

Ministry of Education

National Digital Education Architecture

NDEAR Ecosystem Policy

11th November 2022

Preamble

Context

In line with the policy direction of NEP 2020, the Union Budget 2021-22 laid emphasis on strengthening India's digital infrastructure for education and announced the setting up of a National Digital Educational Architecture (NDEAR) blueprint which will enable unifying national digital infrastructure and leverage ecosystem capabilities across Centre, States & Union Territories. Hence, NDEAR was envisaged as a key enabler of NEP 2020.

National Digital Education Architecture (NDEAR)¹ was launched by Hon. Prime Minister of India on 29th July 2021, with a vision "to create a unifying national digital infrastructure and act as a super connector to cross leverage ecosystem capabilities and catalyse innovation in skilling and education"; in the same way as the UPI interface revolutionised the banking sector.

With a vision to create a "Unifying national digital infrastructure", National Digital Education Architecture (NDEAR), is a technological framework that aims to enable set of interoperable building blocks which are contributed and used by ecosystem players that help create and deliver diverse, relevant, contextual, innovative solutions benefiting students, teachers, parents, communities, administrators alike resulting in timely implementation of policy goals.

NDEAR Building Blocks and Ecosystem Approach

As per the NDEAR Report² section 2.4.3, the NDEAR defines 3 types of building blocks - Core, Common, Reference - each of them classified further into 12 categories and 36 sub-categories. A building block is a package of self-contained capability defined to meet a specific set of needs through a set of services made available via APIs and optionally applications.

NDEAR provides flexibility for existing systems to upgrade; become interoperable to be contributed as Core and Common building blocks. In addition, new building blocks can be created using Reference building blocks. All the building blocks must be built as unbundled; following the principle of microservices offered via open APIs that are interoperable and can be combined to build newer solutions instead of focusing purely on "end-to-end solutions".

Some building blocks may exist, some may need to be developed, others repurposed in/for the education ecosystem. As long as they are compliant and compatible with NDEAR, they may be used by governments, civil society, and private organisations to develop relevant platforms, solutions and programmes for students, teachers, parents, administrators, and the community. Hence, NDEAR allows the ecosystem across governments, civil society & private organisations to super connect their capabilities to cross-leverage each other's capabilities and not build them again & again.

Enabling use, contribution and enlisting of building blocks by ecosystem players - Government, Civil Society and Market players - as envisaged above will result in following benefits:

- a. Ecosystem players develop innovative, inclusive, and contextual solutions, as envisaged in NEP 2020 policy and NDEAR, addressing diverse needs of the country in education and skilling sector: for the full continuum from pre-K-12 to higher education and beyond including skilling, employability, etc
- b. Start-up and NGO community leverages existing NDEAR building blocks, reducing cost and time to market, that further increases choice, access, and inclusion
- c. Vibrant ecosystem innovation and imagination, facilitated via the ecosystem sandbox,
- d. Improved policy research and governance via open data in the education and skilling sector

¹ National Digital Education Architecture (NDEAR) - <https://ndear.gov.in/>

² NDEAR Formal Complete Report - <https://www.ndear.gov.in/policies-and-standards.html>

Given the enormous advantages in this regard, this policy is formulated to provide clear guidance towards who can use, contribute, and enlist building blocks, what constitutes a building block, a high-level compliance requirements and process for the same.

Compliance with Existing Policies

In addition to the NDEAR Report, this policy is defined in compliance with the following existing policies and practices being adopted by different government bodies.

1. **Policy on Open Application Programming Interfaces (APIs)** for Government of India was notified by MeitY³ in 2016-17. This policy is applicable to all Government organisations under the Central Government and to those State Governments that choose to adopt this policy for all new e-Governance applications and systems being considered for implementation as well as for new versions of legacy and existing systems. MeitY also offers API Setu⁴, National API Exchange Platform (NAPIX)⁵ as platforms to list and offer such APIs by the Government to the ecosystem.
2. **MeitY's NDSAP Policy on Government Data**⁶. This policy recommends that all data that are not categorised as sensitive/secret data be made available to the ecosystem. MeitY has also sent letters⁷ to all the departments and ministries regarding sharing of datasets for evidence-based policy making.

NDEAR Ecosystem Policy - Key Highlights

To operationalize the NDEAR Report, a "NDEAR Ecosystem Policy" (hereinafter referred to as the "Policy") is being formulated to encourage the use, contribution and enlisting of NDEAR building blocks by all ecosystem players - Government, Civil Society and Market players.

Following are the key highlights of this Policy:

1. **Use Policy: All ecosystem players - Government bodies (Central, State/UT, Government affiliated organisations), Civil Society and Market players can use any of the NDEAR Building Blocks.**
 - Core and Common Building Blocks: Use services enabled through open APIs, and optionally applications as well, build solutions and/or contribute assets, data, or models to the building block. This requires an approval based on adhering with the relevant compliance needs.
 - Reference Building Blocks: Use code, specifications, assets, model, and data provided as Reference building blocks to build solutions. There is no approval required for this.
2. **Contribute Policy: All Government bodies (Central, State/UT, Government affiliated organisations) can contribute to any of the NDEAR Core or Common Building Blocks.**
 - Core and Common Building Blocks: Contribute a running platform enabling a set of services available for use by the ecosystem through open APIs. In addition, they may provide applications as well for use. This requires adhering with the relevant compliance needs.
 - While Government bodies contribute NDEAR Core or Common building blocks, all ecosystem players, including Civil society and Market players can create open-source assets and/or leverage and innovate on top of them. They can also contribute

³ Policy on Open API for Gol :

<https://www.meity.gov.in/writereaddata/files/Policy%20for%20API%20for%20Gol.pdf>

⁴ API Setu - <https://apisetu.gov.in/>

⁵ NAPIX - <https://napix.gov.in>

⁶ NDSAP Policy on Government Data - <https://data.gov.in/sites/default/files/NDSAP.pdf>

⁷ Letter issued by MeitY on Open API Policy : <https://www.meity.gov.in/writereaddata/files/Letter-issued-Dt.14.01.2022.pdf>

assets, data and models through the Core or Common building blocks (e.g., ecosystem contributing content via VidyaDaan or DIKSHA).

- 3. Enlist Policy: All Government bodies (Central, State/UT, Government affiliated organisations) can enlist NDEAR Reference Building Blocks.**
 - Reference Building Block: Enlist open-source software code, specifications, assets, model, or data as Reference building blocks for use by the ecosystem. This requires adhering with the relevant compliance needs.
- 4. NDEAR team will implement the required processes and enable discovery and access to NDEAR building blocks via NDEAR portal for the ecosystem players to use in compliance with the NDEAR Report and the Policy as defined in this document**
- 5. NDEAR team will also ensure that the NDEAR portal enables visibility to NDEAR building blocks usage - which ecosystem players are using them, the relevant usage metrics, and potential impact.**

All the ecosystem players are encouraged to participate; contribute, enlist, and use NDEAR building blocks as per defined Policy. All the Central, States/UTs, Government affiliated institutions are requested to initiate the process to set-up an institutional mechanism to use and contribute towards education & skilling infrastructure and solutions engaging their own extended ecosystem. States/UTs are strongly encouraged to conduct ecosystem engagement activities like hackathons, workshops, etc as appropriate and fully leverage the NDEAR building blocks in context to their cares and needs.

The subsequent sections define detailed Policy to Use, Contribute and Enlist different types of building blocks.

NOTE:

The document is in public domain with the caveat that the policies are dynamic by nature and will be adapted, modified or edited based on industry and market needs. This is the first step towards building the architecture. The API policy will also be dynamic and concurrent with industry standards.

Use Policy - NDEAR Core and Common Building Blocks

Policy Statement

1. NDEAR Core and Common building blocks provide services through open APIs and optionally applications to enable the ecosystem to provide value added and contextual solutions.
2. Apart from functionality, the services may also provide access to assets, models, and data for use. They will be enabled in accordance with the principles⁸ of data privacy and protection.
3. The services and applications may also allow ecosystem players to contribute assets, models, or data. For example, organisations can contribute digital content through VidyaDaan, or Content Contribution APIs provided as part of DIKSHA. The ecosystem players using the services and applications are strongly encouraged to contribute back their assets, data, functional capabilities through the NDEAR building blocks.
4. The applications provided by the building blocks may allow ecosystem players to extend the functional capabilities of the application. These will be enabled using NDEAR open specifications for application integration and extension. NDEAR will publish relevant open specifications in that regard. For example, DIKSHA applications can use the open specification SOFIE to enable additional functional capabilities such as Live Classes, Doubt Solving, Read Along etc.
5. Bringing the ecosystem together to build innovative solutions is fundamental to NDEAR. So, the contributors of the building blocks are highly encouraged to engage with the ecosystem to enable a wider use of their building blocks.
6. The ecosystem players using NDEAR building blocks will have to share back data on key metrics through relevant telemetry data back to NDEAR building blocks (with appropriate provisions for ensuring privacy and data protection by both NDEAR and its users in respect of such telemetric data) to enable other ecosystem players to leverage it.
7. The ecosystem players who contribute assets, model, data, or extension of functional capabilities as described in point 3 and 4 shall comply with any additional policies or rules as specified by the building block.
8. Ecosystem players are also strongly encouraged to adopt relevant NDEAR open standards and specifications to make their platforms interoperable; and open their services for the NDEAR ecosystem as well.

Who can use

1. Government bodies - Any Central, State/UT or Government affiliated organisations in India.
2. Civil Societies and market players registered for operations in India - including but not limited to NGOs and private players in education, research, and skilling space.
3. Any organisations situated outside India that are affiliated with Indian Education and Skilling government bodies can also have the appropriate access upon approval.

⁸ Data Protection in India

<https://digitalindia.gov.in/writereaddata/files/6.Data%20Protection%20in%20India.pdf>

https://www.meity.gov.in/writereaddata/files/white_paper_on_data_protection_in_india_18122017_final_v2.1.pdf

4. It is envisaged that the policy (at a later stage with revision or in current shape) will provision for individuals / organisations leveraging / contributing to NDEAR building blocks globally; to make it easier for the Indian community to transact globally in the education and skilling space.
5. The building block providers may charge a fee (typically a utility fee) for API or asset use. Ideally, the government bodies should follow a toll pricing model (standard utility fee for all just to ensure sustainability, and not profit).
6. As innovation by ecosystem is a core principle of NDEAR, all commercial innovations shall also be allowed without any restrictions.

Compliance Requirements

1. The ecosystem players using NDEAR building blocks shall have to ensure adherence with the security practices notified by Government of India for secure API communications for managing keys and related ICT Infrastructure and services and other provisions of the Information Technology Act, 2000 (including any other law in force regarding personal data protection).
2. The ecosystem player shall comply with relevant principles of data privacy and protection.
3. The ecosystem player shall comply with additional policies, defined by building block being used, including but not limited to the contribution of assets, model, data, or extension of functional capability.
4. The ecosystem players shall also comply with any policies, regulations and guidelines that may be formulated or updated in future on an ongoing basis.
5. The ecosystem players shall ensure that building block services used by them are not abused, misused and that they also duly abide by the Terms of Services defined by the building block. A suggested set of [Terms of Service](#) are provided in the Annexure.
6. While the ecosystem players can roll out applications for all or some of the functionalities using various services, the applications will have to share relevant telemetry data back to NDEAR building blocks as per the defined telemetry specifications.
7. NDEAR team and/or the concerned building block provider shall have the authority to revoke the access and use of some or all the services to an ecosystem player who misuses the services or violates the terms of use. This includes but is not limited to APIs, applications, assets, models, or data being created or used.

Process to follow

1. The APIs shall be accessible through a secured access key that will be provided to the ecosystem players upon following the due process for approval. [Annexure 1](#) describes a suggested process that can be adopted by the Building Blocks. The actual process rolled out for a specific Building Block may vary and evolve based on the context.
2. For contributing assets, data, models and extension of application capabilities, the corresponding building block will define the required process.

Use Policy - NDEAR Reference Building Blocks

Policy Statement

1. Reference building blocks will provide access to open-source software, specifications, data, assets, and models for ecosystem players to use and develop new platforms and applications in accordance with the NDEAR principles.
2. In case of open software and specification - ecosystem players are strongly recommended to engage in the building block community and contribute the enhancement they might have implemented. It is beneficial for the ecosystem player to follow NDEAR principles and adopt building block guidelines for enhancement as it will enable them to use the enhancements made by the building block community.

Who can use

1. Government bodies - any Indian Central, State/UT or government affiliated organisation
2. Civil Societies and market players registered for operations in India - including but not limited to NGOs and private players in education, research, and skilling space.
3. Any individual

Compliance Requirements

There are no special compliance requirements. The building blocks have to be used for legal purposes only.

Process to follow

There is no special process to leverage Reference building blocks. They shall be publicly available for anyone to access and use. This does not require any process for authorization or access. The Reference building blocks shall be available and accessible for everyone to use through NDEAR portal and other open platforms such as GitHub.

Contribute Policy - NDEAR Core and Common Building Blocks

Policy Statement

1. Authorised organisations can contribute a running platform as NDEAR Core or Common building block, to the ecosystem to use, providing a set of services through open APIs and optionally applications.
2. Bringing the ecosystem together to build innovative solutions is fundamental to NDEAR. So, the contributors of the building blocks are highly encouraged to engage with the ecosystem to enable a wider use of their building blocks.
3. The building block provider should enable ecosystem players to use services and application of the contributed building block as per the “Use Policy - NDEAR Core and Common Building Blocks” defined above.
4. Building blocks may recognize ecosystem players, with verifiable credentials, who have enabled NDEAR compatible value added and contextual solutions, including contribution, using the building block services and application.
5. It is highly recommended that the contributed building blocks, core or common, (except which are notified as sensitive) are developed using NDEAR principles and standards; and are in compliance with the “Enlist Policy - NDEAR Reference Building Blocks” so that the underlying code can be contributed as “Reference Building Block” for the benefit of the ecosystem. They should use open-source software, open standards and specifications ensuring vendor neutrality and transparency.

Who can contribute

1. Government bodies - Any Central, State/UT or Government affiliated organisations in India

Compliance

1. The building block provider should enable the ecosystem players to use services and application of the contributed building block as per the “Use Policy - NDEAR Core and Common Building Blocks” defined above. All the necessary setups, compliance requirements and processes need to be enabled and managed by the building block provider
2. The services shall be discovered and consumed through a set of open APIs by all ecosystem players.
3. A sandbox environment along with relevant documentation needs to be made available for the ecosystem players to access and test the open APIs.
4. The Building Blocks, including services and application, shall adhere to the NDEAR architecture principles, standards, and policies.
5. Open data related to the usage of the services is made available to the ecosystem.
6. Provide NDEAR team the information about ecosystem players who have used the building block to enable NDEAR compatible solutions, including contribution. The information should include ecosystem player info, the relevant usage metrics and potential impact enabled by them

A detailed compliance checklist for this may be drafted and published by the NDEAR team for review and perusal of all ecosystem players.

Process to follow

1. The submission shall be made to the NDEAR Team with required details. The NDEAR Team shall review and list them as building blocks on NDEAR portal if all the compliance requirements are met. A detailed procedural guideline for this may be drafted and published by the NDEAR Team for review and perusal of all ecosystem players.
2. NDEAR team will enable discovery and access to NDEAR building blocks via NDEAR portal for the ecosystem players. NDEAR team will also ensure that the NDEAR portal enables visibility to NDEAR building blocks usage - which ecosystem players are using them, the relevant usage metrics, and potential impact.

Enlist Policy - NDEAR Reference Building Blocks

Policy Statement

1. Open software, specifications, assets, model, or data can be enlisted as NDEAR Reference Building Blocks. The building blocks need to be relevant to education and skilling; and aligned with building block categories as defined in NDEAR Report
2. The proposed Reference building block can be developed and managed by an open community. The organisation proposing the building block is not required to own what is being proposed as the NDEAR Reference building block. For example, open-source software, managed by an open community, used by DIKSHA can be proposed to be enlisted as a NDEAR Reference building block by NCERT.
3. They should be open source ensuring vendor neutrality and transparency

Who can propose to enlist

1. Government bodies - Any Central, State/UT or Government affiliated organisations in India.

Compliance

1. The NDEAR Reference building blocks should adhere to the NDEAR architecture principles, standards and policies
2. They should be open source ensuring vendor neutrality and transparency
3. They should be hosted publicly in a source control repository along with proper documentation and licence.
4. There should be an active open community engaging in enhancing, maintaining the building block.

A detailed compliance checklist for this will be drafted and published by the NDEAR team for review and perusal of all ecosystem players.

Process to follow

1. The submission shall be made to the NDEAR Team with required details. The NDEAR Team shall review and list them as Reference building blocks on NDEAR portal if all the compliance requirements are met.
2. The detailed procedural guidelines for this may be drafted and published by the NDEAR Team for review and perusal of all ecosystem players.
3. NDEAR team will enable discovery and access to NDEAR building blocks via NDEAR portal for the ecosystem players.

Recommended Initial set of NDEAR Building Blocks

In accordance with the Policy defined above, the following are highly recommended as the initial set of NDEAR Building Blocks for use by the ecosystem:

1. DIKSHA from NCERT (Content and Learning services)

DIKSHA, a national digital infrastructure for school education is enabled by NCERT and is being used extensively across the country. DIKSHA has set up a platform enabling multiple services in Content and Learning NDEAR categories.

DIKSHA platform and applications are enabled using open-source code and specifications from Sunbird - a MIT licensed open-source initiative. Sunbird initiative follows the core principles of open architecture, open access, open licensing with diversity, autonomy, and choice.

In compliance with NDEAR Ecosystem Policy, following should be considered as NDEAR building blocks:

- a. Common Building Blocks
 - i. Content and Learning services enabled by DIKSHA Platform
 - ii. Applications enabled by DIKSHA - VidyaDaan, Learning Apps
- b. Reference building blocks
 - i. Software - Sunbird (Sunbird ED, Sunbird Knowlg, Sunbird CoKreat, Sunbird inQuiry, Sunbird Lern, Sunbird Obsrv, Sunbird RC, Sunbird UCI)

2. Bhashini from MeitY (Language Assets and Services)

National language mission called Bhashini⁹ has been launched that aims to enable all Indians easy access to the Internet and digital services in their own language and increase content in Indian languages. Given the importance of Indic languages in the core education and skilling sector, it is critical that NDEAR leverages Bhashini assets to build language driven learning experience innovations within the NDEAR ecosystem. DIKSHA and the larger ecosystem can use these language services for content translation, speech to text, text to text, speech to speech conversion etc. and build language learning related innovative solutions. To support that, following Bhashini services should be considered as NDEAR Common building blocks in the category of Language Assets and Services:

- a. Universal Language Contribution API (ULCA) services
- b. Bhasha Daan applications

3. Analytics Services from NCERT (Open Data and Analytics)

As per the NDEAR Report section 2.4.3, open data and analytics is an important category of building blocks to enable effective and quick decision making. The data and analytics services should be built to be reusable and open sourced and ensure that these can be used within other building blocks, and still be deployed in a federated deployment architecture, without having to take an entire analytics solution.

The starter pack for Vidya Sameeksha Kendra (VSK) offered by NCERT and NIC may be leveraged by states to host their own analytics solutions to analyse data from various

⁹Bhashini website <https://www.bhashini.gov.in/>
NDEAR Ecosystem Policy- 11-11-2022

educational initiatives and there upon take actions. The underlying open-source software used is Sunbird Saral and Sunbird cQube.

In compliance with NDEAR Ecosystem Policy, following should be considered as NDEAR building blocks:

- a. Common Building Blocks: VSK Starter Pack services
- b. Reference building blocks: Sunbird Saral, Sunbird cQube

UDISE, AISHE, NSP APIs may also be explored to be contributed as NDEAR building blocks subsequently. This is a continuously evolving list.

Review of the Policy

The draft policy document shall be published on NDEAR portal for public review. The final version of the document shall be published upon review and incorporation of relevant comments. The Ministry of Education shall also review and revise the policy as and when required and publish the revised policy.

All NDEAR policy and process documents that may be created in future shall also be published on NDEAR portal for ecosystem and public review and feedback before they are finalised.

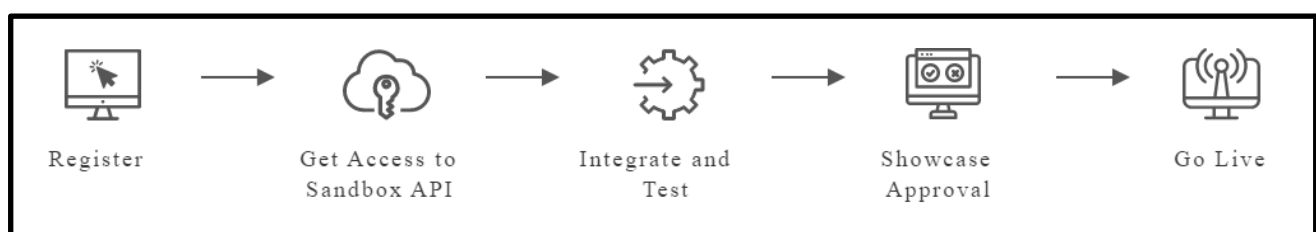
Annexure 1 - Procedural Guidelines for API integration

Access to open APIs by a third-party application will require an authorised access token with a defined rate limit (example: 100 API calls per 5 minutes per IP). The access token can be obtained by an ecosystem player following the due process. Following is an indicative classification of the APIs.

1. **Public API:** This will allow approved third-party applications to access assets, frameworks, and functionality which does not require a user to login and authentication. These fundamentally will be ready only APIs.
2. **Protected API - User session:** This will allow approved third-party applications to access APIs which require a user to register and login. Protected APIs will enable users' transactions such as register, login and enhanced learning experiences such as user specific learning journeys. They also enable access to user specific details such as their credentials.
3. **Protected API - Role based:** This allows approved third-party applications to access APIs which require the user being given specific role-based permission. Protected API - Role based will allow operations such as creating, modifying, deleting assets, enabling contribution etc.

NDEAR building blocks shall expose the open APIs via a sandbox for ecosystem players to integrate and test their applications before moving to production.

Following diagram depicts the overall process for ecosystem players to access and integrate their applications with open services:



Register

1. Any ecosystem player wishing to integrate with the open APIs will have to send a request to register on the sandbox. Please refer to [Annexure 3](#) that provides a suggested process for registration.
2. As part of the registration process, the ecosystem player must agree to the “Terms of Service” as prescribed by the building block. Refer [Annexure 2](#) for the suggested Terms of Service.
3. In case, an organisation engages a third-party service provider to build an application using the open API, the primary organisation as well as the third-party service provider shall be responsible for compliance with the required policies and guidelines and shall be liable for

any actions relating to failure to comply. Both the organisations have to agree to be bound by the Terms of Service and submit a declaration to this effect.

4. Any ecosystem player who wishes to integrate with the open APIs, should nominate authorised system administrators along with their mobile numbers.

Get Access to Sandbox API

5. Request applications will be reviewed by the respective team offering the building block. Approved applications will be provided with an access key for the sandbox so that they can integrate APIs and test their application.
6. The NDEAR and/or building block team may reject applications, an email with a rejection reason will be shared with the applicant.

Integrate and Test

7. After getting access to the sandbox, the ecosystem player can integrate and test their application using the sandbox APIs.

Showcase and Approval

8. Once integration and testing are complete, the ecosystem player will submit the application for functional validation.
9. The demonstration of the functionality and independent validation will be done and is taken up on a first come first serve basis.
10. The ecosystem player shall have to give evidence to the building block team that their system is secure from the perspective of data security and is in compliance with the norms of use and retention of personal information of the user as prescribed in the Terms of Service (refer to [Annexure 2](#))
11. The building block team will review the validation results and recommend applications that can be provided production access. A detailed guidelines document will be drafted for this, which will detail on the various parameters on which the applications may be reviewed.

Go Live

12. The building block team will carry out IP whitelisting and sharing of the production access key to the approved applications.
13. Different types of APIs would have different keys to access them. All API Keys will have a rate limit as defined by the respective services.
14. Once the ecosystem player gets access to the required production APIs, they can connect their applications to the production systems and go live with their applications.
15. NDEAR building blocks may undergo periodic upgrades. This may require upgrades to the third-party applications integrating with them. The upgrade releases of building blocks will come with the release notes detailing the changes. The ecosystem players should make any upgrades to their applications as required. NDEAR team or building block team will not be responsible for any break in functionality of a third-party application that may be caused due to the upgrades.

Annexure 2 - TERMS OF SERVICE

Every ecosystem player who wishes to utilise the APIs from NDEAR building blocks, shall have to submit an undertaking that the the partner agrees to the following Terms of Service:

1. Consent

Any application developed that uses the APIs to access and collect data should ensure that it cannot access and collect personal data except as provided in the guidance issued by the existing data policies. Wherever personal data is collected, consent management will have to be undertaken as per the extant policy/ directions of the government issued in this regard as may be applicable. If any user does not consent for sharing of their data, then it must be ensured that such users have other viable and alternate mechanisms by which they can avail related services through these applications.

2. Accessibility

Authorised third-party organisations should only access (or attempt to access) whitelisted data elements in the manner described, in the API documentation. If an NDEAR sandbox has assigned any developer credentials to the organisation, such credentials must only be used in relation to the applicable APIs. It must not misrepresent or obfuscate the identity of MoE or the identity of their organisation. These authorised organisations shall not share or disclose intentionally or unintentionally the API Keys or user details, or any information retrieved through API except as approved under this guideline.

3. Termination

The NDEAR team and or building block team can terminate the use of the APIs any time with or without giving any notice. The use of the APIs may also be terminated any time by giving 30 days prior notice.

NDEAR Team or building block team can terminate the API Terms of Service and discontinue the right to use the APIs and features thereof without cause and at any time without liability or other obligation. Upon such termination the organisation will immediately stop using the API and on request, delete any data collected using the API except the data that they are necessarily required to maintain for complying with existing laws.

Any non-compliance or submitting any false information or violation of the API Terms of Service or misuse of the service, would result in appropriate legal actions.

4. Support

The authorised organisation can seek support from the respective technical teams managing the building blocks for any support related technical queries related to the APIs. However, the teams will not have any obligations to make any changes in the software or APIs to address the technical queries.

5. API Limitations

API requests will have predefined limited usage policies that may limit the number of users that can be served, including other limitations, as deemed appropriate by building block team. Authorised organisations shall not circumvent or attempt to circumvent these limitations, and appropriate action in accordance with law shall be taken in the instance of

such circumvention or attempt to circumvent. If, for any reason and exception is desired, a written consent from the NDEAR team is required.

6. Purpose of Information collected via the APIs

NDEAR recognizes the importance of privacy of its end-users and also of maintaining confidentiality of the information provided by its end-users (either directly or via third party organisations) as a responsible data controller and data processor. In providing these services, NDEAR building blocks shall process the data that the authorised third-party organisations will submit via the APIs. This data will be subject to the data protection guidelines and applicable laws and policies, established or issued by the Government of India. NDEAR building blocks will retain the information, shared by the authorised third-party organisations, on its servers for as long as is reasonably necessary for the purposes established by the Government of India in accordance with the applicable law and policies issued by the Ministry. Where this information is no longer required, NDEAR building block that is handling that data will ensure it is either securely deleted or stored in a way which means it will no longer be used by either itself or any of its authorised partners (third-party organisations using the APIs).

It is important that the third-party organisations have a clearly defined privacy policy of their own in accordance with applicable law for the time being in force in India, so that it articulates the information collected from the end users (including personal data, such as account creation data, usage information, data retention requirements and cookie information).

7. Re-Distribution

Authorised organisations shall not re-distribute any data that they are able to access through the API and shall ensure that integration of all such data shall compulsorily be limited to the specific services provided by the respective NDEAR building block. Under no circumstances, shall an organisation use the data collected for any purposes other than the purposes specified herein, and as may be permitted by the government.

8. Use and Retention of information

- a. Prior to seeking user consent, authorised organisations must inform each of their users in a clear, concise, and accessible manner of the specific purpose for which the data would be used, the period for which it shall be retained and the manner in which it shall be deleted.
- b. Once collected, the organisation shall only use the data for the stated purpose in accordance with these guidelines and delete it on or before the expiry of the retention period or as defined in the API Terms of Service.
- c. All API Clients shall be designed to only collect as much data as is strictly necessary to achieve the stated purpose and to delete such data as soon as possible after such purpose has been served.
- d. For the avoidance of all doubts, no API Client shall be designed to use the data for a purpose unrelated to education services nor shall the period for which the data is retained by the API Client exceed the data retention provisions set out by this policy.
- e. The authorised organisations shall ensure that they will generate and maintain auditable logs of the data collected and processed by the API Client, including details and records of the storage, access and sharing of any such data, and shall, on demand, make such logs available to the NDEAR team and or building block team.

- f. The authorised organisation shall not use the APIs and the data available through APIs to engineer any products that lead to any automation of the data input processes, especially those where the data is to be entered by the user.
- g. The APIs or the data accessed through the APIs shall not be commercially exploited.

9. Data Security

- a. The authorised organisations shall use all reasonable efforts to protect the user data collected by the API Client from unauthorised access or use and take all measures as may be required by any applicable law in relation to security of personal data and will promptly report to the NDEAR team and the users about any unauthorised access or use of such information to the extent required by Law.
- b. To the extent possible, the API client should follow the anonymisation principles, where applicable. All API communication should be done in a secure manner, using a transport layer encryption.
- c. The API Keys should not be exposed in plain text.
- d. The API Keys allotted to one organisation, should not be shared with anyone else except as may be allowed by the NDEAR or building block team.
- e. In case of any compromise of the API Key, then the same should be immediately reported to the NDEAR team and building block team.
- f. The data collected through the APIs, shall be stored within India only.

10. Compliance with Law, Third Party Rights, and Other Terms of Service

The authorised organisations will comply with all applicable laws, regulation, policies, and third-party rights (including without limitation, any laws regarding the import or export of data or software, privacy, and local laws) established by the Government of India. These organisations will not use the APIs to encourage or promote illegal activity or violation of third-party rights including these “Terms of Service”.

11. Correctness of Data provided by third party systems

The ecosystem players updating data onto an NDEAR building block shall be solely responsible for the correctness of such data and any liability arising out of any data so provided shall completely rest with such third party. Any liabilities, civil or criminal, arising out of any incorrect data shall solely lie with the concerned ecosystem player.

12. Prohibitions and Confidentiality

When using the APIs, the authorised third-party organisations shall ensure (or allow those acting on behalf of organisations) that the following actions aren't performed.

- a. Sublicense/subcontracting of the APIs—the authorised organisations will not create an API Client that functions substantially the same as the APIs and offer it for use by third parties.
- b. Perform an action with the intent of introducing any viruses, worms, defects, Trojan horses, malware, or any items of a destructive nature, to the services.
- c. Interfere with or disrupt the APIs or the servers or networks providing the APIs.
- d. Promote or facilitate unlawful online gambling or disruptive commercial messages or advertisements.
- e. Reverse engineer or attempt to extract the source code from any API or any related software.
- f. Use the APIs to process or store any data in contravention of the IT Act, or any applicable policies or guidelines issued by the Government of India.

13. Use of Government logo

Government logo may only be used after a separate explicit approval has been obtained from the Ministry in this regard.

Annexure 3 - Registration Request for access to Production API

1. Any ecosystem player wishing to integrate with services of NDEAR building blocks on production, will have to send a request to the building block team with following details.
2. The following details needs to be provided by the authorised signatory of the organisation:
 - a. Name Of Organization Putting up the Request.
 - b. Type of Organization
 - i. Government
 - ii. Private
 - iii. NGO
 - c. Proof of registration in India provided such as GSTN, PAN, CIN, EPF/ESIC, Society Act, NGO registration number etc.
 - d. Registration number:(GSTN / PAN / CIN number)
 - i. Name as the per identifier, Registration date and expiry date if any, may also be captured as optional information
 - e. Upload Registration document copy.
 - f. Select all capabilities of APIs you plan to use
 - g. Details of the authorised Person Registering on behalf of the Organization
 - i. Name
 - ii. Designation
 - iii. Mobile Number
 - iv. Official email address
 - v. Permanent Address
 - vi. KYC documents for proof of identity and address.
 - h. Purpose(s) for which the Organization will be using API
 - i. Tentative number of Users/Customers that would be catered
 - j. Expected API Requests per day
 - k. Official Website of the Organization
 - l. Details of the nominated authorised system administrator
 - i. Name
 - ii. Designation
 - iii. Mobile number
 - iv. Official email address
 - m. Type of APIs that they require access for - Public, Protected - User session, Protected - Role based
 - n. Details of the parent organisation (in case requesting Organization is engaged by another organisation for building application using the APIs)
 - i. Name of Department or Organization
 - ii. Details of the authorised Person
 1. Name
 2. Designation
 3. Mobile Number
 4. Official email address
 - iii. Copy of the Official letter confirming the engagement of the ecosystem player.
 - o. Declaration by authorised person of the applicant organisation agreeing to “Terms of Service” defined in Annexure 2 and confirming that all the information provided is accurate.

3. The contact (mobile and email) of the authorised person and system administrator of applicant organisation might be authenticated via OTP

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