

Inviting Public comments on Draft Guidelines for Registration Process of M2M Service Providers (M2MSP) & WPAN/WLAN Connectivity Provider for M2M Services

DoT has prepared Draft Guidelines for Registration Process of M2M Service Providers (M2MSP) & WPAN/WLAN Connectivity Provider for M2M Services

It is requested to provide your considered comments/suggestions by 1st July 2021 on the draft guidelines in the following proforma:

Para no.	Addition/deletion/modification (Text of the suggested modification shall be inserted)	Remarks, if any

Comments/Suggestions shall be sent on email-id: adgnt2-dot@gov.in and dirnt3-dot@nic.in

**Government of India
Ministry of Communications
Department of Telecommunications
(Networks and Technologies Wing)**

**Draft Guidelines
for
Registration Process of
M2M Service Providers(M2MSP)
&
WPAN/WLAN Connectivity Provider
for M2M Services**

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DRAFT

CHAPTER I DEFINITIONS

The terms used in this document, unless the context otherwise requires, have the following meaning:

- a) **“Applicant”** means either M2M Service Provider (M2MSP) or WPAN/WLAN Connectivity Provider who is applying for the registration under these guidelines.
- b) **“Authority”** means Department of Telecommunications or its designated field units.
- c) **“License”** means a License granted or having effect as if granted under section 4 of the Indian Telegraph Act 1885 and Indian Wireless Telegraphy Act 1933.
- d) **“Licensee”** means a registered Indian Company that has been awarded License to provide service(s) authorized under the License, within the geographical boundaries of the specified Service Area.
- e) **“LPWAN”**: Low Power Wide Area Networks (LPWAN) is a new type of WAN that is suited for M2M communication because of characteristics that render themselves more compatible.
- f) **“Machine to Machine (M2M) Communication”** refers to a communication between two or more entities (object/devices/things) based on existing & evolving communication technologies that do not necessarily need any direct human intervention.
- g) **“M2M Services”** means the services offered through a connected network of objects/devices, with identifiers, in which Machine to Machine (M2M) communication is possible with predefined back end platform(s) either directly or through some gateway.
Explanation: M2M services involve communication of end device/ object with predefined back end platform(s) either directly or through some gateway. Examples of M2M services include fleet management, supply chain management, agriculture automation, smart utilities including power, water, gas etc. The M2M end devices/ objects and the platform(s) collecting and analyzing information from these devices/ objects are controlled by some organization
- h) **“M2M Service Provider” (M2MSP)** is an Indian company, registered under the Indian Companies Act, 2013 or an LLP (Limited Liability Partnership)

registered under LLP Act, 2008 or a partnership firm or an organization registered under Shops and Establishment Act or a Legal Person which provides M2M services to **third parties** using telecom resources. *However, any organization which intends to provide M2M services for its own use (captive use) and not for commercial purpose, shall not be covered under this definition.*

- i) **“Other Service Provider” (OSP)** is an Indian company, registered under the Indian Companies Act, 2013 or an LLP (Limited Liability Partnership) registered under LLP Act, 2008 or a partnership firm or an organization registered under Shops and Establishment Act or a Legal Person providing voice based Business Process Outsourcing (BPO) services.
- j) **“Telecom Resource”** means Telecom facilities provided by telecom licensees having valid license under Indian Telegraph Act, 1885 and used by the M2MSP & WPAN/WLAN Connectivity Providers including, but not limited to Public Switched Telecom Network (PSTN), Public Land Mobile Network(PLMN), Integrated Services Digital Network (ISDN), Leased Lines to carry traffic, the telecom bandwidth etc
- k) **“Third Party”** means an individual or organization other than the Department of Telecommunications (or its designated field units), Applicant and the Telecom Licensee.
- l) **“WPAN”**: A Personal Area Network (PAN) is a network used for data transmission among personal devices such as computers, phones, personal digital assistants, wearables, etc. Wireless PAN or WPANs can be used for communication among the personal devices (intra-personal communication), or for connecting to a higher level network and the Internet (an uplink). Technologies used in PAN are Bluetooth, Z-Wave, ZigBee, RFID etc.
- m) **“WLAN”** means a wireless network whereby a user can connect to a local area network (LAN) through a wireless (radio) connection, as an alternative to a wired local area network. An example of a Wireless LAN is Wi-Fi.
- n) **“WPAN/WLAN Connectivity Provider”** is an Indian company, registered under the Indian Companies Act, 2013 or an LLP (Limited Liability Partnership) registered under LLP Act, 2008 or a partnership firm or an organization registered under Shops and Establishment Act or a Legal Person which uses WPAN/WLAN technologies for providing M2M connectivity for commercial purposes, operating in unlicensed spectrum. *However, any organization which intends to use WPAN/WLAN for M2M connectivity for captive, non- commercial use, shall not be covered under this definition.*

CHAPTER II GENERAL TERMS & CONDITIONS

1. M2MSP Registration may be granted to any Company registered under Indian Companies Act-2013, as amended from time to time or any LLP (Limited Liability Partnership) registered under LLP Act-2008, as amended from time to time or a partnership firm or an organization registered under Shops and Establishment Act or a Legal Person to provide M2M Services who fulfils the terms and conditions prescribed by the Authority.
2. WPAN/WLAN Connectivity Providers Registration may be granted to any Company registered under Indian Companies Act-2013, as amended from time to time OR any LLP registered under LLP Act-2008, as amended from time to time or an organization registered under Shops and Establishment Act or a Legal Person to provide connectivity for M2M services who fulfils the terms and conditions prescribed by the Authority.
3. Applicant shall submit the Certificate of Incorporation at the time of registration.
4. Applicant shall not infringe upon the jurisdiction of any Authorized Telecom Licensee and they shall provide only those services for which this registration is granted to them.
5. In case any authorized Telecom Licensee wishes to provide M2M Services to third parties, it also needs to register as M2MSP. In case any authorized Telecom Licensee / M2MSP wishes to provide connectivity for M2M services to third parties, it also needs to register as WPAN/WLAN Connectivity Providers.
6. Connectivity provider using LPWAN technologies operating in unlicensed spectrum shall be covered under licensing through a new authorization under UL namely UL (M2M). The details of UL (M2M) shall be issued separately by DoT. In case these licensees i.e UL(M2M) intends to provide M2M Services or WPAN/WLAN Connectivity for M2M Services to third parties, it also need to register as Applicant.
7. Applicant shall provide the details of location of their IT setup/ core network at the time of registration. However, if there are any changes in location of their IT setup/ core network at a later point of time, the same shall be intimated to the Authority within 5 days of shifting the operation to the next location.
8. A **non-refundable processing fee of Rs. 5,000/-** is payable along with the application form for registration in the form of online payment or a demand

draft from a scheduled bank in favor of the concerned Accounts Officer of designated Authority.

9. Applicant shall inform the Authority, with supporting documents, if there is change in the name or address or contact details of the company as stated in the performa submitted at the time of registration.
10. Applicant shall intimate to the Authority within 30 days, if there is any change in the designated partners, authorized signatory and/ or Agreement.
11. The registration certificate shall be issued online within 15 days of the submission of the application form complete in all respects and the applicant Company/LLP shall be informed accordingly by the Authority.
12. The registration certificate issued to the Applicant shall be non-transferrable.
13. The Authority reserves the right to suspend the operation of this Registration at any time, if, in the opinion of the Authority, it is necessary or expedient to do so in public interest or in the interest of the security of the State or for the proper conduct of the Telegraphs. The Authority shall issue a show cause notice of 21 days to the applicant prior to such suspension. However, if situation so warrants, it shall not be necessary for the Authority to issue a notice for seeking comments of the applicant for this purpose and the decision of the Authority shall be final and binding. The Authority shall not be responsible for any damage or loss caused or arisen out of aforesaid action.
14. Applicant may surrender the Registration, by giving notice to the Authority of atleast 60 calendar days in advance.
15. Breach of non-fulfillment of Registration conditions may come to the notice of the Authority through complaints or as a result of the regular monitoring. Wherever considered appropriate, Authority may conduct an inquiry either suo-moto or on complaint to determine whether there has been any breach in compliance of the terms and conditions of the Registration by the Applicant and upon such inquiry the Applicant shall extend all reasonable facilities and shall endeavor to remove the hindrance of every type.
16. Any dispute, with regard to the provision of Service shall be a matter only between the aggrieved party and the Applicant, who shall duly notify this to all before providing the Service. And in no case, the DoT shall bear any liability or responsibility in the matter. Applicant shall keep the DoT indemnified for all claims, cost, charges or damages in the matter.

CHAPTER III TECHNICAL CONDITIONS

1. M2MSP shall take the Telecom Resources from an Authorized Telecom Licensee having valid license under Indian Telegraph Act, 1885. In addition, M2MSP is authorized to use WPAN/WLAN technologies in unlicensed spectrum/frequency exempt band to provide M2M services. In case of use of WPAN/WLAN technologies in unlicensed spectrum/frequency exempt band, the network has to mandatorily connect to licensed telecom operators network for backhaul connectivity.
2. WPAN/WLAN Connectivity Providers is authorized to use WPAN/WLAN technologies in unlicensed spectrum/frequency exempt band to provide connectivity for M2M services. The WPAN/WLAN Connectivity Providers network has to mandatorily connect to licensed telecom operators network for backhaul connectivity.
3. Applicant shall adhere to Know Your Customer (KYC) and related guidelines issued by the Authority to Telecom Licensees from time to time for all Telecom resources including SIM enabled devices. The Authority reserves the right to call for such details as and when required.
4. The details of all the customers of M2M services i.e., physical custodian of machines fitted with SIMs, shall be maintained by M2MSP. Up-dated information regarding (a) details of M2M end device i.e. IMEI, ESN etc., (b) Make, Model, Registration number etc. of the machines (i.e. Cars, Utility Meters, POS etc.) & (c) corresponding physical custodian's name and address shall be made available to Telecom Licensee and designated Authority by M2MSP. Any changes in customers and machines details shall be updated.
5. Applicant shall provide the details of Telecom Service Provider from which SIMs are taken for providing M2M Services. In case of modification of details of Telecom Service Provider, same shall be intimated to the authority.
6. In future, Authority may identify critical services in M2M sector and instructions issued in this regard shall be binding on Applicant.
7. Any instructions regarding permanent international roaming issued by the government shall be binding on M2MSP. As per international Mobile Roaming Strategic Guidelines 2017 published by ITU in the case of permanent roaming, the connected devices are sold outside the country of production but uses a Subscriber Identity Module(SIM) with an international Mobile Subscriber Identity(IMSI) of the country of production (e.g. Cars, e-readers).
8. DoT vide letter no. 800-09/2010-VAS-III dated 16.05.2018 has issued the instructions permitting the use of e-SIMs with both single and multiple profile

configurations with Over the Air(OTA) subscription update facility as per prevailing Global Specifications and Standards. M2MSP shall adhere to these instructions as amended from time to time.

9. Applicant shall ensure the Quality of Service (QoS) as may be prescribed by the Authority or Telecom Regulatory Authority of India (TRAI). The Applicant shall adhere to such QoS standard and provide timely information as required therein. In the present stage of deployment of M2M devices and services, a duty cycle of 10% both at device level and network level shall be ensured.
10. Applicant shall follow the guidelines /directions/ standard operating procedures as may be prescribed for the disaster management/emergency response services or any other instruction issued by the Authority in this regard from time to time.
11. For all devices sold in India which have embedded SIM inside the device, the packaging/ instructions/ supporting leaflet shall include instruction that *“This device is having embedded SIM inside. At the time of re-sale/ loss/ transfer of this device, change of ownership details shall be shared with respective M2M Service provider/ Telecom service provider”*.

CHAPTER IV SECURITY CONDITIONS

1. Applicant shall take necessary measures to prevent objectionable, obscene, unauthorized or any other content, messages or communications infringing copyright, intellectual property etc., in any form, from being carried on the network, consistent with the established laws of the country. Once specific instances of such infringement are reported to the applicant by the enforcement agencies, the applicant shall ensure that the carriage of such material on the network is prevented immediately.
2. Applicant shall make available on demand to the person authorized by the Authority, full access to their equipments for technical scrutiny and for inspection, which can be visual inspection or an operational inspection.
3. Applicant shall provide necessary facilities depending upon the specific situation at the relevant time to the Government to counteract espionage, subversive act, sabotage or any other unlawful activity.
4. Applicant shall ensure protection of privacy of communication and data as per applicable law in force and as amended from time to time.
5. Applicant shall ensure that their equipment installations should not become a safety hazard and is not in contravention of any statute, rule or regulation and public Policy.
6. Applicant shall provide decryption facility for the content riding on its network as and when required by the Authority or any authorized agencies.
7. Applicant shall induct only those devices/equipment in the network which meet TEC standards and certifications, wherever specified as mandatory by the Authority from time to time and in the absence of mandatory TEC standard, the applicant may deploy those devices/ equipment that is certified to meet the relevant standards set by National and International standardization bodies, such as ITU, ETSI, IEEE, ISO, IEC etc. or set by International Fora, such as 3GPP, 3GPP-2, IETF, MEF, WiMAX, Wi-Fi, IPTV, IPv6, OneM2M etc.
8. The Indian Telegraph (Amendment) Rules, 2017, provides that telecom equipments must undergo prior mandatory testing and certification. Accordingly, the equipment/ devices used in M2M services shall comply with these instructions as issued by the Authority from time to time.
9. Applicant shall take all necessary steps so as to maintain security of the network & confidentiality of the data of the end user as per the Information

Technology Act, 2000 as amended from time to time. Existing security & encryption related regulation in IT Act as amended from time to time or any other rules framed in this regard should be adhered.

10. The services provided by Applicant should apply requisite security controls to protect sensitive information and data collected by various sensors and actuators. In this regard, Applicant shall comply with the provisions enshrined in Information Technology Act, 2000 and Information Technology (Reasonable security practices and procedures and sensitive personal data or information) Rules, 2011 as amended from time to time.
11. Applicant shall have a mechanism in place to isolate the network or part of the network whenever required by Authority to maintain law and order and to protect from cascading effects of failures in the system due to malicious remote execution codes, denial of service attacks, malware/spyware attacks etc.
12. Applicant shall ensure that the data logs, event logs, system logs etc. handled by the system are tamper-proof and preserved at least for one year. The Authority reserves the right to call for these logs and also inspect them at site.
13. Applicant shall ensure that M2M devices should use only genuine IMEIs & ESNs. Non-genuine, duplicate and fake IMEIs & ESNs should not be allowed in the M2M devices. The M2M devices must be identifiable and traceable on the basis of IMEI/ ESNs in the M2MSP network. The prevailing IMEIs guidelines issued by Authority for handset will be applicable in case of M2M devices as well.
14. Applicant shall adhere to the guidelines / instructions issued in respect of security by the Government from time to time. Further, the security guidelines/ instructions issued by the Authority from time to time for the Border States like J&K and NE areas, shall also be applicable for M2M services.
15. In areas which are sensitive from security point of view, as may be notified from time to time by the Authority, installation of any equipment or execution of project shall be taken up only after the Authority's approval.
16. Applicant shall adhere to the instructions issued by the Authority prescribing restrictions for provision of services in areas falling near International Border/Line of Control/Line of Actual Control of India or any other areas.

**GOVERNMENT OF INDIA
MINISTRY OF COMMUNICATIONS
DEPARTMENT OF TELECOMMUNICATIONS
SANCHAR BHAWAN, 20 ASHOKA ROAD, NEW DELHI-110 001**

**APPLICATION FORM FOR REGISTRATION OF M2M SERVICE PROVIDER (M2MSP) &
WPAN/WLAN Connectivity Provider for M2M Services**

Note: All Fields in this form are mandatory.

1. Type of Company	Company registered under Indian Companies Act-2013, as amended from time to time or LLP Act-2008, as amended from time to time or A partnership firm or an organization registered under Shops and Establishment Act or a Legal Person	
2. Name of Applicant Company/LLP		
3. CIN/LLPIN		
4. Upload certificate of incorporation		
5. Corporate Office Address:		
	Telephone:	
	Fax:	Website:
	E-Mail:	
6. Registered Office Address:		
	Telephone:	Website:
	Fax: E-mail	

7. Communication Address:			
	Telephone:		Website:
	Fax:		
E-mail:			
8. Name of Authorized Signatory:			
	Designation		
	Full address for Communication:		
	Mobile No.		
	Alternate Mobile No.		
Telephone no.(Landline)			
Fax			
Email			
9. Upload Letter of authorization			

10. Services for which authorization sought:

WPAN/WLAN M2M Services

S.No.	Name of the Service	Remark, if any

11. Choose the LSA Name where Applicant want to register for processing of their application

Note: In case of Multiple geographical area of operations, M2M Service provider may select any one LSA for registration.

12. Location of Core Network Elements

S.No.	Core Network Element Name	Location of Core Network Elements	Remark, if any

13. Spectrum Band in which M2M Services shall be provided:

Unlicensed Band Licensed Band

If Licensed Band, provide the details of media connectivity taken from authorized Licensees of DoT:

14. Do you intend to provide services using SIM Yes No

If yes, Indian Telecom Service Provider SIM

Foreign Telecom Service Provider SIM

If using Indian TSP SIM:

i) Name of Indian Telecom Service Providers:

ii) If using Foreign TSP SIM: Name of Foreign Telecom Service Provider

Name of Indian Roaming partner TSP

- Declaration:** I/we, hereby, declare that details of foreign SIM viz-a-viz IMEI, MSISDN and make of device, details of devices etc. have been declared at the port of entry.

15. Details of payment of one time (non-refundable) processing fee (Challan Copy) to be uploaded

16. Certificates/Undertakings

- i. I/We hereby certify that I/We have carefully read the guidelines/terms and conditions, for the registration under M2M Service Provider category/ WPAN/WLAN Connectivity Provider for M2M Services category and I/We undertake to comply with the terms and conditions therein as issued by DoT from time to time.
- ii. I/We understand that this application if found incomplete in any respect and/or if found with conditional compliance shall be summarily rejected.
- iii. I/We understand that processing fee is non-refundable irrespective of whether or not the proposal is registered.
- iv. I/We understand that if at any time any averments made or information furnished for obtaining the registration is found incorrect then my application and the registration if granted thereto on the basis of such application shall deemed to be cancelled.
- v. I/We undertake to intimate to the License Service Area in which it is registered for any change in the registration details, without delay to the concerned LSA. I/We would provide Unhindered access to the premises and the system(s) to the DoT Authorities for checking compliance to the terms & conditions of the guidelines.
- vi. I understand that all matters relating to the application or registration if granted to me will be subject to jurisdiction of courts/Tribunal(s) in LSA Headquarters under which the registration has been applied.

Date

Signature and name of the

Place

Authorized Signatory with Company's/LLP's seal

Appendix-A

S.No.	Licensed Service Area Name	Licensed Service Area Head Quarter Name
1	Jammu & Kashmir	Jammu
2	Punjab including Chandigarh	Chandigarh
3	Haryana	Chandigarh(Panchkula)
4	Himachal Pradesh	Shimla
5	Delhi	Delhi
6	UP(West) including Uttrakhand	Meerut
7	UP(East)	Lucknow
8	Rajasthan	Jaipur
9	Madhya Pradesh including Chattisgarh	Bhopal
10	Gujarat	Ahmedabad
11	Mumbai	Mumbai
12	Maharashtra including Goa	Pune
13	Karnataka	Bangalore
14	Kerala	Ernakulam
15	Tamil Nadu	Chennai
16	Andhra Pradesh including Telangana	Hyderabad
17	Odisha	Bhubaneswar
18	Bihar including Jharkhand	Patna

19	West Bengal including Andaman & Nicobar, Sikkim	Kolkata
20	Kolkata	Kolkata
21	Assam	Guwahati
22	North East including Arunachal Pradesh, Manipur, Mizoram, Tripura, Nagaland	Shillong

Note: While selecting LSA which are having more than one states as part of their jurisdiction, name of cities of all states as part of the LSA shall be shown in Dropdown menu.