

Government of India
Ministry of Communications
Department of Telecommunications
Networks & Technologies (NT) Wing

No. 4-10/2015-NT

Dated: 08.02.2022

OFFICE MEMORANDUM

Sub: Guidelines for Registration Process of M2M Service Providers(M2MSP) & WPAN/WLAN Connectivity Provider for M2M Services- regarding

National Digital Communication Policy- 2018 aims to create a robust digital communication infrastructure, enable next generation technologies and ensure a holistic and harmonized approach for harnessing Emerging Technologies such as M2M/IoT.

2. After considering the recommendations of TRAI on "Spectrum, Roaming and QoS related requirements in Machine-to-Machine (M2M) Communications" and views of M2M industry stakeholders, the Government has decided to issue the guidelines for 'Registration process of M2M Service Providers (M2MSP) & WPAN/WLAN Connectivity Providers for M2M Services'. The guidelines are enclosed herewith.

3. In order to address concerns like interface issues with TSP, KYC, Security and encryption, all M2M service providers utilizing telecom facilities from authorized TSPs should have M2MSP registration. All the M2M industry stakeholders are advised to go through the guidelines and take necessary action accordingly. The registration process and timeline are being issued separately.


08.02.22

(Ajay Nain)
Assistant Director General (NT-III)
DoT HQ

Encl: Guidelines for Registration process of M2M Service Providers (M2MSP) & WPAN/WLAN Connectivity Providers for M2M Services.

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

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

Contents

Chapter I: Definitions

Chapter II: General Terms & Conditions

Chapter III: Technical Conditions

Chapter IV: Security Conditions

Annexure I:

Application form for Registration of M2MSP & WPAN/WLAN Connectivity Provider for M2M Services

Annexure II:

List of specified M2M Services to be provided by M2MSP

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) “**Authorized Telecom Licensee**” means Indian Telecom Service Provider and/or Virtual Network Operator(VNO) who have been awarded License to provide service(s) authorized under the License, within the geographical boundaries of the specified Service Area.
- d) “**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.
- 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 unique 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 which provides M2M services to third parties using telecom resources. Provided that
 - (a) such third parties utilising M2M services from registered M2MSP in connection with its products or as part of its offerings to its end customers as a product or service, and

(b) any organization which intends to provide M2M services for its own use (captive use) and not for commercial purpose, shall also be covered under this definition.”

- i) **“Registrant”** means either M2M Service Provider (M2MSP) or WPAN/WLAN Connectivity Provider which has been granted a registration under these guidelines.
- j) **“Telecom Resource”** means Telecom facilities provided by Authorized Telecom Licensee 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 or Satellite connectivity 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 Authorized 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 which uses WPAN/WLAN technologies for providing M2M connectivity for commercial purposes, operating in unlicensed spectrum. *Further, any organization which intends to use WPAN/WLAN for M2M connectivity for captive, non- commercial use, shall also 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 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 a partnership firm 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. Registrant 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 can do so under current licensing framework without requiring to register for M2MSP or WPAN/WLAN Connectivity Providers.
6. Registrant 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 15 days of shifting the operation to the next location.
7. A non-refundable processing fee of Rs. 5,000/- shall be payable separately for M2MSP registration and WPAN/WLAN Connectivity Providers registration along with the application form for registration in the form of online payment.
8. Registrant 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.
9. Registrant shall intimate to the Authority within 30 days, if there is any change in the designated partners, authorized signatory and/ or Memorandum and Article of Association.
10. In case of merger/acquisition, the registration granted cease to exist and the new entity has to re-register.
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 shall be informed accordingly by the Authority.

12. The registration certificate issued to the Registrant 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 Registrant 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 Registrant 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. Registrant may surrender the Registration, by giving notice to the Authority of at least 30 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 Registrant and upon such inquiry the Registrant 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 Registrant, 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. Registrant 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. Registrant shall adhere to Know Your Customer (KYC) and related guidelines issued by the Authority to Authorized Telecom Licensee from time to time for all Telecom resources including SIM enabled devices and numbering resources. 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 Authorized Telecom Licensee and designated Authority by M2MSP. Any changes in customers and machines details shall be updated.
5. Registrant shall provide the details of Authorized Telecom Licensee from which connectivity has been sourced for providing M2M Services. In case of modification of details of Authorized Telecom Licensee, 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 Registrant.
7. Any instructions regarding permanent international roaming as notified from time to time by the government shall be binding on M2MSP.
8. DoT 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. Registrant shall ensure the Quality of Service (QoS) as may be prescribed by the Authority or Telecom Regulatory Authority of India (TRAI). The Registrant shall adhere to such QoS standard and provide timely information as required therein.
10. For all devices sold in India which have SIM inside the device, the packaging/ instructions/ supporting leaflet shall include instruction that "*This device is having 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/ Authorized Telecom Licensee.”

M2MSP shall create awareness amongst the end customers about the requirement stipulated in the clause. In case, end customer does not comply with the instructions he/she shall be liable in case of any misuse of the SIM fitted in the device.

CHAPTER IV SECURITY CONDITIONS

1. Registrant 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 Registrant by the enforcement agencies, the Registrant shall ensure that the carriage of such material on the network is prevented immediately.
2. Registrant 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. Registrant 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. Registrant shall ensure protection of privacy of communication and data as per applicable law in force and as notified/amended from time to time.
5. Registrant 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. Registrant shall provide decryption facility for the content riding on its network as and when required by the Authority or any authorized agencies. The entity who is encrypting the content shall be responsible for its decryption.
7. Registrant 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 Registrant may deploy those devices/ equipment that meet the relevant Indian 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. The entity who is inducting the devices/equipment in the network shall be individually responsible for complying the requirement stipulated in the clause.
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. Registrant 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 Registrant should apply requisite security controls to protect sensitive information and data collected by various sensors and actuators. In this regard, Registrant 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. Registrant shall have a mechanism in place to isolate the network or part of the network(sensor(s) / Device(s) / IT Setup etc.) 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. Registrant 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. Registrant 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. Registrant shall adhere to the guidelines / instructions in force and as notified/amended by the Authority from time to time in respect of security by the Government from time to time. 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.
15. Registrant shall adhere to the instructions in force and as notified/amended by the Authority from time to time 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**

**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	
2. Name of Applicant Company/LLP		
3. CIN/LLPIN		
4. Upload certificate of incorporation		
5. Corporate Office Address:		
	Telephone:	
	Fax:	
	E-Mail:	Website:
6. Registered Office Address:		
	Telephone:	
	Fax:	
	E-mail	Website:
7. Communication Address:		
	Telephone:	
	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. Note on Nature of Business/ activities proposed to be undertaken by M2MSP

14. 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 Telecom Licensee of DoT:

15. 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.

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

17. 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

List of specified M2M Services to be provided by M2MSP

1. Automotive
2. Fleet management
3. Supply chain management
4. Healthcare
5. Agriculture
6. Smart City
 - i) Street Lighting
 - ii) Waste Management
 - iii) Smart Parking
 - iv) Smart Water Management
 - v) Connected Charging Stations
7. Intelligent Transport System
8. Smart Home
9. Smart Building
10. Safety and Surveillance
 - i) Woman Safety
 - ii) Public Security
11. Portable Consumer Electronics
12. Wearable Devices
13. Financial/Retail
 - i) POS
 - ii) ATM
 - iii) Smart Kiosk
14. Smart Utilities
 - i) Smart Grid
 - ii) Gas
 - iii) Garbage Disposal
 - iv) Smart Metering
15. Any other (Please mention)