

**Government of India
Ministry of Communications
Department of Telecommunications
(Data Services Cell)**

**Wi-Fi ACCESS NETWORK
INTERFACE (WANI)
and
Framework and Guidelines for
Registration**

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Wi-Fi ACCESS NETWORK INTERFACE (WANI)

and

Framework and Guidelines for Registration

1. Introduction:

Proliferation of broadband across the length and breadth of the country is an essential ingredient of Digital India. Towards this objective, it is envisaged to leverage public Wi-Fi network for delivery of broadband services. This is sought to be facilitated by rolling out WANI infrastructure with the broadband services being provided under distributed architecture and unbundling of infrastructure to improve performance by different players under the WANI eco system.

2. What is WANI framework?

While delivery of broadband is possible through different media and technologies, under the WANI framework, it is envisaged that last mile broadband connectivity, where the consumer accesses broadband services, will be through a network of public Wi-Fi access points. The backhaul requirement for these Wi-Fi access points will be met by procuring internet bandwidth from the telecom service providers/internet service providers. Under the distributed architecture and unbundling of functions, the WANI eco-system will be operated by different players who are described herein under:

- **Public Data Office (PDO):** It will establish, maintain, and operate only WANI compliant Wi-Fi Access Points and deliver broadband services to subscribers.
- **Public Data Office Aggregator (PDOA):** It will be an aggregator of PDOs and perform the functions relating to Authorization and Accounting.
- **App Provider:** It will develop an App to register users and discover WANI compliant Wi-Fi hotspots in the nearby area and display the same within the App for accessing the internet service.
- **Central Registry:** It will maintain, in accordance with the WANI architecture and specifications, the details of App Providers,

PDOAs, and PDOs. To begin with, the Central Registry will be maintained by C-DoT.

- Wi-Fi Access Network Interface (WANI) ensures the interworking among systems and software applications used by these distributed entities i.e. PDOA, PDO, App Provider, and Central Registry.

The role and function of PDO and PDOA can be accessed on the Saral Sanchar Portal under the menu 'WANI'. A description of the flow chart of the WANI eco-system is available at Annexure 'A'. Brief details of functions of each entity are given at Annexure 'B'.

3. Terms and Conditions for registration of different entities under the WANI Framework:

- a. PDO: Any entity can be a PDO. NO REGISTRATION with DoT will be required. It will install WANI compliant Wi-Fi Access Points infrastructure in agreement with PDOA. No registration for PDO with DoT is envisaged.
- b. PDOA: It will be any company registered under the Companies Act 2013. PDOA will comply with the applicable FDI guidelines for telecommunication sector. PDOA will be registered by DoT without payment of any registration fee.
- c. App Provider: It will be any company registered under the Companies Act 2013. It will comply with the applicable FDI guidelines for telecommunication sector. App Provider will be registered by DoT without payment of any registration fee.
- d. The applicant company, for registration as PDOA or App Provider, will apply for registration with DoT on 'SARALSANCHAR' (Simplified Application For Registration and Licenses) Portal (i.e. <https://saralsanchar.gov.in/>). Sample registration form for PDOA / App Provider is enclosed as **Annexure-C**. The applicant company will provide the details of Corporate Identity Number (CIN). Till the time 'SARALSANCHAR' portal is integrated with the master data base maintained by Ministry of Corporate Affairs, applicant

company will be required to upload self-certified copy of the Company Registration issued by Registrar of Companies (RoC).

- e. The registration to PDOAs and App Providers will be granted by DoT within seven working days. The registration certificate will be automatically generated after seven working days (deemed registration).
- f. The registration for PDOA and App Provider will provide permission for pan India operations.
- g. PDOA may surrender the Registration, by giving 60 days' notice to the DoT and 30 days' notice to the associated PDOs.
- h. The registration will be subject to the conditions of relevant and applicable laws.
- i. To enable availability of data for WANI, the PDOA will provide documents and information to DoT and the Telecom Regulatory Authority of India (TRAI), as may be sought periodically.
- j. The DoT reserves the right to suspend the operation of this Registration at any time, if it is necessary or expedient to do so in the interest of the security of the State.

4. Security Conditions:

- a) PDOA shall make necessary provisions for storage of user data for one year to ensure compliance with legal provisions, as required.
- b) The user data privacy will be ensured by App Providers and PDOAs. Complete user data and usage logs will be stored within India.
- c) Subject to terms and conditions of the Registration, the App Provider, PDOA and Central Registry Provider will take all necessary steps to safeguard the privacy and confidentiality of any information about a third party to whom it provides the service.

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Flow Chart under WANI Eco-System:

As it is a novel concept, based on unbundled and distributed model, for delivery of Internet services, a typical usage flow is described below:

- a. A new User will download the App from App store and install the same on its mobile device.
- b. Thereafter this User will create its own profile in the App and register with the App provider after verifying own mobile number through One Time Password (OTP) to be received from the App Provider.
- c. To access Internet service, the User will open the App in which it is already registered.
- d. The App will discover the WANI compliant Wi-Fi Access Points in the nearby area and display the same in the App.
- e. The user will choose one Wi-Fi Access Point to connect with Internet.
- f. The chosen Wi-Fi Access Point will request the Captive Portal of PDOA for Authorization.
- g. The Captive Portal will initiate user authentication with backend infrastructure of the App Provider using the token passed from the App.
- h. App Provider will return a signed user profile token back to the PDOA.
- i. If the user is a new customer of the PDOA, then the PDOA will display the available data packs with tariff plans to the user. User will select the desired data pack. The PDOA will send request for payment to the user through its payment gateway.
- j. User will complete the payment.
- k. After receiving the payment, PDOA will register the user as its subscriber and activates the data pack for the registered user and allows it to connect to the Internet session.
- l. Now User can access the Internet.

m. In case of existing subscribers of a PDOA, if the account balance is available for a particular subscriber, step i and j will not be applicable.

Brief of the functions of each entity specified under the WANI framework:

a. PDO:

1. PDO will establish, maintain, and operate only WANI compliant Wi-Fi Access Points.
2. PDO will connect its Wi-Fi Access Point with Internet through networks of licensed Service Providers only in that area.
3. A PDO can establish multiple Wi-Fi Access Points and logically connect them with different Captive Portals of PDOAs. However, a Wi-Fi Access Point of any PDO will be logically connected with a Captive Portal of any PDOA.
4. As per the WANI framework, PDOs will have commercial agreement with licensed Telecom Service Providers (TSP) or Internet Service Providers (ISP) for internet connectivity and with PDOA for Aggregation, Authorization, Accounting, and other related functions.

b. PDOA:

1. PDOA will register with Central Registry using its public certificate for signature validation. It will also register its associated PDOs' Wi-Fi Access Points along with SSIDs and locations.
2. PDOA will aggregate multiple WANI enabled Wi-Fi Access Points being operated by individual PDOs and authorize the subscribers, authenticated by the App Provider, to access internet services.
3. For payment transactions by users, PDOA will integrate the Captive Portal with different types of digital payment service providers such as UPI, e-Wallets, Credit and Debit Cards, Online Banking etc.
4. PDOA will declare the tariff for subscribers and keep account of usage of each subscriber.
5. While PDOA will maintain the details of usage of individual subscriber at a given point of time, the internet traffic will route directly from Wi-Fi Access Point of PDO to the network of interconnecting licensed Service Provider.

6. It will be permissible for any two PDOAs to enter into a roaming agreement for permitting each other's subscribers to access Internet from any Wi-Fi Access Points associated with them.
7. All complaints of users will be addressed/ handled by the PDOA as per the orders issued by the Department of Telecommunications or its authorized representative (herein after referred to as 'DoT) from time to time.

c. App Provider:

1. App Provider will develop and maintain a software application and backend authentication infrastructure for users to signup, discover WANI compliant Wi-Fi hotspots, and do single-click connect from within the App.
2. App Provider will register with Central Registry using its public certificate for signature validation.
3. The App will allow users to create a profile and do their mobile verification using OTP.
4. The App Provider will authenticate each subscriber periodically based on some predefined algorithm.

d. Central Registry Provider:

1. The Central Registry will maintain, in accordance with the WANI framework, the details of App Providers, PDOAs, and PDOs.
2. The Central Registry will ensure interoperability among WANI Compliant Wi-Fi Access Points, Captive Portal of PDOA, and App.
3. The Central Registry Provider will certify the systems and software applications of App Provider or PDOA as per the checklist provided with WANI architecture and specifications within 10 working days after the App Provider or PDOA submit the same for certification. In case of any non-compliances with the WANI architecture and specifications in the systems and software applications of App Provider or PDOA, as communicated in writing by the Central Registry Provider, App Provider or PDOA will attend to the same within 20 working days and resubmit to the Central Registry Provider for certification.

4. The Central Registry Provider, on instructions from the DoT, will delete the details of App Providers, PDOAs, or PDOs.

e. General conditions:

1. These entities i.e. PDOA, App Provider, and Central Registry will not provide switched telephony service.
2. The PDO's Wi-Fi Access Point, PDOA's Captive Portal, App Provider's App, and Central Registry will be compliant to the architecture and specifications of WANI Framework, attached at Annexure-II.
3. Any customer authenticated by an App Provider can use any WANI compliant Wi-Fi Access Point operated by any PDO for accessing the Internet.
4. Any dispute, with regard to the provision of service will be a matter only between the aggrieved party and the App Provider or PDOA or both, who will duly notify this to all before providing the service. And in no case, the DoT will bear any liability or responsibility in the matter. The App Provider and PDOA will keep the DoT indemnified for all claims, costs, charges, or damages in the matter.
5. The App Provider, PDOA, and Central Registry Provider will abide by all the terms and conditions that may be imposed by the DoT from time to time.
6. The App Provider, PDOA, and Central Registry will be responsible for any violation of the terms and conditions by anyone including but not limited to their employees.
7. The App Provider, PDOA, and Central Registry will be responsible for the correctness of the information furnished.
8. All efforts will be made by PDOAs to deploy Indian technology (i.e. technology designed & developed in India) and Made in India Wi-Fi Hotspot Access Point equipment, through which Broadband internet services will be provided under WANI framework.
9. DoT reserves the right to take appropriate action for any violation of the terms and conditions, including cancellation of registration.

Sample Registration Form:

GOVERNMENT OF INDIA
MINISTRY OF COMMUNICATIONS
DEPARTMENT of TELECOMMUNICATIONS (Data Services Wing)
SANCHAR BHAVAN, 20 ASHOKA ROAD, NEW DELHI-110 001.

**Application Form for registration of Public Data Office Aggregator
(PDOA) / App Provider**

1. Corporate Identity Number (CIN) of Applicant Company:
2. Name of Applicant Company: _____
3. Complete postal address (with Telephone and E-mail)
 - i) Corporate Office: _____
 - ii) Registered Office: _____
4. Name of Authorized Representative (His designation and Telephone and E-mail):
5. Copy of the board resolution authorizing the Authorized Representative to apply for the registration:
6. If FDI (Foreign equity: Direct + Indirect) in the Indian Company exceeds 49% than the copy of the approval of Government of India:

Certificates:

1. I hereby certify that I have carefully read the guidelines for registration as Public Data Office Aggregator (PDOA) / App Provider and I undertake to comply with the terms and conditions therein.
2. I undertake to comply with the applicable extant laws, Rules, Regulations, Directions, and Orders, relating to establishing, working, and maintaining telegraphs, issued from time to time.
3. I 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, will be cancelled.

Date:

Place:

(Signature)

Authorized Signatory

(Company's seal)