



**F. No. S-12019/82/2020-Part (1)**

**Government of India  
National Health Authority (NHA)**

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**EXPRESSION OF INTEREST FOR DEVELOPING SELF-ASSESSMENT  
CERTIFICATION SERVICE FOR SANDBOX EXIT UNDER NATIONAL DIGITAL  
HEALTH MISSION (NDHM)**

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## 1. INTRODUCTION

1.1. In 2017, the Government of India announced National Health Policy (NHP) with the following goal: “The attainment of the highest possible level of health and wellbeing for all at all ages, through a preventive and promotive health care orientation in all developmental policies, and universal access to good quality health care services without anyone having to face financial hardship as a consequence.”

1.2. The NHP prescribed specific goals for adoption of digital technologies. Taking that as reference the Ministry of Health and Family Welfare constituted a committee to create an implementation framework for the National Health Stack. This effort resulted in creation of the National Digital Health Blueprint (NDHB). The Blueprint comprises the details of building blocks to fulfil the vision of the NHP and an action plan to realize digital health in a comprehensive and holistic manner.

1.3. Taking forward the NDHB, Government of India recommended setting up of a NDHM (National Digital Health Mission) by leveraging technology to set-up digital health ecosystem that supports universal health coverage in an efficient, accessible, inclusive, affordable and timely manner through provisioning of a wide range of data, information, and infrastructure services.

### 1.4. NDHM Vision

*“To create a national digital health ecosystem that supports universal health coverage in an efficient, accessible, inclusive, affordable, timely and safe manner, that provides a wide-range of data, information and infrastructure services, duly leveraging open, interoperable, standards-based digital systems, and ensures the security, confidentiality and privacy of health-related personal information”.*

### 1.5 NDHM Objectives

In order to achieve its objectives, in particular, to strengthen the accessibility and equity of health services, including continuum of care with citizen as the owner of data, in a holistic healthcare program approach leveraging IT & associated technologies and support the existing health systems in a ‘citizen-centric’ approach, the NDHM envisages the following specific objectives-

- a) To establish state-of-the-art digital health systems, to manage the core digital health data, and the infrastructure required for its seamless exchange;
- b) To establish registries at appropriate level to create single source of truth in respect of clinical establishments, healthcare professionals, health workers, drugs and pharmacies;
- c) To enforce adoption of open standards by all national digital health stakeholders;
- d) To create a system of personal health records, based on international standards, easily accessible to individuals and healthcare professionals and services providers, based on individual’s informed consent;

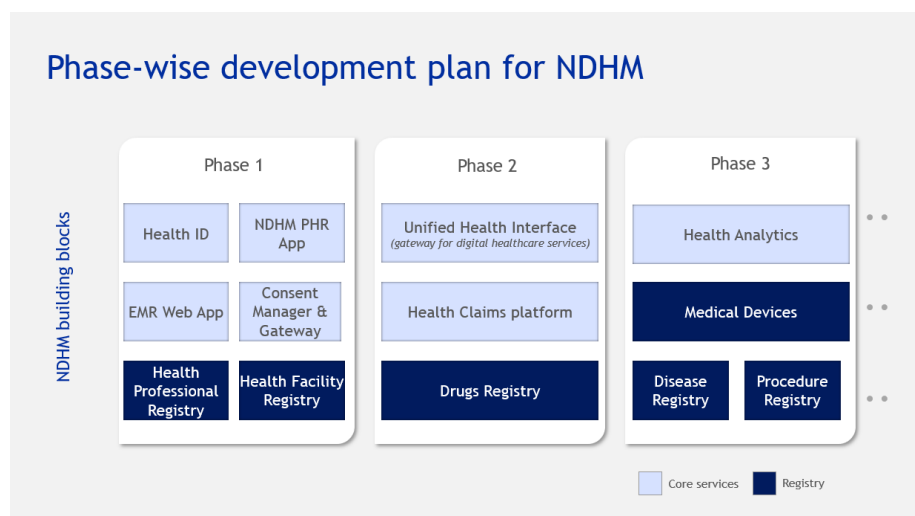
- e) To promote development of enterprise-class health application systems with a special focus on achieving the Sustainable Development Goals for health
- f) To adopt the best principles of cooperative federalism while working with the States and Union Territories for the realization of the vision;
- g) To ensure that the healthcare institutions and professionals in the private sector participate actively in the building of the NDHM, through a combination of prescription and promotion;
- h) To ensure national portability in the provision of health services;
- i) To promote the use of clinical decision support (CDS) systems by health professionals and practitioners;
- j) To promote a better management of the health sector leveraging health data analytics and medical research;
- k) To provide for enhancing the efficiency and effectiveness of governance at all levels;
- l) To support effective steps being taken for ensuring quality of healthcare; and
- m) To leverage the information systems existing in the health sector, by ensuring that they conform to the defined standards and integrate with the proposed NDHM.

For further details, please refer: <https://ndhm.gov.in/>.

### 1.6 NDHM Pilot Phase

National Digital Health Mission (NDHM) was launched during the August 15th, 2020 announcement by the Prime Minister with the aim to develop the digital infrastructure for an integrated healthcare ecosystem in the country. NDHM has marked out multiple building blocks for design and launch in a phase-wise manner.

The key phases and corresponding building blocks to be developed are as follows. Kindly note that these developments may be subject to change at NHA's discretion.



Each building block aims to create value for the patient in one or more ways as described below:

- a) Enables creation of longitudinal health history for patients in standard, digital format
- b) Builds trust in the ecosystem by creating single source of verifiable truth for healthcare entities, individuals, products and services (e.g. facilities, health professionals, citizens, drugs)
- c) Improves access and convenience in availing healthcare services by leveraging digital e.g., Unified Health Interface for healthcare services

Over the last few months, Phase I of the mission has been implemented, rolling out key building blocks in pilot mode in six Union Territories – Andaman & Nicobar Islands, Chandigarh, Dadra & Nagar Haveli, and Daman & Diu, Ladakh, Lakshadweep and Puducherry.

The building blocks designed and implemented in Phase I include:

- a) Health ID
- b) DigiDoctor (doctor registry)
- c) Health Facility Registry (HFR)
- d) Consent Manager & Gateway
- e) Reference applications like NDHM Health Records (PHR app), EMR Web app

As part of ongoing pilots, healthcare facilities (primarily hospitals, clinics, and diagnostic centers) have been integrating with NDHM APIs to develop seamless patient experiences on ground.

Healthcare ecosystem players are also building digital use-cases such as the Health Locker to provide patients the opportunity to store health records in one location permanently and securely.

These integrations follow a structured process of application development in a test “Sandbox” environment followed by exit into production.

1.7 There are four key steps today to register, integrate and exit the Sandbox environment. The process steps are applicable to all types of integrators - both public and private entities

**Step 1: Registration on the Sandbox website**

- a) Participants are requested to register on the Sandbox & provide details of their organization, point of contact and the NDHM use-cases they wish to develop (HIP/HRP/HIU/Health Locker)

**Step 2: Receiving approval to integrate in Sandbox**

- a) All applications received in Step 1 are screened by an internal NHA committee for compliance as per NDHM HIU and HIP Policy guidelines
- b) Approved applications are granted “key” to access NDHM APIs in the Sandbox environment

**Step 3: Sandbox exit post integration**

- a) Once participants have integrated with the APIs, they may intimate NDHM team to commence exit from the Sandbox
- b) Exit, especially in the Pilot phase, will be permitted if the application developed undergoes the following checks:
  - i) **Functional Testing:** NDHM has detailed a recommended patient journey to benefit the patient, healthcare facility and doctors for the pilot phase. The functional testing process maps compliance against this recommended workflow. NDHM may or may not continue testing for functional adherence beyond the pilot.
  - ii) **Web Application Security Assessment (WASA):** Assessment to identify security vulnerabilities within the application; conducted as per OWASP 10 standards (Refer: <https://owasp.org/www-project-top-ten/>) by CERT-IN empaneled agencies only
  - iii) **Final clearance by internal NHA committee:** Results of the Functional Testing and WASA are put forth before an internal committee to provide final sign off to the application
- c) “Production” key to access NDHM APIs in the live environment is provided to the participant

**Step 4: Registration on Health Facility Registry (applicable for healthcare facility participation)**

- a) Healthcare facilities, partnering with software players to develop NDHM-enabled patient workflows, are required to register on the Health Facility Registry (HFR)
- b) Only facilities who have a mapped “production key” in their HFR profile (through association with an NDHM compliant HRP) can access NDHM services in the live environment

Additional details on Sandbox, NDHM APIs and integration process can be found in relevant sections of the NDHM Sandbox website (Refer: <https://sandbox.ndhm.gov.in/> ).

## 2. SCOPE OF WORK

2.1. The National Health Authority (NHA) invites Expression of Interest (EoI) from entities to develop a **Self-Assessment Tool to automate Sandbox exit process and certify Sandbox participants as NDHM compliant** (Services provided). Please refer to Section 1.7- Step 3 for more details.

2.2. Following may participate in this Expression of Interest (EoI) process within the prescribed timelines as per section 5

- a) Entities that already offer similar automated tool-based testing service or
- b) Entities that have capabilities to develop such a service

2.3. The self-assessment certification service will be required to perform two functions:

- a) Provide an automated workflow to verify API integrations built by Sandbox participants (referred to as Health Repository Providers) in their mobile or web applications. Initially, this will include a test suite specific to certain NDHM use-cases listed below. The list of use-cases defined may be expanded as and when new developments emerge. These constructs have been explained further in Section 2.4.
  - i. **Health ID creation** and/or **Health ID sharing** during patient registration
  - ii. Building **Health Information Provider** (HIP) service
  - iii. Developing **Health Information User** (HIU) service
  - iv. Creating a **Health Locker** service
- b) Conduct Web Application Security Assessment (WASA) to assess security vulnerabilities in the external application. The security assessment shall comply to OWASP 10 standards and may be updated on an on-going basis.

Additional detail on the scope of WASA is described in Section 2.5.

The certification service needs to provide the interface to allow external applications to self-assess themselves, generate intermediate test reports and submit them to NHA for final consideration.

2.4. NDHM use-cases to be supported by self-assessment service

External applications looking to certify themselves as NDHM compliant may support all or few of the following use-cases. The certification tool should build test suites to ensure API integrations are initiating expected requests & managing responses from NDHM building blocks.

a) **Health ID creation and sharing**

- i) Includes creation of Health ID via Aadhaar (OTP/Biometric fingerprint/Face-auth) OR Mobile OTP using a modal-pop mechanism within the external application

- ii) Health ID-based authentication through available methods for the purposes of patient registration (Health ID QR code scan by facility, facility QR code scan by PHR app, Health ID verbal sharing)

Details of information flow and APIs to be integrated can be found in link: <https://sandbox.ndhm.gov.in/docs/healthid>

This NDHM use-case is typically expected to be supported by healthcare facilities, health applications offering doctor consultations etc.

**b) Building a Health Information Provider (HIP) service**

- i) Create health record for the patient post a doctor or diagnostic center consultation and share as per standard format (FHIR, encrypted).  
There are five types of records currently supported by NDHM: Prescription record, OP notes, Diagnostic reports, Discharge summary and Immunization record.
- ii) Build ability to respond to discovery requests from NDHM Consent Manager against a Health ID; post discovery enable linking of health record(s) found with the Consent Manager
- iii) Acknowledge Consent Manager requests for data and save the consent artifact
- iv) Facilitate flow of medical data against the consent artifact as per specified format (FHIR, encrypted)
- v) Intimate patients regarding availability of health record(s) – this is currently implemented through a “deep-link” SMS mechanism directing patients to a Personal Health Record app URL

Details of information flow and APIs to be integrated can be found in link: [https://sandbox.ndhm.gov.in/docs/build\\_hip](https://sandbox.ndhm.gov.in/docs/build_hip)

**c) Developing a Health Information User (HIU) service**

- i) Create a consent request as an HIU and post to patient’s Personal Health Record app. The HIU should honor the consent artifact (*for the duration for which consent is active*)
- ii) Receive medical data from Health Information Providers (HIPs) that have health records available against the concerned Health ID

Details of information flow and APIs to be integrated can be found in link: [https://sandbox.ndhm.gov.in/docs/build\\_hiu](https://sandbox.ndhm.gov.in/docs/build_hiu)

**d) Creating a Health Locker service**

- i) A Health Locker provides the patient with a permanent storage service for health records. Digital health locker plays the role of both HIP (to provide health information) as well as the role of HIU (to retrieve health information from other HIPs).

Details of information flow and APIs to be integrated can be found in link: [https://sandbox.ndhm.gov.in/docs/build\\_hl](https://sandbox.ndhm.gov.in/docs/build_hl)



## 2.5. Scope of Web Application Security Assessment (WASA)

- a) Only modules pertaining to NDHM API integrations within the external applications shall be included in the scope for the security assessment.

## 3. ELIGIBILITY CRITERIA

This section provides details on the Eligibility Criteria (Table A) on which proposal shall be evaluated.

### Important note:

- 3.1. 'Similar/Related Services' shall imply the ability to verify testing of use-cases/API integrations as well as security audit(s) of any technical process or any such relevant tasks, across any industry or organization type (public or private).
- 3.2. The "Authorized Signatory" shall mean the person authorized to sign the EoI proposal. The participant shall submit a "Power of Attorney" or "Copy of board resolution" specifying the details of the person and validity of Power of Attorney/Board Resolution to be considered as "Authorized Signatory".

| Table A: Eligibility Criteria                         |   |   |
|---|---|---|
| Sr No   | Criteria  | Document Proof Required   |
| <b>Registered legal entity and years in operation</b> |   |   |
| 1   | The participant should be:  |   |
|   | a) A company incorporated under the Indian Companies Act, 2013 <b>OR</b> any other previous company law as per section 2 (20) of the Indian Companies Act 2013 <b>OR</b> Partnership firms registered under the Limited Liability Partnerships (registered under LLP Act, 2008) | i) Profile of participant as per Form A1 and<br>ii) Copy of Certificate of Incorporation and<br>iii) Extract of Copy of Memorandum and Article of Association specifying the area of similar/related services (Refer 3.1) |
|   | b) A Company registered with the GST Authorities  | i) Copy of GST Registration certificate issued by GSTN authorities  |
|   | c) A Company registered with Income Tax Authority and have a Valid PAN number   | i) Copy of PAN Card   |
| <b>Certification</b>                                  |   |   |
| 2   | The participant should have the following valid certifications as on the date of submission of the proposal:  | i) Profile of participant as per Form A1 and<br>ii) Copy of the valid Certificate issued from   |

|  |   |  |
|--|---|--|
|  | a) STQC empanelment for API testing<br>b) CERT-IN empanelment for Information Security Audits   | the accreditation organization                                       |
| <b>Blacklisting or Banned or Defaulter</b> |   |  |
| 3  | As on date of submission of the proposal, the participant should not be blacklisted or banned by any ministry/department/attached offices/sub-ordinate offices under Government of India and any State government, autonomous bodies (established by Central/State govt), any Central/State PSUs for unsatisfactory past performance, corrupt, fraudulent or any other unethical business practices | i) Undertaking/Certificate from the Authorized signatory per Form A2 |
| <b>Conflict of Interest</b>                |   |  |
| 4  | As on date of submission of the proposal, the participant should not be involved in any conflict of interest situation.   | i) Undertaking/Certificate from the Authorized signatory per Form A3 |

#### 4. ADDITIONAL INFORMATION

4.1 Participants are required to submit other relevant details as per Annexure-III and Annexure-IV along with all the supporting documents as prescribed.

#### 5. PROPOSAL PROCESS

- 5.1. The objective of the Expression of Interest (Eoi) process is to help assess capability within the ecosystem to develop such an automated, self-assessment certification service for NDHM within the next 3-4 months.
- 5.2. Organizations with the capability to develop this service and meeting the eligibility criteria are requested to submit response to this Expression of Interest (Eoi) in standard format (detailed in Annexure I, II, III and IV) within stipulated timelines.
- 5.3. Submission of response shall be deemed to have been done after careful study and examination of this document with full understanding of its terms, conditions, and implications.

| Sr. No | Information                              | Details   |
|--------|--|---|
| 1.     | Eol No. and Date                         | S-12019/82/2020-Part (1)<br>Dated: 12 <sup>th</sup> May, 2021 |
| 2.     | Last date for submission of Eol proposal | 26 <sup>th</sup> May 2021 (by 5.00 PM IST)                    |

All participants are requested to submit proposal through e-mail in the prescribed format with relevant documents to [procurement.division@nha.gov.in](mailto:procurement.division@nha.gov.in). All pages of the proposal must be signed by the authorized signatory of the participant.

- 5.4. Participants may be invited to a virtual technical presentation to the National Health Authority (NHA) post submission of response, subject to NHA's discretion.
- 5.5. The information received in response of this Eol may be utilized by NHA to establish an empaneled network of agencies offering self-certification services for NDHM compliance to Sandbox integrators. Such self-certification services may be offered to Sandbox integrators at price(s) discovered and agreed upon during the empanelment process, which may be charged to the end customers by the participant.
- 5.6. Subsequent steps post submission of response shall be communicated by NHA as per its discretion.

## 6. GENERAL TERMS AND CONDITIONS

- 6.1 The decision of NHA will be final and binding with regards to all stages of the Expression of Interest (Eol) process. NHA reserves the right to reject all or any of the interested party or their proposals without assigning any reason whatsoever.
- 6.2 National Health Authority (NHA) reserves the right, at its sole discretion, to cancel, terminate, suspend this Eol and modify the terms. In no event shall the NHA be liable for any claims, losses, expenses, or damages, arising out of or in connection with the foregoing.
- 6.3 Participants warrant and represent that there are no obligations of any nature, legal or otherwise, which would prohibit, restrict, or interfere with their participation in the Eol process or submission of their response, and agree to obtain any necessary clearances, authorizations and/or approvals prior to participation.
- 6.4 It is also clarified that participation in this Eol does not confer any right to any of the participants for signing of agreement/MoU and/or any future contract with NHA.
- 6.5 The Participant's shall bear all costs associated with or relating to the preparation and submission of its proposals including but not limited to preparation, copying, postage,

delivery fees, expenses associated with any demonstrations or presentations which may be required by the NHA or any other costs incurred in connection with or relating to its submission.

## ANNEXURE – I: COVERING LETTER

<To be printed on Company letterhead>

Ref No.: S-12019/82/2020-Part (1)

<DD/MM/YYYY>

To

Procurement Division  
National Health Authority (NHA)  
[procurement.division@nha.gov.in](mailto:procurement.division@nha.gov.in)  
New Delhi

Subject: Expression of Interest for developing automated self-assessment certification service for Sandbox exit under National Digital Health Mission (NDHM)

Dear Sir,

This is with reference to your EoI No. S-12019/82/2020-Part (1) dated 12<sup>th</sup> May 2021.

In response to this EoI, we are submitting the following documents for consideration of NHA:

Annexure-II

Annexure-III

Annexure-IV

Supporting Documents as prescribed in Table A, Annexure III and IV

We accept all the terms and conditions specified in this EoI.

Regards

Sincerely yours,

(Authorized Signatory)

Signature:

Name:

Designation:

Address:

Seal:

Date:

## ANNEXURE – II: FORMAT FOR SUBMISSION OF PROPOSALS

### FORM A1: PARTICIPANT PROFILE

<To be printed on Company letterhead>

| S. No. | Item   | Participant's Response |                  |                    |             |
|--------|--|------------------------|------------------|--------------------|-------------|
| 1.     | Company Name   |                        |                  |                    |             |
| 2.     | Year Established   |                        |                  |                    |             |
| 3.     | Incorporated in India (Y/N)  |                        |                  |                    |             |
| 4.     | PAN  |                        |                  |                    |             |
| 5.     | GST  |                        |                  |                    |             |
| 6.     | CIN  |                        |                  |                    |             |
| 7.     | Contact Name and position  |                        |                  |                    |             |
| 8.     | Head Office Address  |                        |                  |                    |             |
| 9.     | Mobile (of contact person)   |                        |                  |                    |             |
| 10.    | Telephone (of contact person)  |                        |                  |                    |             |
| 11.    | Fax Number (of contact person)   |                        |                  |                    |             |
| 12.    | Email Address (of contact person)  |                        |                  |                    |             |
| 13.    | Brief Description of the Organization  |                        |                  |                    |             |
| 14.    | Office Address   |                        |                  |                    |             |
| 15.    | Certification Details as prescribed in Eligibility Criteria- Table A:<br>a) STQC empanelment for API testing<br>b) CERT-IN empanelment for Information Security Audits | S.no                   | Certificate Type | Certificate Number | Valid Up-to |
|        |  |                        |                  |                    |             |
|        |  |                        |                  |                    |             |
|        |  |                        |                  |                    |             |
|        |  |                        |                  |                    |             |

(Authorized Signatory)

Signature:

Name:

Designation:

Address:

Seal:

Date:

## **FORM A2: UNDERTAKING/CERTIFICATE ON “NON-BLACKLISTING OR BANNED”**

<To be printed on Company letterhead>

We confirm that our company \_\_\_\_\_ as on date of submission of the proposal is not blacklisted or banned by any ministry/department/attached offices/sub-ordinate offices under Government of India and any State government, autonomous bodies (established by Central/State govt), any Central/State PSUs in India for corrupt, fraudulent or any other unethical business practices.

Sincerely,

(Authorized Signatory)

Signature:

Name:

Designation:

Address:

Seal:

Date:

## **FORM A3: UNDERTAKING/CERTIFICATION ON “NO CONFLICT OF INTEREST”**

<To be printed on Company letterhead>

### **Certificate for undertaking for No Conflict of Interest**

We hereby confirm that our company <insert name of the company> is not involved in any conflict of interest situation with one or more parties in this proposal process, including but not limited to:

- 1 Receive or have received any direct or indirect subsidy from any of them; or
- 2 Have common controlling shareholders; or
- 3 Have the same legal representative for purposes of this proposal and development of the self-assessment certification service; or
- 4 Have a relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the proposal of another participant; or
- 5 Influence the decisions of NHA regarding this proposal process; or
- 6 Participation in more than one proposal in this process. Participation in more than one proposal will result in the disqualification of all proposals. However, this does not limit the inclusion of the same product (commercially available hardware, software or network product manufactured or produced by the firm), as well as purely incidental services such as installation, configuration, routine training and ongoing maintenance or support, in more than one proposal; or

- 7 Participation as a consultant in the preparation of the design or technical specifications of the goods and services that are the subject of the proposals; or
- 8 Association as Consultant/ Advisor/ Third party independent evaluating agency with any of the solution vendors taking part in the proposal process.

(Authorized Signatory)

Signature:

Name:

Designation:

Address:

Seal:

Date:



### ANNEXURE – III: SUBMISSION OF PARTICIPANT EXPERIENCE

Note: Participants need to submit details of all the similar/related services (Refer clause 3.1) undertaken in the last three years as on the date of application in the below mentioned table. Separate tables may be submitted for each project.

<To be printed on Company letterhead>

| Sr. No. | Parameters   | Response |
|---------|--|----------|
| 1.      | Name of the participating entity   |          |
| 2.      | Assignment Name  |          |
| 3.      | Name of Client   |          |
| 4.      | Participant's SPOC at client location (Name and Contact details)                               |          |
| 5.      | Client Contact Details ( <i>Contact Name, Address, Telephone Number</i> )                      |          |
| 6.      | Country (where the project was executed)   |          |
| 7.      | Total cost of the project  |          |
| 8.      | Approximate Value realized as on date  |          |
| 9.      | Fee charged per evaluation from end customer   |          |
| 10.     | Duration of Assignment (months)  |          |
| 11.     | Award Date (month/year)  |          |
| 12.     | Go-Live Date / Completion Date (month/year)/ Operation and Maintenance Phase                   |          |
| 13.     | Documentary evidence as required (Work Order along with completion certificate to be attached) |          |
| 14.     | Narrative description of the project   |          |
| 15.     | Details of work that defines the scope relevant to the requirement                             |          |

(Authorized Signatory)

Signature:

Name:

Designation:

Address:

Seal:

Date:

## ANNEXURE – IV: OTHER DETAILS

Note: Participants need to submit the details of annual turnover and other quality related certifications (For e.g. ISO 9001, ISO 27000) in the below mentioned table(s).

<To be printed on Company letterhead>

(1) Annual Turnover (Profit and Loss statement to be attached)

| S.no | Financial Year | Annual Turnover (in INR- Amount) |
|------|----------------|----------------------------------|
| 1.   | 2018-19        |                                  |
| 2.   | 2019-20        |                                  |
| 3.   | 2020-21        |                                  |

(2) Quality Related certifications (valid certificate copies to be attached)

| S.no | Certificate Type | Certificate Number | Valid Up-to |
|------|------------------|--------------------|-------------|
|      |                  |                    |             |
|      |                  |                    |             |
|      |                  |                    |             |
|      |                  |                    |             |

(Authorized Signatory)

Signature:

Name:

Designation:

Address:

Seal:

Date: