TAC Allocation Process for India

Version 5.0

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1 History of TAC Allocation

The IMEI number allocations were originally administered and funded by a number of national authorities as part of the type approval of mobile devices. In 1999, the type approval regime was abolished as a European regulatory obligation and this required industry to establish an alternative device certification program and a means to allocate identifiers to mobile devices. In April 2000 the GSMA was asked by industry stakeholders to assume responsibility for allocating IMEI number ranges, and Type Allocation Codes, to mobile device manufacturers.

The GSMA was formally appointed by the industry as the Global Decimal Administrator (GDA) in 2004 with responsibility for:

- Appointing regional bodies to allocate TAC/IMEI ranges
- Maintaining lists of allocated TACs/IMEIs
- Distributing lists of allocated ranges via IMEI Database
- Provide expertise and advice on allocations

The GSMA is the only appointed allocation authority for both 3GPP and 3GPP/3GPP2 compliant devices. The TIA can only allocate TAC for 3GPP/3GPP2 compliant devices only.

2 Introduction

This document outlines the principles applicable to the allocation of International Mobile Equipment Identity (IMEI) numbers within India and should be read in association with TS.06 IMEI Allocation and Approval Process. The following areas which differ from TS.06 are covered:

- Manufacturer registration requirements
- Allocation process for TAC/IMEI

2.1 Definition of Acronyms

Acronyms	Description
3G	3rd Generation Networks
3GPP	3rd Generation Partnership Project
3GPP2	3rd Generation Partnership Project 2
CEIR	Central Equipment Identity Register
EIR	Equipment Identity Register
GHA	Global Hexadecimal Administrator
IMEI	International Mobile Equipment Identity
LTE	Long-term Evolution, also known as 4G
M2M	Machine to Machine
ME	Mobile Equipment
MEID	Mobile Equipment Identifier
NFC	Near Field Communication
OS	Operating System

Acronyms	Description
PC	Personal Computer
RAT	Radio Access Technology
SMS	Short Message Service
TAC	Type Allocation Code
TIA	Telecommunications Industry Association
UE	User Equipment
UMTS	Universal Mobile Telecommunications System
(U)SIM	Universal Subscriber Identity Module
WLAN	Wireless Local Area Network

3 International Mobile Equipment Identity (IMEI)

The International Mobile Equipment Identity number (IMEI) uniquely identifies an individual mobile device. The IMEI is unique to every ME and thereby provides a means for controlling access to GSM networks based on the ME model or individual units.

The “IMEI” consists of a number of fields totalling 15 digits. All digits have the range of 0 to 9 coded as binary coded decimal. Values outside this range are not permitted.

Some of the fields in the IMEI are under the control of the “Reporting Body”. The remaining serial number field is under the control of the Type Allocation Holder.

For the IMEI format prior to 01/01/03 please refer to TS.06 Annex D and the IMEI format valid from 01/01/03 please refer to TS.06 section 5

4 Reference Documents

Document Number	Title
3GPP2 SC.R4001-0	Global Wireless Equipment Numbering Administration Procedures document regarding Multi RAT (Radio Access Technology)
3GPP2 SC.R4002-0	GHA Global Hexadecimal Administrator Assignment Guidelines and Procedures
3GPP TS 02.07	Mobile Station (MS) Features
3GPP TS 02.09	Security aspects
3GPP TS 02.16	International Mobile Station Equipment Identities (IMEI)
3GPP TS 02.30	Man-machine Interface (MMI) of the Mobile Station (MS)
3GPP TS 03.03	Numbering, Addressing and Identification
3GPP TS 04.08	Mobile radio interface layer 3 specification
3GPP TS 22.016	International Mobile station Equipment Identities (IMEI)
3GPP TS 23.003	Numbering, addressing and identification
CTIA PTCRB	Overview of PTCRB Mobile/User Type Certification (includes IMEI control

Document Number	Title
NAPRD03	sections)
ISO/IEC 7812	Identification of issuers
RFC2119	http://www.ietf.org/rfc/rfc2119.txt
TS.06	GSMA PRD IMEI Allocation and Approval Process
TS.30	GSMA PRD TAC/IMEI Database application forms
TS.37	GSMA PRD Requirements for Multi SIM Devices
SGP.21	GSMA PRD Remote SIM Provisioning Architecture
SGP.22	GSMA PRD Remote SIM Provisioning Technical Specification

5 TAC (IMEI) Usage Rules

The following requirements must be adhered to:

a) Each ME Model must have its own TAC. One ME Model will have one or more TAC

b) Modular Equipment may use an interchangeable transceiver module to allow it to operate in alternative GSM bands. Such equipment is to treat each transceiver module as a separate ME. This means that each transceiver equipment module would be subject to Type Allocation and be allocated a separate IMEI/TAC. The IMEI shall not be duplicated in separate transceiver equipment.

c) Requirements for a device containing multiple transceivers:
   - If a device contains two or more transceivers, each transceiver must be separately identified on networks.
   - If two or more transceivers within the same device are identical (e.g. same chipset, same frequency bands, same control software), then each transceiver can use the same TAC, but different IMEI.
   - If the transceivers are different (e.g. different chipset, different frequency bands, different control software), then the transceivers must have different TACs.

d) A single transceiver may be connected to one or several UICCs/eUICCs. If only one (U)SIM on one of the connected UICCs/eUICCs can be used to connect to the network at any time then only one IMEI is required. If more than one (U)SIM can be connected at the same time to a transceiver, for example in Stand-by Mode, the transceiver shall have multiple, unique IMEIs so that all (U)SIMs, that are connected at the same time, will use a separate, unique IMEI.

e) For devices with:
   - Multiple SIMs which are all Active at the same time (have simultaneous connections to the network) each SIM must use a separate, unique IMEI.
   - Multiple SIMs where some SIM(s) are in Standby Mode (only listening on the network) each SIM must use a separate, unique IMEI

- Multiple SIMs which are all Passive (only one can connect to the network at any time and the connection is switched between the SIM) only one IMEI is required to be allocated to the transceiver.

f) If the transceivers are different (e.g. different chipset, different frequency bands, different control software), then the transceivers must have a different TAC, and the SIM(s) associated with that transceiver would have an IMEI from the same TAC.

Each transceiver shall have enough unique IMEIs so that all (U)SIMs that are connected at the same time can use separate, unique IMEIs

g) All TAC (IMEI) numbers allocated by the Reporting Bodies are stored in the GSMA IMEI Database. The database is used to populate the White List which is used by network operators. For confidentiality reasons, access to the IMEI Database is restricted. A type allocation holder registered in the IMEI Database can request a list of those TAC (IMEI) numbers allocated to them. Network operators can access all of the IMEI data for the purposes of monitoring IMEI numbers on their networks.

h) Before applying for a TAC (IMEI) number, the applicant company must first be registered with a reporting body. Evidence must be provided with the application to ensure:
   - That the applicant (i.e. Brand Owner) is a legitimate organization and is selling a product that is designed to connect to and function on the telecoms network,
   - For modem manufacturers, the manufacturer must request the TAC as these modems may go into many different devices. In all other cases it should be the Brand Owner who requests the TAC.

i) The following Equipment Types are listed on the TAC application form:-

   - Mobile / Feature Phone - A device supporting basic personal communication services, e.g. voice call and SMS. (Not strictly limited to basic services, but not a device that would fall within the definition of a Smartphone).

   - Smartphone - A device with a large display, predominantly with touch screen technology, fast processor and memory in the GB range. A fully-featured OS / platform that provides voice and data communications capabilities, enables personalisation of the device by the user and in addition supports installation and maintenance of mobile applications downloadable from an application store.

   - Tablet - A device with a display of minimum 5 inches in size, slate-type form factor, touch screen, providing data communications and/or voice capabilities, fully-featured OS providing connection to an application store through which the user can personalise the device’s functionality and services.

   - Dongle - A device which can be inserted in a laptop or other computer to provide cellular network connectivity.

- Modem - A device designed for embedding in other equipment to provide cellular connection functionality.

- WLAN Router - A device that performs advanced routing functionalities and uses the cellular network as Wide Area Network interface.

- IoT Device - A device, whose main function is to allow objects to be accessed, sensed and/or controlled remotely across existing mobile network infrastructures.

- Wearable - A body worn mobile device that connects to the 3GPP cellular network directly with its own eUICC or UICC.

In addition it may have none, some or all of the following:

- A touch screen display
- Other forms of interaction such as hard or soft buttons
- Voice controls
- Sensors built in or connected to the device
- An OS, which provides voice and/or data communications capabilities on the 3GPP mobile network
- Other technologies like Wi-Fi, Bluetooth
- Enables personalization of the device by the user
- Supports installation and maintenance of applications, e.g. downloadable content from an application store.

Examples of “Wearable” devices:

- Smartwatch
- Heart Monitor
- Blood Pressure Monitor
- Blood Pulse monitor
- Animal Monitoring
- Body (Arm, Leg, Chest) Sports Monitor

j) Mobile Test Platform: (Used for Test TAC Only) - A device that provides cellular connectivity for hardware and software development testing.

k) If the Equipment Type is listed on the TAC form as “Modem”, “Dongle” or “WLAN Router” then the device operating system, will be automatically checked as “None”.

l) Each application is made on a per model basis. The brand name, model name and marketing name need to be provided to identify the model.

m) The number of TAC numbers requested per application should be enough to cover a three month production run. One TAC number equates to 1 million IMEI numbers.

n) Any amendment to an existing TAC record must be made via the GSMA IMEI Database using the “Edit TAC” function.

o) Some manufacturers produce special test mobile equipment. This type of equipment can harm network integrity if used in the wrong manner. Consequently, network operators need to be able to identify such equipment. The following guidelines apply.

- Where the equipment is based on an existing ME:
  - A separate TAC code should be assigned to the Test ME to distinguish it from the Type Accredited mobile equipment.
  - Alternatively, a Test IMEI could be allocated to this type of ME if it is supplied to operators for test purposes only and not available commercially.
  - Each Test ME's IMEI shall conform to the IMEI Integrity and Security provisions in TS.06 Section 7.

p) Where GSM equipment is capable of operating in multiple modes the following guidelines apply.
  - The Reporting Body shall inform the GSMA of the multimode capability of the ME and indicate the capable modes.
  - Where the standards permit, the same IMEI shall be used for each mode of operation. Where the standards do not permit the use of IMEI then an IMEI shall be allocated specifically to the GSM part and any applicable identification to the non-GSM part/s.
  - Where physically detachable modular techniques are utilised to provide the transceiver capability, then each transceiver module shall be treated as a separate ME. Therefore separate IMEI/TAC allocations are required if an IMEI is applicable to each module.

q) Colour variants of the same model. If different models of the same device vary in the colour of the exterior body only, then the same TAC can be used for all models. No other cosmetic variants are allowed under this exception

6 GSMA Responsibilities

Within the context of this document, the GSMA shall have the following responsibilities.

- Appoint Reporting Bodies
- Coordinate the allocation of the Reporting Body Identifier.
- Maintain a list of Type Allocated GSM Mobile Equipment and TAC allocations by Reporting Bodies containing details of TACs, manufacturers, models and band/mode capability for all TAC allocated by Reporting Bodies.
- Ensure integrity of IMEI Database white, black and grey list information and update white list with new TAC allocations according to the conditions of section 10.
- Ensure integrity of IMEI Database processes.
- Maintain a list of contacts for issuing test IMEIs.
- Document and maintain the procedures to be followed by Reporting Bodies for notification of allocated TAC.
- Provide expertise and advice on Allocation and IMEI issues where appropriate.

7 TAC Details Challenge Process

See TS.06 TAC Allocation Process

8 Reporting Body Responsibilities

Within the context of this document the Reporting Bodies shall have the following responsibilities with respect to TAC allocation:

- Ensure that the requirements for Type Allocation as outlined in section 6.0 are satisfied.
- Allocate TAC codes for mobile equipment within their jurisdiction as required.
- Coordinate with other Reporting Bodies where the equipment requiring Type Allocation is under the jurisdiction of more than one Reporting Body.
- Reporting Bodies must allocate the TAC from within the GSMA IMEI Database however if this is not possible then they must inform the GSMA of new TAC allocations providing the following information:
    - TAC
    - Brand Name, Marketing Name and Model Name
    - Manufacturer
    - Frequency Bands supported by the devices
    - Designation Type
    - Allocation Date
    - Radio Interface
    - Operating System
    - Support for NFC (Y/N)
    - Support for Bluetooth (Y/N)
    - Support for WLAN (Y/N)
    - Any additional information to the Type Allocation status.

If this information is not already in the GSMA IMEI Database then it must be provided to the GSMA as soon as possible after granting TAC to avoid delays in connecting the equipment to networks using an Excel template supplied by the GSMA this can be obtained by contacting imeihelpdesk@gsma.com

9 Type Allocation Holder Responsibilities (Brand Owner / Manufacturer)

Within the context of this document Type Allocation holders have the following responsibilities:

- Comply with the relevant Type Allocation requirements.
- Complete all information requested in the GSMA IMEI Database concerning company registration and TAC requests.
- Ensure IMEIs are securely implemented and their integrity can be relied on.
- Consider recommendations to increment SVN for new software in ME.
- Apply to relevant bodies for Test IMEIs when required.
- Gain permission from operators to use test ME where required.

10 TAC Allocation

The process in India involves three stages for issuing TAC numbers to the Type Allocation holder.

10.1 Manufacturer Registration Requirements

Stage 1 - Registration and Verification

The Mobile Equipment (ME) brand owner and/or manufacturer will be required to complete the necessary details in the IMEI Database Registration Form and submit the form to the Reporting Body via the IMEI Database system, along with the required scanned copies of documents (*duly notarized*) applicable to the status of the applicant company.

The brand owner shall submit the required documents via the online upload process provided by the IMEI Database during the registration process. This shall also include the scanned copies of the government issued documents (marked as GD) listed below (*duly notarized*).

10.2 Documents Required for Registration

PART A: MANDATORY DOCUMENTS				
Basis - TYPE OF ORGANISTION/BUSINESS				
PURPOSE	**Company**	**Limited Liability Partnership**	**Partnership Firm**	**Proprietorship**
Knowing legal status of entity	• Certificate of Incorporation; • Certificate of Commencement of Business ; • Snapshot of Master Data of the Company as per MCA21 Portal	• Certificate of Incorporation as LLP; • Snapshot of Master Data of the LLP as per MCA21 Portal	• Certificate of registration of firm, if registered firm OR certificate of registration under Shops and Establishment Act	• Certificate of registration under Shops and Establishment Act
Constitution Document	• Copy of MOA & AOA of the Company.	• Partnership Deed certified copy	• Partnership Deed certified copy	• N.A.
Knowing the management	• List of Directors with full address and contact details • Copy of PAN Card/Aadhar card/passport of Person authorized to sign Certified Bank Statement	• Details of Partners with full address and contact details • Copy of PAN Card/Aadhar card/passport of Person authorized to sign	• Details of Partners with full address and contact details • Copy of PAN Card/Aadhar card/passport of Person authorized to sign	• Detail of Sole Proprietor with full address and contact details • Copy of PAN Card/Aadhar card/passport of Person authorized to sign

Authority to deal with GSMA	• Certified True copy of Resolution passed by the board authorizing the person	• Certified True copy of Resolution passed by the Partners authorizing the person or power of attorney duly notarised	• Certified True copy of Resolution passed by the Partners authorizing the person or power of attorney duly notarised	• Not Required if signed by Proprietor else POA (power of attorney) duly notarised
Establishing Banking credential	• Certified Bank Statement for a period not older than 2 months Copy of a scanned cancelled cheque	• Certified Bank Statement for a period not older than 2 months	• Certified Bank Statement for a period not older than 2 months	• Certified Bank Statement for a period not older than 2 months
Tax status of Entity – Income tax	• Copy of -PAN -TAN- if obtained	• Copy of -PAN -TAN- if obtained	• Copy of -PAN -TAN- if obtained	• Copy of -PAN -TAN- if obtained
Tax status for trade	• GST registration Certificate	• GST registration Certificate	• GST registration Certificate	• GST registration Certificate
Category of Entity -for incentives if any	• MSME Registration Certificate	• MSME Registration Certificate	• MSME Registration Certificate	• MSME Registration Certificate
For International trade	• Copy of Importer - exporter Code (IEC)	• Copy of Importer - exporter Code (IEC)	• Copy of Importer - exporter Code (IEC)	• Copy of Importer -exporter Code (IEC)
For ascertaining brand	• Brand Registration Certificate, or proof that the Brand Name is in the process of being registered.	• Brand Registration Certificate, or proof that the Brand Name is in the process of being registered.	• Brand Registration Certificate, or proof that the Brand Name is in the process of being registered.	• Brand Registration Certificate, or proof that the Brand Name is in the process of being registered.
For all types of businesses				
For Quality standards	• ISO9001:2000 quality system Certification			

10.3 Verification Process

10.3.1 Online Verification

The received documents will be checked against various government owned websites and online resources to ensure the authenticity of the TAC applicant company and the verification of the company principals.

Stage 2 - Taxation Requirements

The GSMA levies an administration charge for the allocation of TACs, as detailed in the Terms & Conditions, for more details please refer to section 11.3 of GSMA PRD TS.16. The Indian authorities require companies registered in India to pay tax on the charges collected,

this tax must be added to the charges detailed in the Terms & Conditions. Tax required shall be paid to the Indian Government and not provided to the GSMA.

11 TAC/IMEI Allocation Process

11.1 TAC Allocation Documentation

The TAC applicant is required by the GSMA to sign the GSMA TAC Allocation Terms and Conditions and complete the Technical Specification form also referenced as the TAC Application Form.

11.2 TAC Application Form

All fields must be completed on the TAC Application form of which shall be completed via the IMEI Database Web Portal for each model the TAC applicant requires TAC.

11.3 GSMA TAC Allocation Terms and Conditions

TAC applicants are required to sign, stamp and submit the formal agreement (duly notarized) and have it signed by a company Director and stamped with the company seal. Once completed, a scanned copy shall be provided via email to the imeihelpdesk@gsma.com. Upon submission the GSMA will review and confirm that the Terms and Conditions have been properly signed and stamped prior to allowing further actions of TAC allocation.

Stage 3 – Payment

After submitting the necessary documentation and after it has been checked and verified by the Reporting Body, the TAC applicant must pay the appropriate TAC Allocation Charges as mandated by the GSMA TAC Allocation Terms and Conditions.

The TAC applicant shall select the number of TAC credits they wish to purchase via the IMEI Database Web Portal. Following the submission the IMEI Database system will generate an invoice which will be delivered to the main contact of the TAC applicant. Only after receipt of payment of the invoice will the TAC applicant be able to commence issuing TAC.

12 Reporting Body for India

The GSMA reporting body for India is TUV SUD (BABT):-
TUV SUD BABT

Mr. John Talbot
Tel. +44 1932 251264
Fax: +44 1932 251201

E-mail: imei@babt.com

13 References

The GSMA have developed and made available training materials to guide you through the GSMA TAC allocation rules and GSMA IMEI Database processes. These training guidelines can be accessed via the IMEI Database home page and further assistance can be obtained by emailing imeihelpdesk@gsma.com.

Document Management

Document History

Version	Date	Brief Description of Change	Approval Authority	Editor / Company
1.0	28th October 2010	New PRD (DG 16).	DAG#74 & EMC #87	P. Gosden / GSMA
1.1	2nd December 2010	Document number changed from DG.16 to TS.16 Document owner changed from DG to TSG	TS01	P. Gosden / GSMA
2.0	March 2014	Brought into line with new TAC request form & changes to TS.06	TSG	Paul Gosden / GSMA
3.0	04 September 2018	Brought into line with changes to TS.06 as per TS.16 CR1003	TSG	Paul Gosden / GSMA
4.0	April 2019	MSAI removed as the Reporting Body	TSG	Tyler Smith GSMA

Other Information

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