be careful to include ALL the Bands/Networks a device can support in your Band Profile

Step 1

Select all **Bands supported**
Then select **all Network Performance** values to go with each band

Step 2

The 5G and 4G CA bands are further categorized into the number of bands within the bands they support. For example 5G 2 bands, 5G 3 bands, 4G CA 2 bands

Step 3

Select the network performance values from the dropdown list.
The 5G Network Architecture (5G NA Options), 4G Cat and Radio Interface are mandatory to be filled before saving the profile as complete

Step 4

Use **SAVE AS DRAFT** including giving your Band Profile a recognizable profile name, i.e. the model name plus date/version control number

Step 5

Use **SAVE AS COMPLETE** when you are ready, once your Band Profile has been successfully processed the status will move to **Complete**

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Create a New Band Profile: Step 1

1 — 2 — 3 — 4 — 5

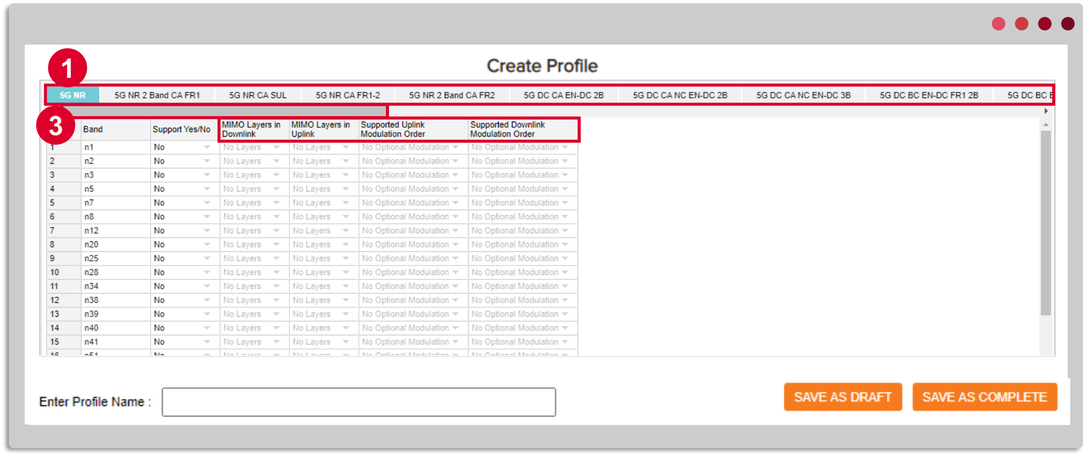
You will now move to see all the possible bands supported across the **horizontal tabs**, commencing with 5G NR and moving down to 2G/3G.

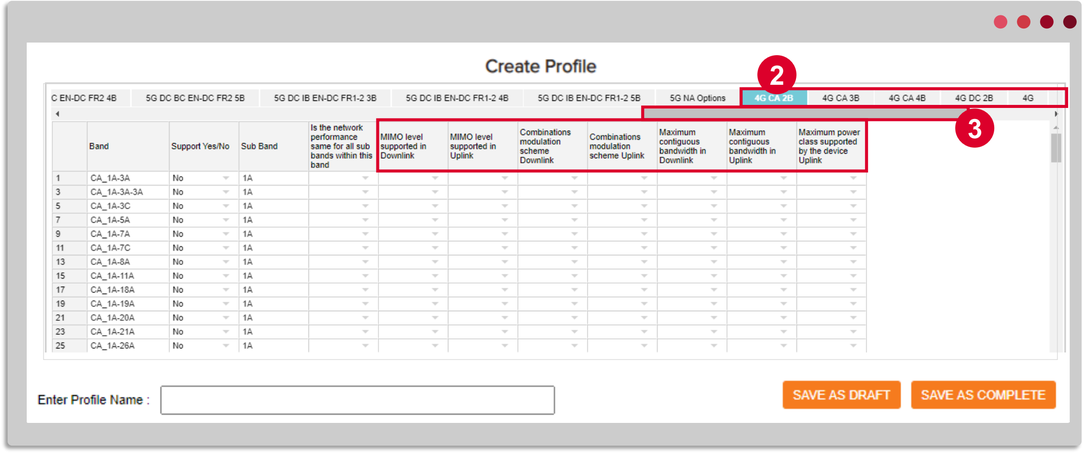
The 5G, 4G and CA bands are further categorized into the number of the band within the bands they support.

For example 5G 2 bands, 5G 3 bands, 4G CA 2 bands, and so on. Click on the tab to see the band frequencies supported under the category.

1. The network performance options
2. for **5G, 4G CA and 4G are different**

3. Use the **scroll bar** to see all the tabs





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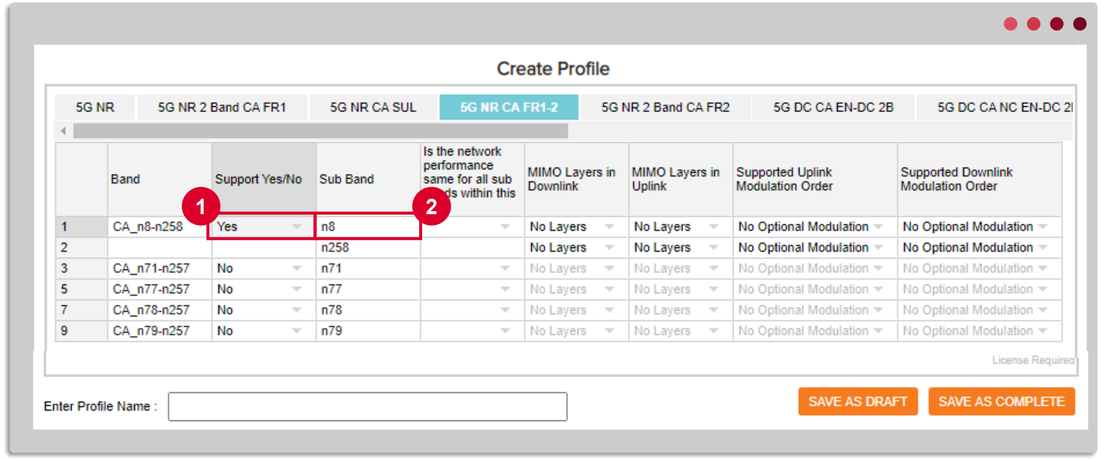
Create a new Band Profile: Step 2

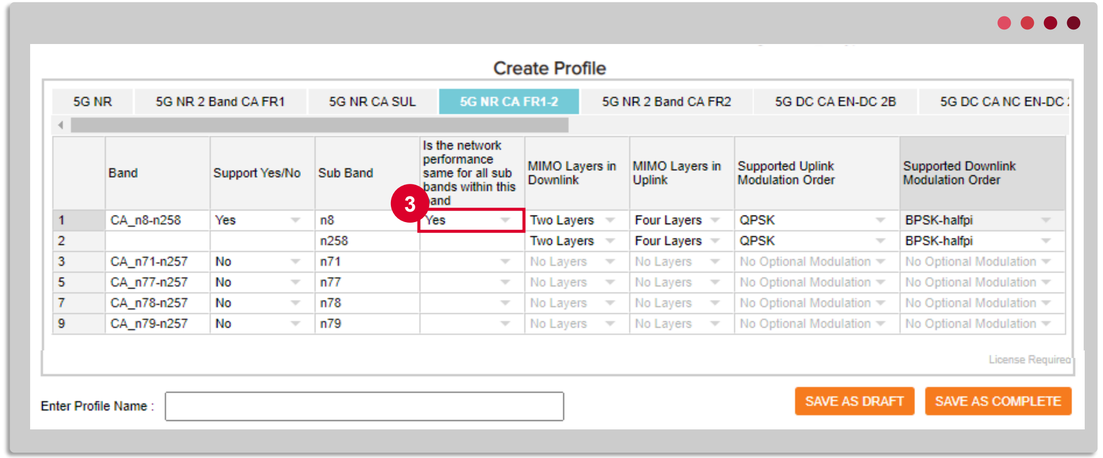
1 — **2** — 3 — 4 — 5

Select “Support” “Yes” or “No” for **each** band supported by a device. Once “Yes” is chosen the system will list all the sub band options within the band. example the sub bands for CA_1A_3A are “1A” and “3A”.

For 5G and 4G bands, please also select the respective network performance values.

1. Click on the support **Yes or No,** select Yes
2. When selecting Yes, the system opens the information for all Sub Bands of the band selected
3. Use the next column to clarify whether the network performance bands within the band have the same value or not.
   Click **Yes or No**
4. If **No**, then complete the performance values for each Band within a Sub Band.
   If **Yes**, you only need to complete the first row, as the other sub bands values are automatically filled





Create a New Band Profile: Step 3

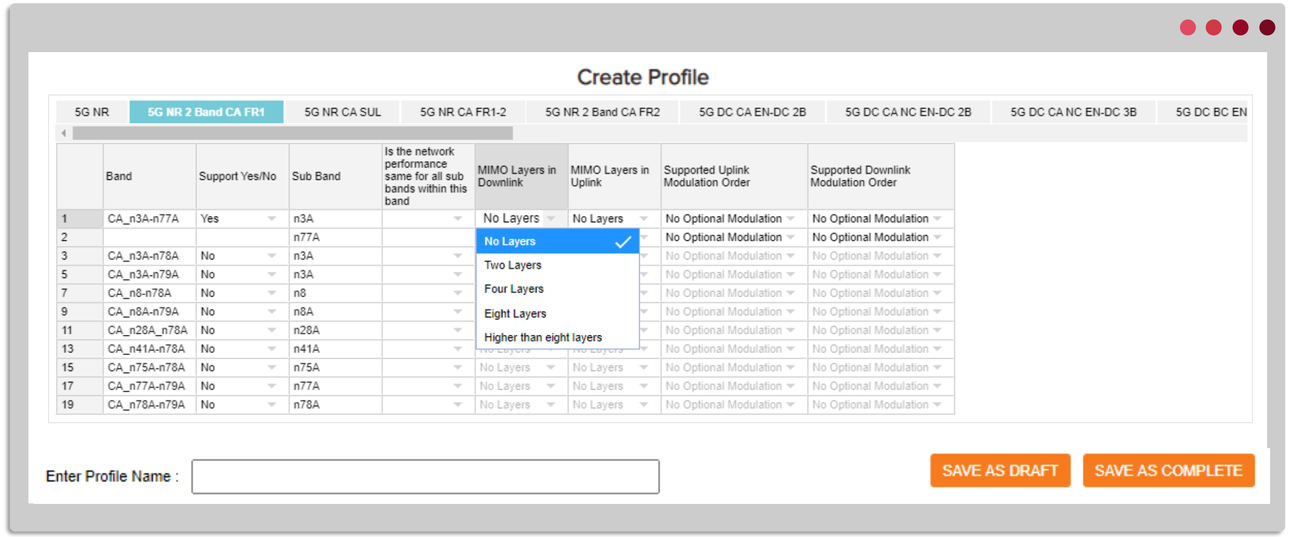
Remember MNOs will use this data to ensure users of your devices have the best quality network experience

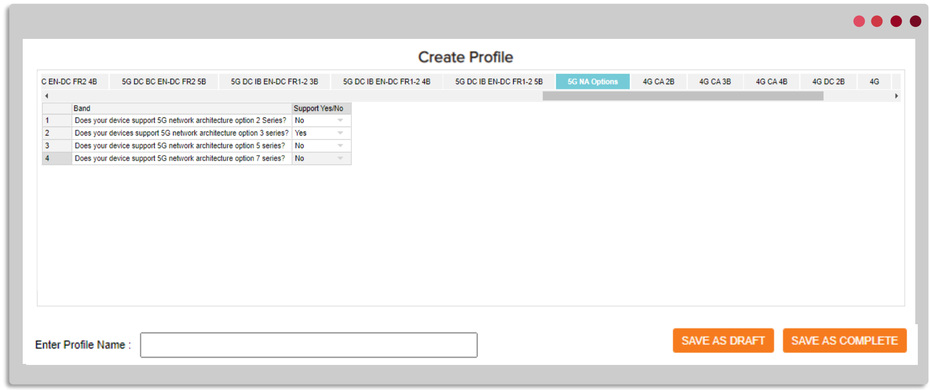
1 — 2 — **3** — 4 — 5

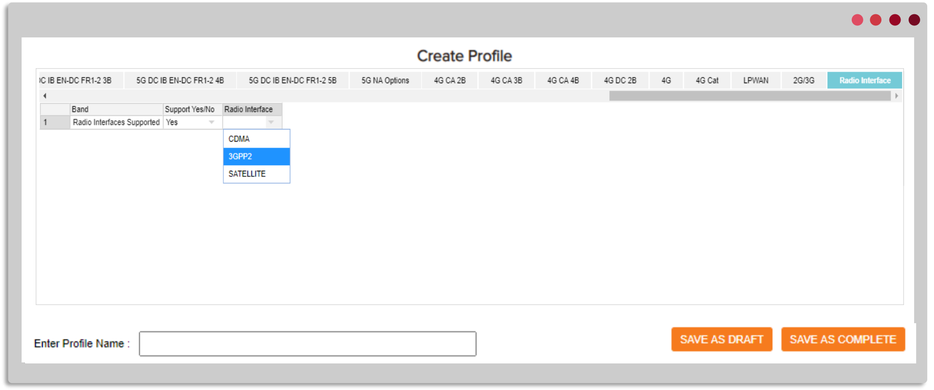
Select relevant supported bands and the related supporting network performance values.

Select the network performance values from the dropdown list. Some network performance columns display the default value when the Create Profile loads.

Note: The 5G Network Architecture (5G NA Options), 4G Cat and Radio Interface are mandatory to be filled before saving the profile as complete.







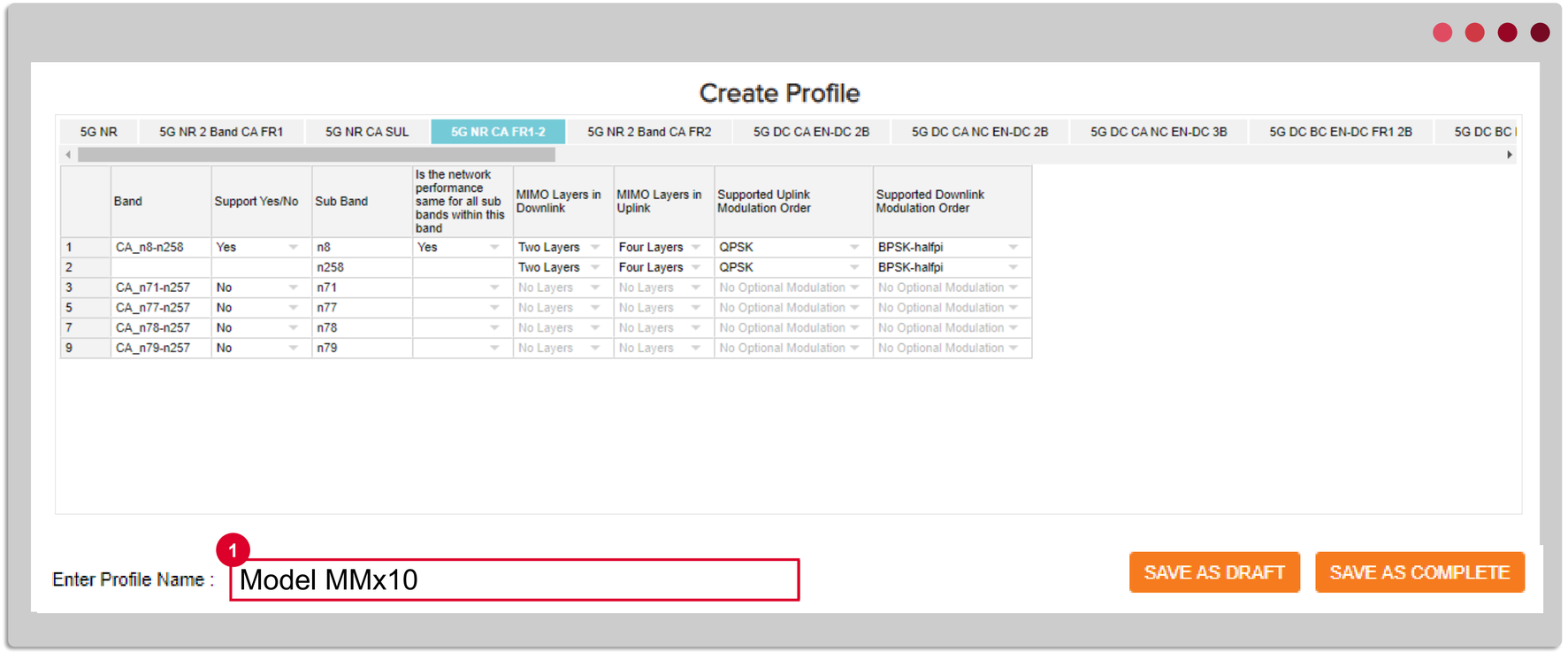
Create a New Band Profile: Step 4

1 — 2 — 3 — **4** — 5

The system allows you to save the profile as draft if required, **to allow the form to be completed or updated at a later time**.

Enter a meaningful Profile name and click the SAVE AS DRAFT button.

The profile name can be changed later DRAFT is **updated and/or save as complete**.



1 Enter your Band Profile name

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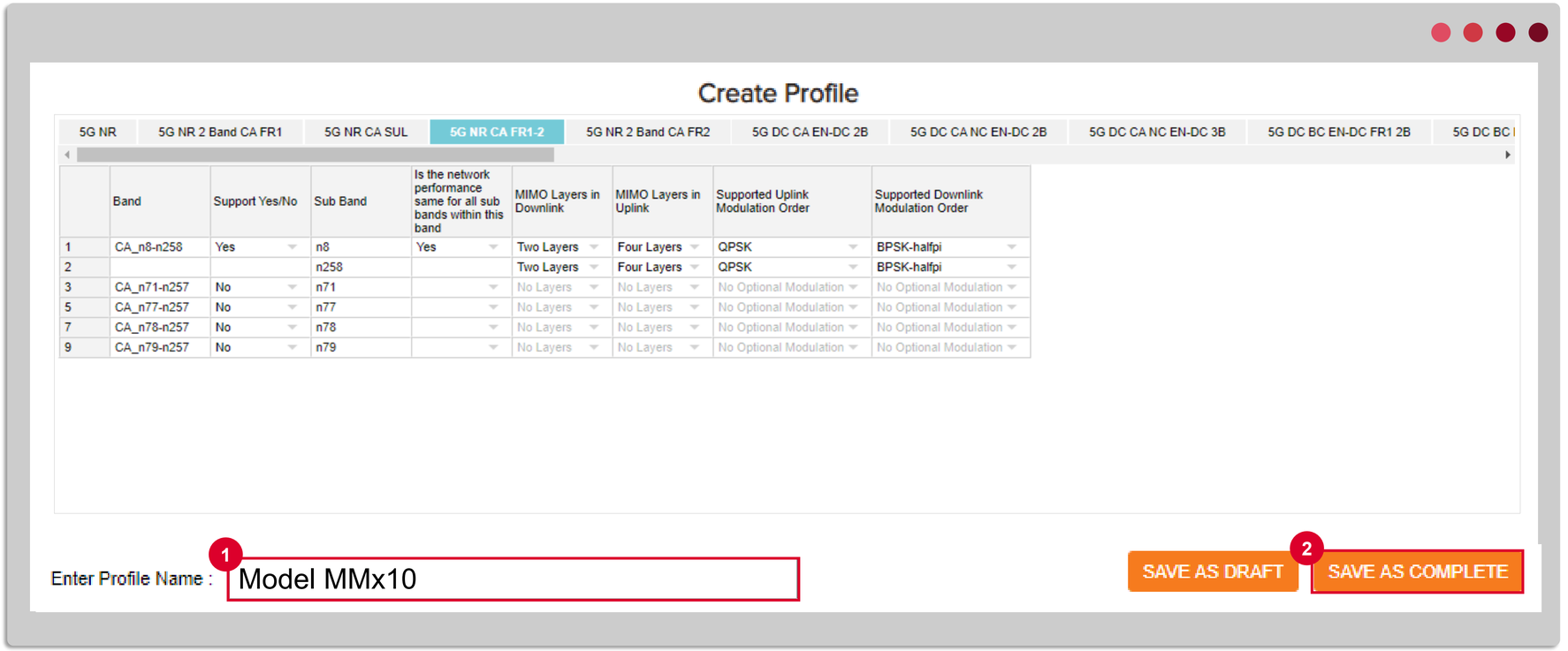
Create a New Band Profile: Step 5

1 — 2 — 3 — 4 — **5**

Once you have entered all the supporting information, make sure you name the Band Profile before selecting ‘Save as Complete’.

The system will validate the values and display a message in case there are errors which need correction.

Once you clear the errors, click on Save as Complete again. You will see the message “Band Profile Saved Successfully”.



1 Enter your Band Profile name

2 Save as either DRAFT or COMPLETE

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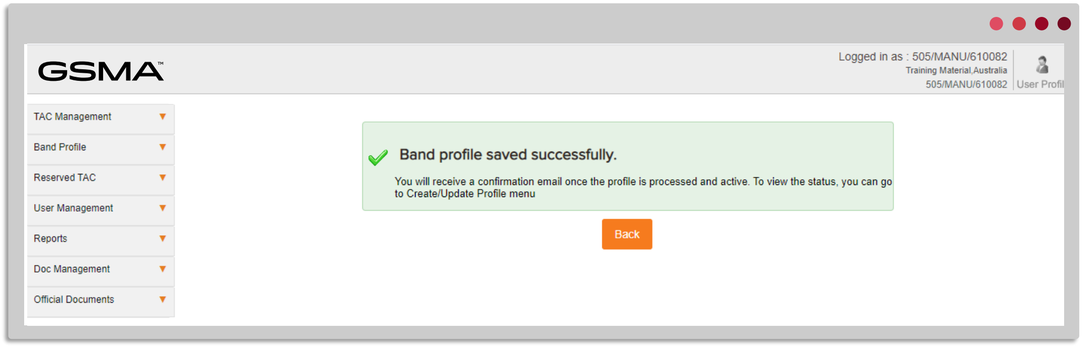
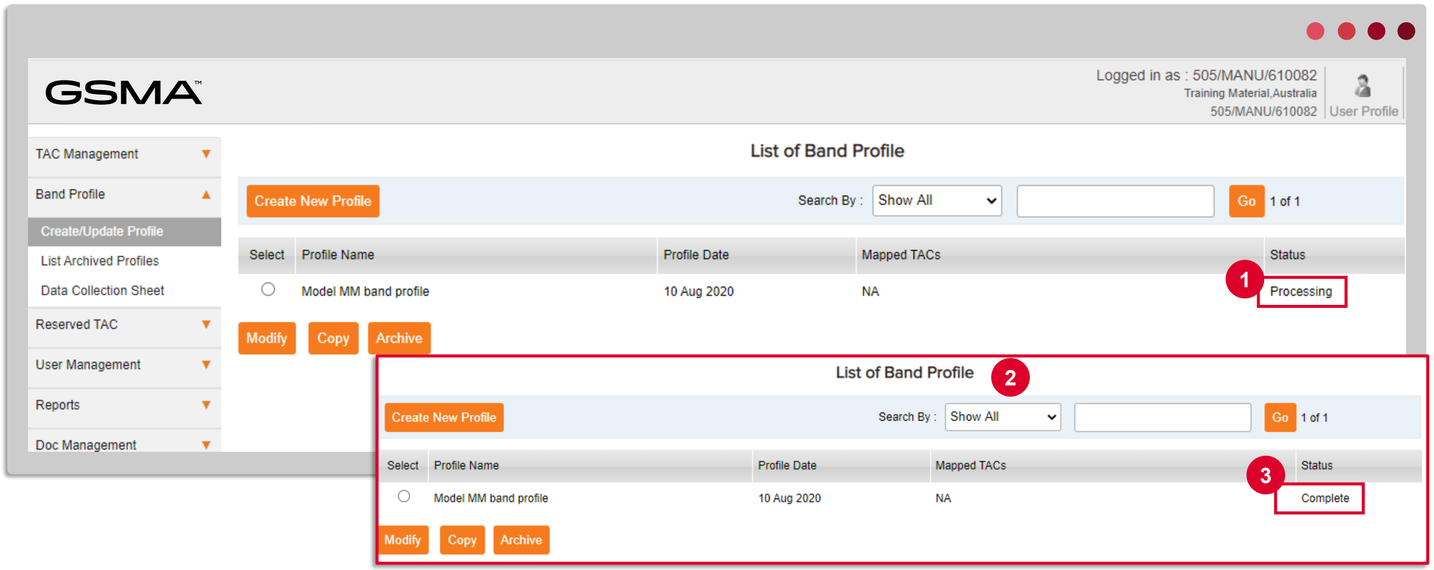
Create a New Band Profile Step 5

1 — 2 — 3 — 4 — **5**

Once the profile is saved as complete, the system will process the profile data to store them in an organised data format. This will take a couple of minutes. Until such time, the status of the profile will display ‘Processing’.

Once the processing is complete, the status of the profile will change to ‘Complete’. The profile is now ready to be attached to a TAC application.





1. Profile under “Draft” or “Processing” status cannot be attached to a TAC application
2. The **List of Band Profile** after successful processing of the profile
3. The Status of a successfully processed profile changes to Complete

Attaching a Band Profile to a TAC Application

Band Profile created is for a new TAC

Create and complete a Band Profile **BEFORE** you start the TAC Application process as you cannot save a draft TAC Application Form once you have started. To avoid any duplication of effort, the Band Profile should be prepared FIRST and then you can link **Band Profile to the TAC Application** in the correct manner. *(Recommendation: Review TAC Training Module 5: Completing the TAC Allocation Request Form).*

Band Profile for existing TAC needs to be updated

A Band Profile already assigned to a TAC is required to be updated. Select the Band Profile from the List of Band Profiles and then select the MODIFY button to make your changes. Then select SAVE AS COMPLETE, once processing is Completed, you will then need to **Edit TAC** and map the updated profile so the new changes are applied to the TAC.

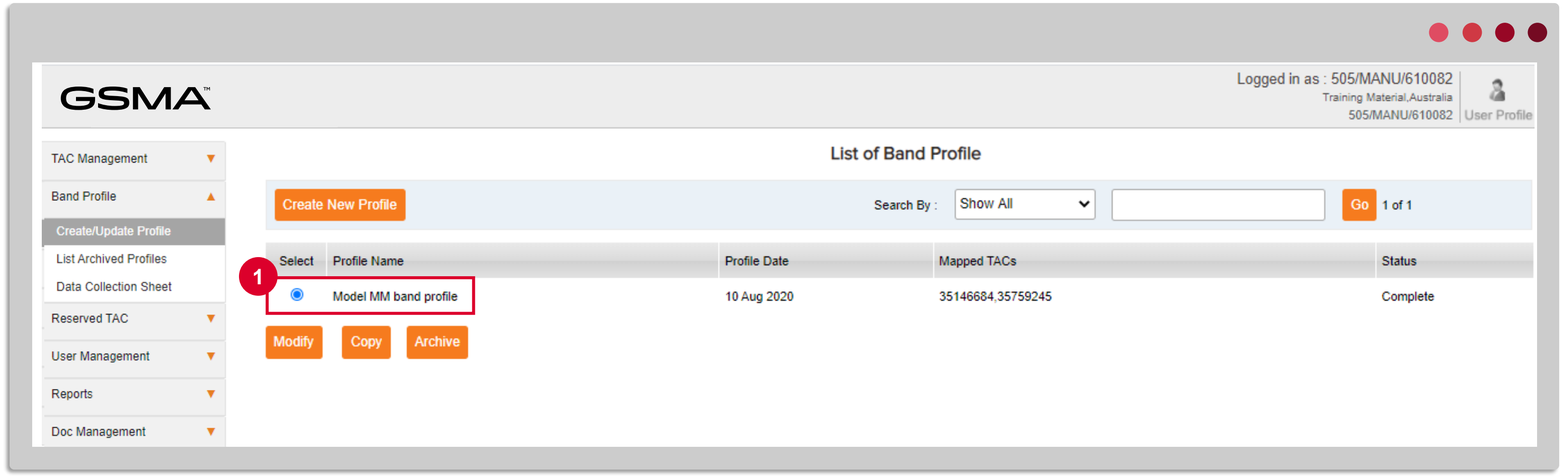
How to Copy a Profile

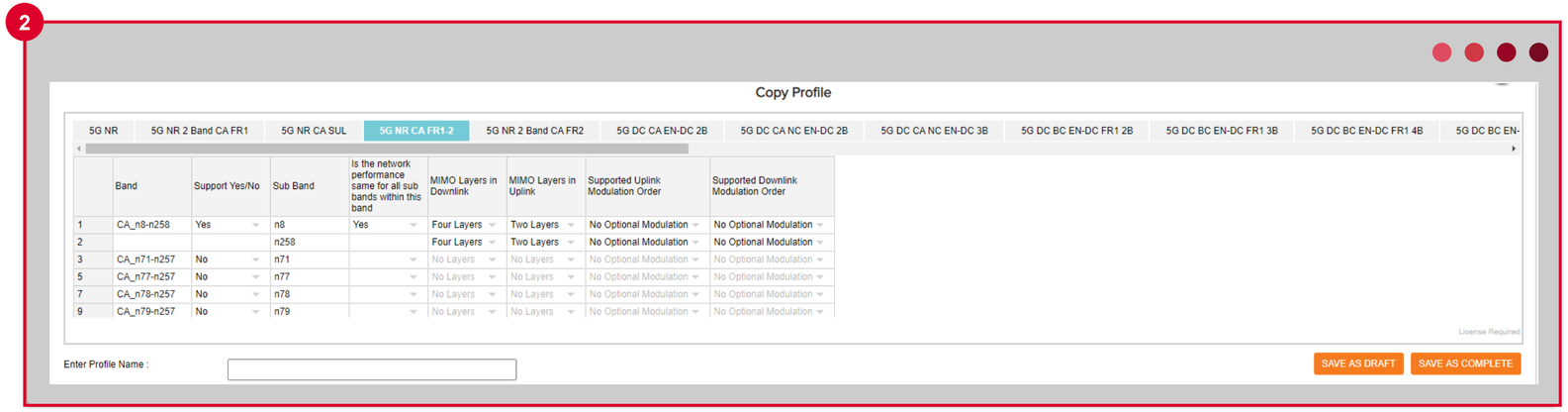
Remember to name the Band Profile consistently, we suggest using the Model Name & ISO date format, YYYYMMDD

Create a copy/duplicate Band Profile by copying the details from an existing Profile; then make any required changes, i.e. add new bands, adjust band support, network performance changes, etc. Save with new Band Profile name.

Copy profile will be useful where you are applying for models that closely match with each other but with few differences.

The original profile will remain as is.





1. To copy a profile, select an existing profile and click copy
2. The system will open the profile window with all the band information of the selected profile displayed. Make the changes, provide a new profile name and Save as complete.

How to Modify a Complete Band Profile

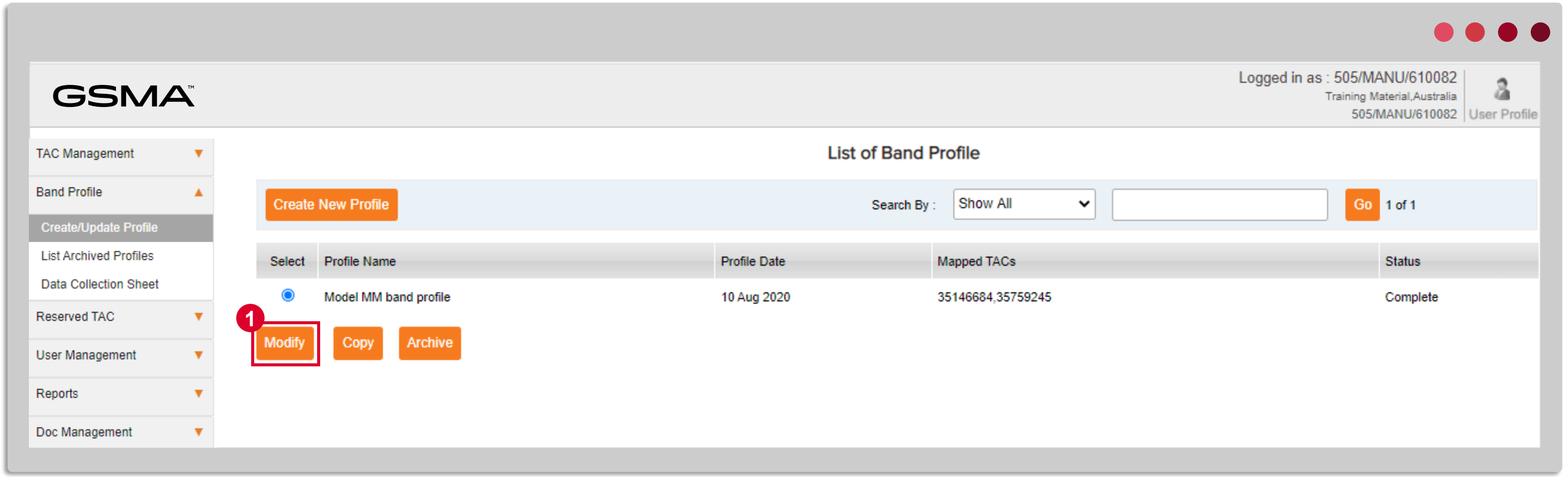
The Modify profile screen is similar to the Create profile but with the supported values already selected

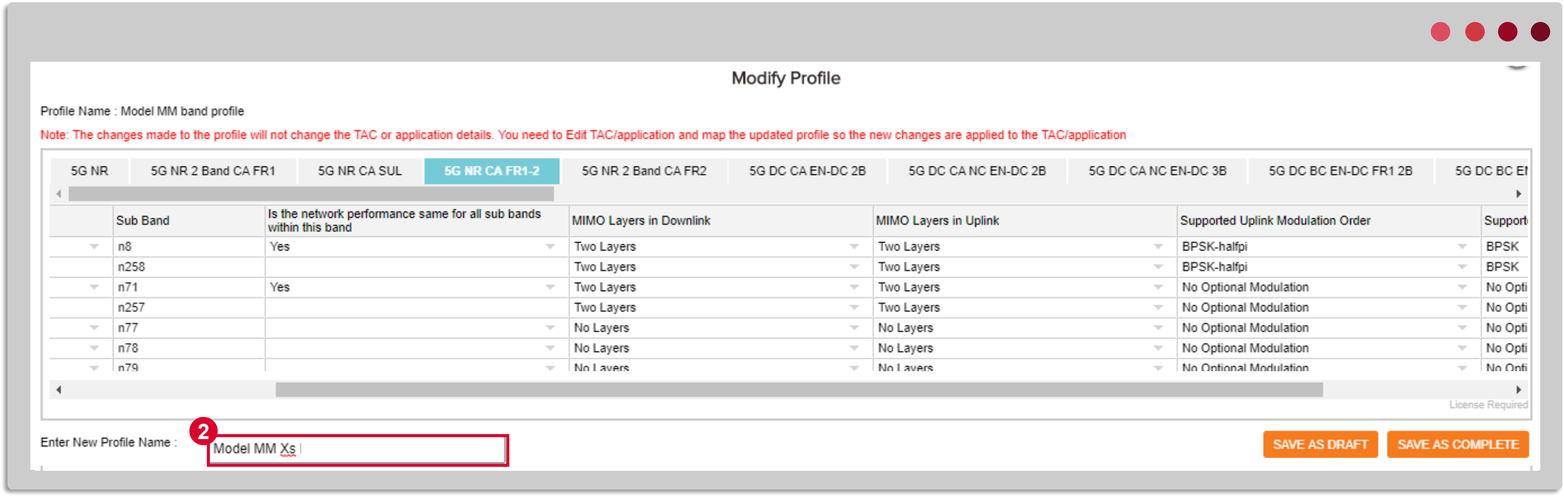
1. Select the relevant Band Profile and **click Modify.**

   Note: Where the Band Profile is not mapped to a TAC application, you can modify the profile and save in the same name.

2. Where the Band Profile is mapped to a TAC, as per this example, you must provide an updated or new **Profile name**.

   After successfully modifying the profile, you need to **complete the Edit TAC process** and attach the **new profile to the existing TAC or new TAC as required.**

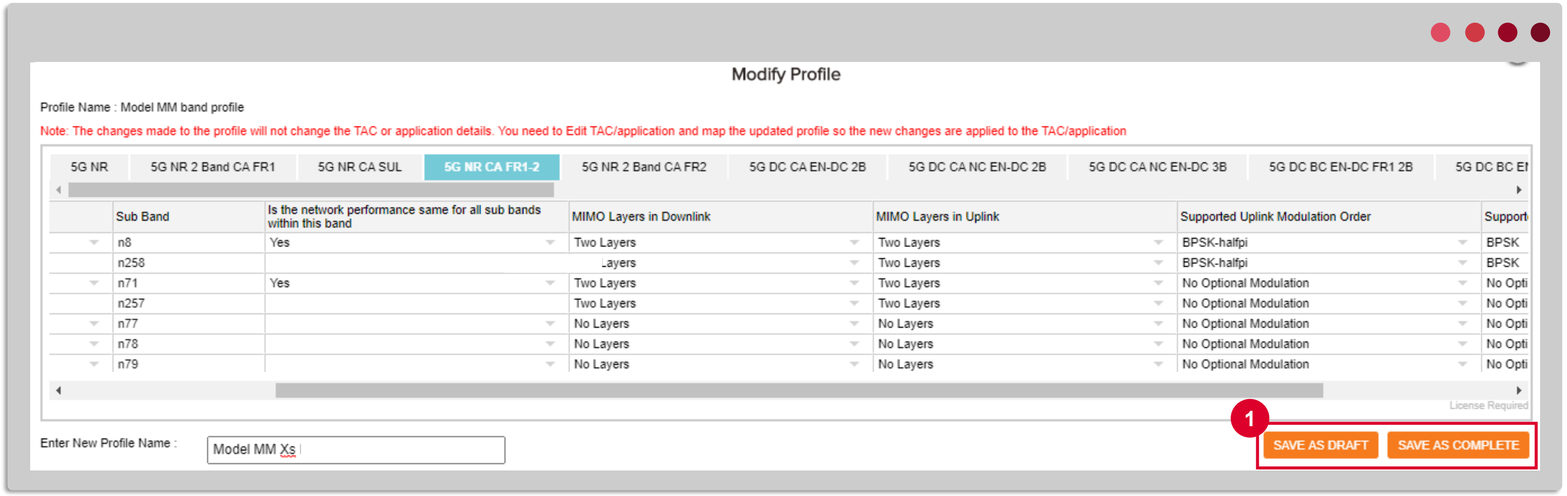




Modify Band Profile options

Once the modified profile is saved with the new name, the system creates a new profile. The previous and new profile will be active both.

1. Use the **SAVE AS DRAFT** and **SAVE AS COMPLETE** functions in the same way described for “Create Profile”.



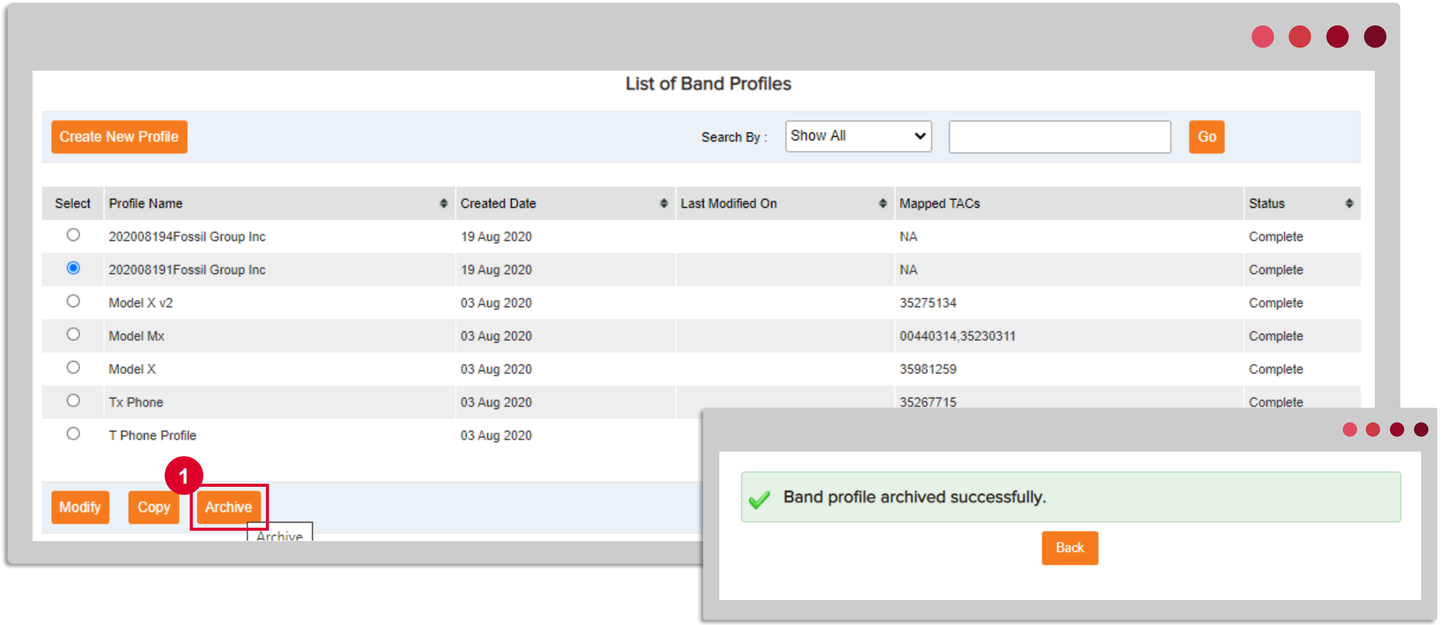
How to Archive a Band Profile

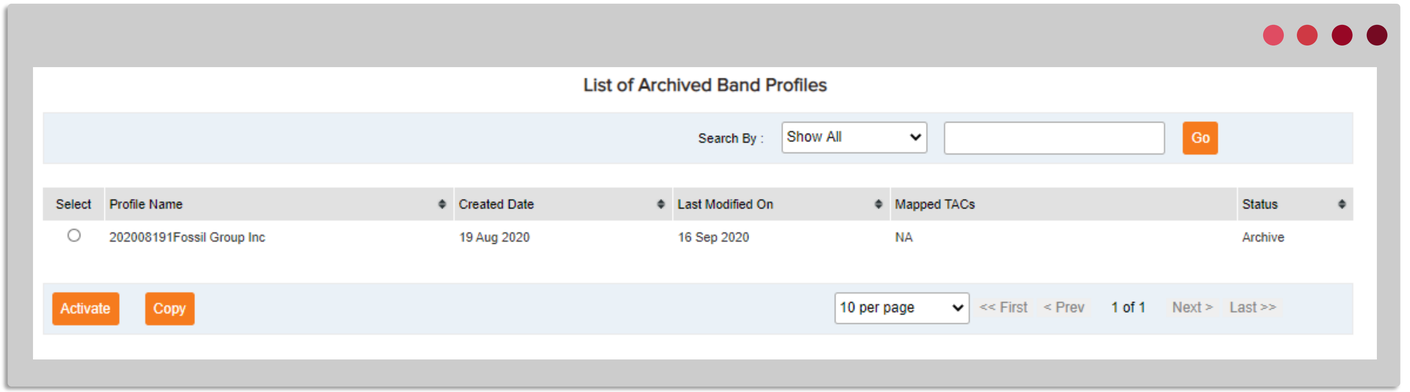
Archiving a Band Profile will not impact the TAC which it has already been successfully mapped to

Band Profiles no longer needed for new devices (TAC applications) can be **archived**. Archiving a Profile will remove it from the List of Band Profiles so it will not be listed as available under Band Profiles in the TAC application.

To view the archived profile, return to the left navigation and select List Archived Profiles.

1. Select the Band Profile from the List and **click 'Archive' button**, you will receive a successfully archived message.

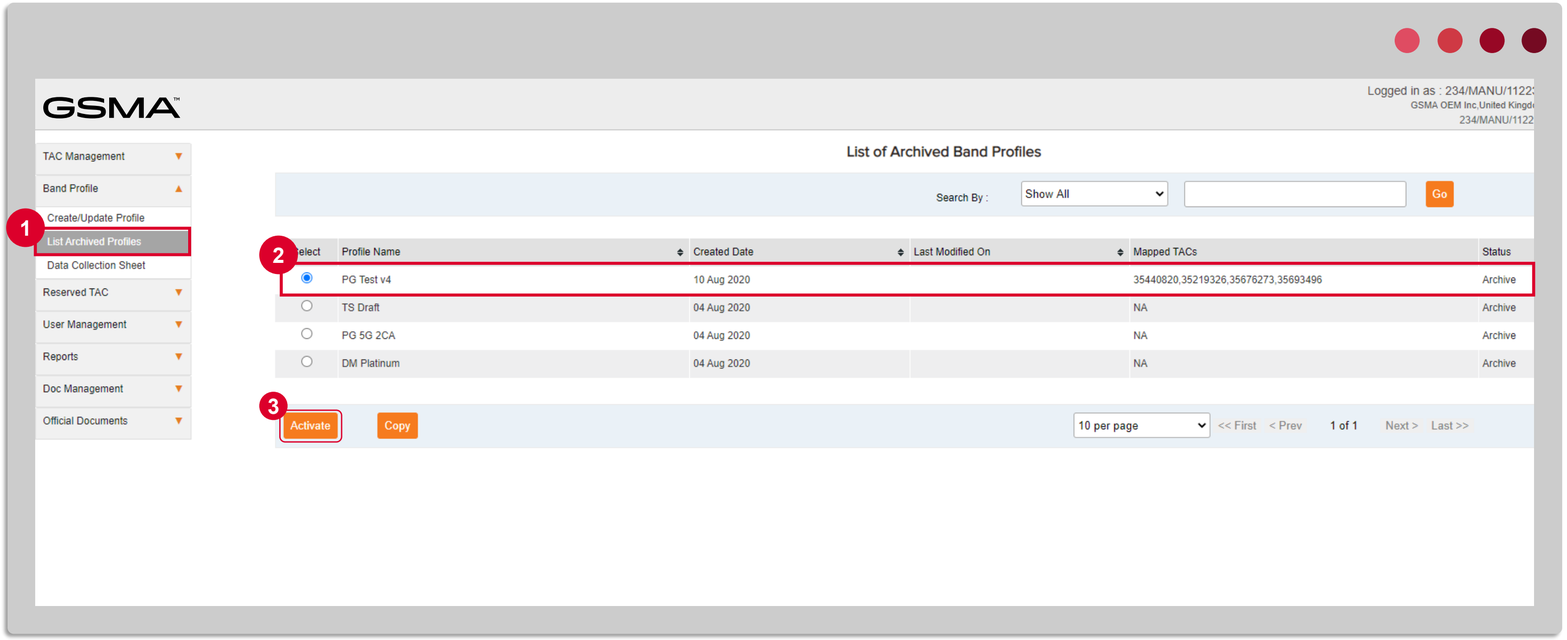




Activating an Archived Profile

Archiving a Band Profile will not remove or impact any of the TACs mapped to the Profile, but it will mean the Profile is not available for attaching to new or edited TAC applications and it will be removed from the main dashboard, to reduce clutter.

To change the Archive status, select the ACTIVATE button. The profile will now be active and re-appear on the main dashboard and be available for attaching to TAC applications.



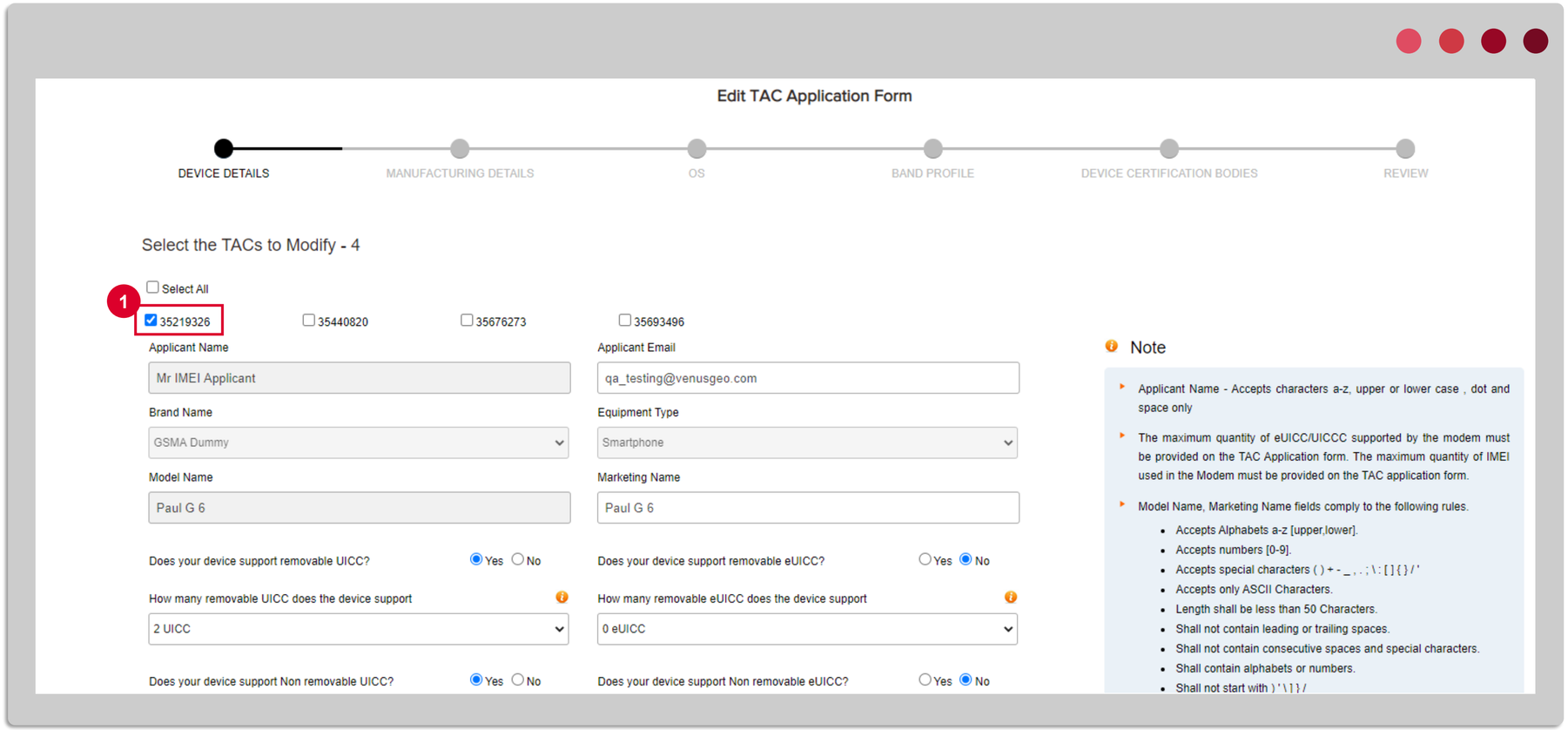
1. To activate a profile that has been archived, navigate to the List of Archived Profiles
2. Select the profile you wish to activate
3. Click activate

Edit allocated TAC after you have completed a Band Profile modification

You must complete a edit TAC application and attach the modified or new Band Profile in the application process.

Select affected TACs within the application or select the specific TAC that should be updated to reflect the new Band Profile information.

You can also update other details of the TAC in addition to attaching a new band profile.



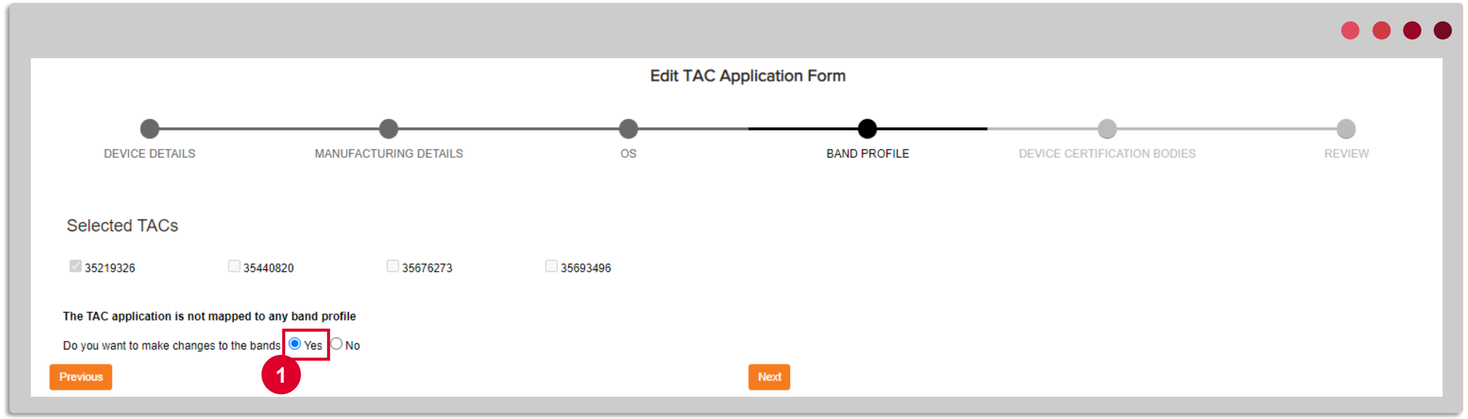
1 Select only the TACs whose information need to change

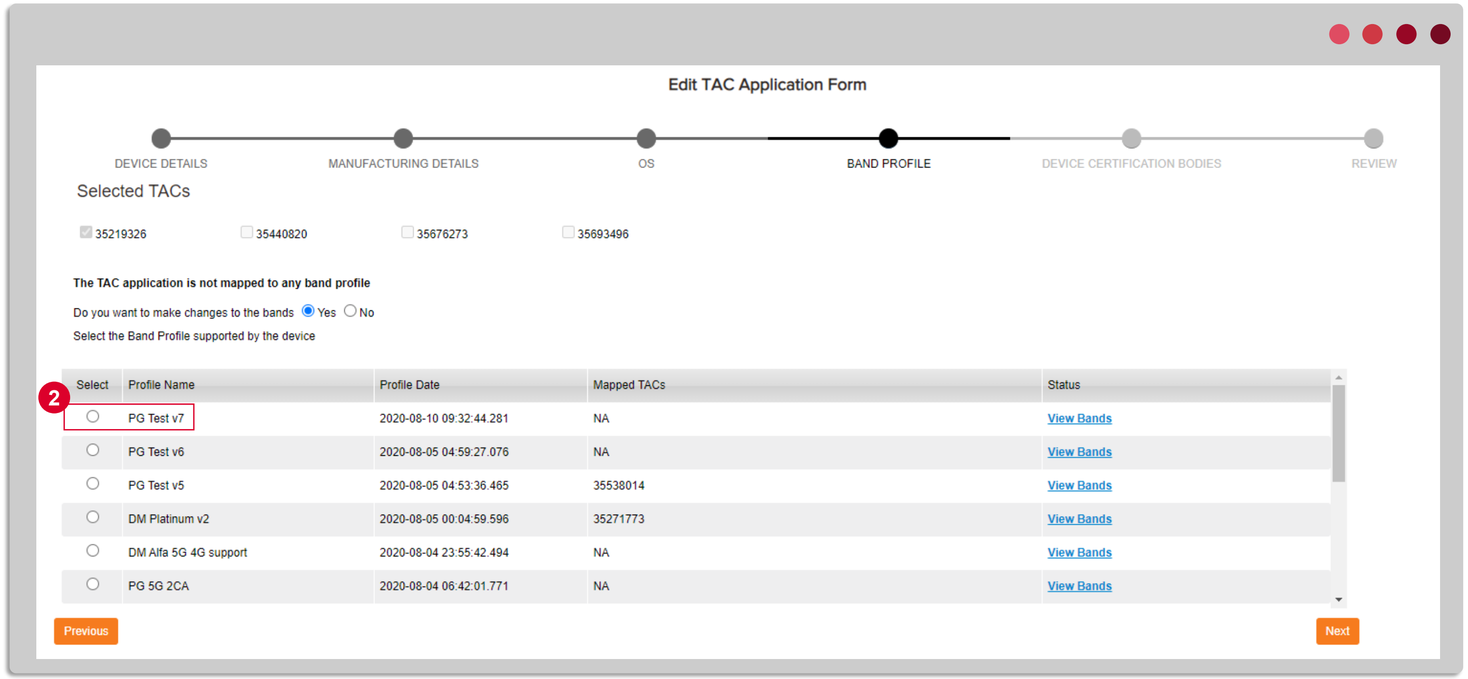
Edit TAC

Go to the **Band Profile section, indicate ‘Yes’ to change the Band Profile** for the relevant TAC(s)

The list of available Band Profiles will be listed. **Indicate the band profile** that needs to be attached/adjusted to the relevant TAC(s)

1. Indicate Yes to attach a new Band Profile
2. Indicate the Band Profile from the list of available profiles



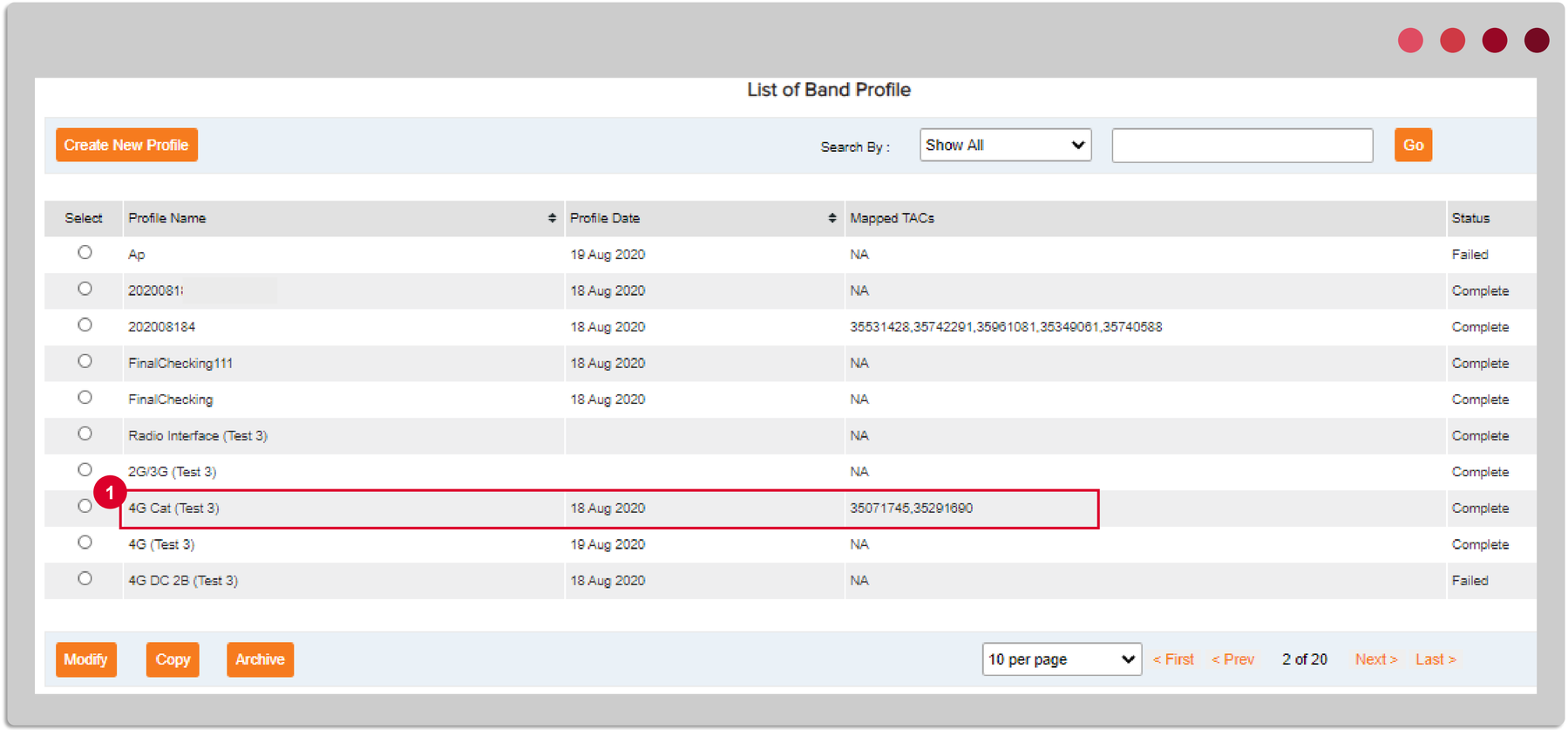


Edit TAC

Complete the other details of the Edit TAC application and submit.

The Edit application will then be processed. Once approved, the new TAC certificate will be sent to the email of the registered main contact.

In the List of Band Profile you will then see the new band profile mapped to the selected TACs in the Edit application.



1 The two TACs selected in Edit TAC are now mapped to a different band profile

This document is part six of six TAC training modules

1. TAC and IMEI Rules
2. Registering your company for TAC allocation
3. Buying TAC Credit
4. **Prepare and upload your Band Profile**
5. Completing the TAC Allocation Request Form
6. TAC for IoT Manufacturers

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GSMA TAC Allocation Service

www.gsma.com/tac

TAC support:
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+1 408 617 8959