National Health Authority

Ayushman Bharat Digital Mission

Building Health Information Provider (HIP) services & sharing digital health records – Milestone 2

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Terminology:

ABDM - Ayushman Bharat Digital Mission
ABHA - ABHA (Ayushman Bharat Health Account) is a randomly generated 14 digit number
Authorization token : To obtain, the HRP can call 'sessions API' along with the received Client ID and Client Secret. Same must be used in header for other APIs.
Care Context - Health records in a visit
Client ID : Post internal approval, Integrator will receive Client ID to access ABDM APIs
Client Secret : Post internal approval, Integrator will receive Client Secret to access ABDM APIs
EMR - Electronic Medical record
FHIR - Fast Healthcare Interoperability Resources
Gateway : Gateway is the hub that mediates and connects Consent Manager(s), Health Repository Providers and HIUs in the network.
Health Locker : a personal digital storage for users/patients.
HIMS - Healthcare information management system
HIU - An HIU (Health Information User) is an entity
that wants access to digital health information from HIPs, in order to provide services to the patient to whom the information belongs. An HIU can be a hospital, clinic, healthcare technology company, organizations working on health analytics, insurers, medical researchers and government entities.
KYC - Know Your customer
LIMS - laboratory information management system
PHR - Personal Health Record
Request ID - UUID or in response from the API (UUID and response requestID can not be same in one call)
Sandbox - Sandbox is a framework that will allow technologies or products to be tested in the contained environment in compliance with ABDM standards.
UUID - 128-bit universally unique identifier
X-HIP ID - Obtained from HFR registration and Register as HIP service through the API
X-HIU ID - Obtained from HFR registration and Register as HIU service through the API
X-CM ID - For sandbox = sbx , for Production =ndhm

Purpose

The purpose of this document is to outline and demystify HIP building APIs and associated flows for the integrator. This document has the details of APIs and sequence diagrams for Milestone two/M-2 (Building Health Information Provider (HIP) services to share digital records via Personal Health Records (ABHA) app).

- Milestone 1: ABHA creation and capture & verification for seamless patient registration

- ***Milestone 2: Building Health Information Provider (HIP) services to share digital records via a Personal Health Records app , linking of health record with ABHA Address and ABHA number (in case of ABHA address that is linked with ABHA number) sharing of health record with consent***

- Milestone 3: Developing Health Information User (HIU) services to provide a view of patient's medical history (which is linked to their ABHA address) to authorized healthcare workers with complete consent of patient

Features covered in Milestone-2:

a. Create a care context associated with the patient post medical consultation -
   - Support sharing of all major types of health records: Diagnostic Reports, Discharge Summaries, OP Consultation Notes, Prescription Reports , Immunization Records, Health Document and Wellness Record etc.This list may be expanded from time to time.

b. Integrate HIP services to include the following features-
   - Ability to respond to discovery requests from Consent Manager(through Gateway) against ABHA Address
   - Support patient-initiated linking of old medical reports by linking with ABHA Address and ABHA Number (linked with 14 digit ABHA Number) that information is stored with Consent Manager as links.

- Acknowledge Consent Manager requests for health data and save the consent artifact
- Facilitate flow of health data against consent artifact as per specified format (FHIR, encrypted) – check page for additional details on data preparation

c. When the record is ready, an individual is informed about accessing the health records in the following ways :
    - HIP notification : An individual is notified on his/her PHR mobile App for viewing of all the health records linked with ABHA Address.
    - Ensuring SMS goes to all patients who provide a mobile number – SMS to contain a deep link with patient ABHA Address, HIP ID and with a trigger to ABHA Mobile Application

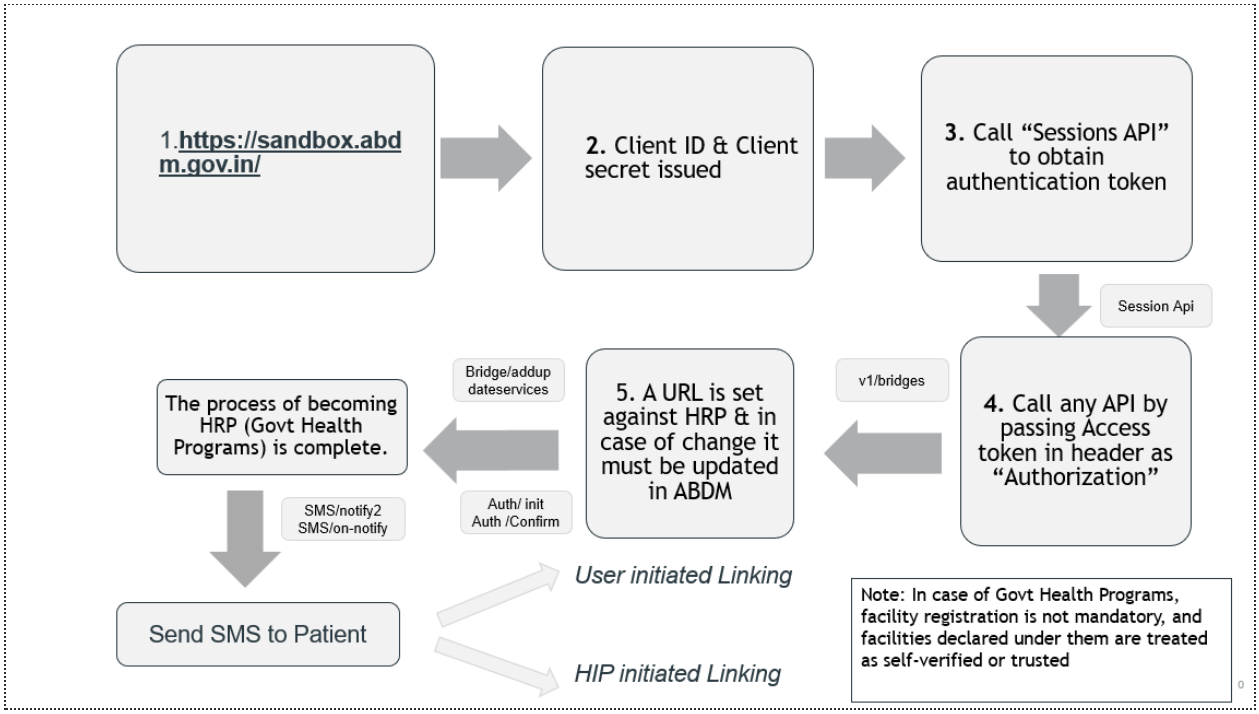
Getting Started :

1. HIP (Health Information Provider): An HIP (Health Information Provider) can be a hospital, laboratory, health care center, clinic or pharmacy. Essentially, it is any healthcare facility which creates medical data pertaining to a citizen/patient. HIPs are required to maintain digital copies of inpatient, outpatient or any other health record for every citizen in their care.

   In order to become an HIP, the said health facility will need to enroll in the ABDM Health Facility Registry (HFR). All health facilities onboarded on HFR are mapped as HIPs.

2. HRP (Health repository providers): Health repository providers (HRP) are software service providers who offer ABDM compliant software and long-term digital storage of health records to HIPs like hospitals, labs, clinics, etc. Their primary role is to enable HIPs to meet their obligations of sharing and securely maintaining the health records of patients digitally. For example, a hosted lab information management system provider (LIMS) may update their software to become ABDM compatible HRP. Any lab using this LIMS software can become a HIP.

Process to become HRP (For Government Programs) :



Process to become HRP and link HIP:

1. Submit "ABDM Sandbox Request Form": An HRP should fill and submit "ABDM Sandbox Request Form" on https://sandbox.abdm.gov.in/

2. Get Client ID and Client Secret: The HRPs will be issued a Client ID and a Client Secret after approval of the Sandbox Request Form.

3. Authenticating with gateway: The HRP needs an authentication token to start using ABDM APIs. To obtain the authentication token, the HRP can call 'sessions API' along with the received Client ID and Client Secret.

```
curl --location --request POST 'https://dev.abdm.gov.in/gateway/v0.5/sessions' --header
'Content-Type: application/json' --data-raw

 '{
  "clientId": "clientId-received",
  "clientSecret": "secret-received"
}'
```

The response received should look like -

```
{
    "accessToken": "Some-JWT-Access-Token",
    "expiresIn": 300,
    "refreshExpiresIn": 1800,
    "refreshToken": "Some-JWT-Refresh-Token",
    "tokenType": "bearer"
}
```

After receiving the **access token,** the HRP can call any API by passing the **access token** in the header as "Authorization". (Remember to append "Bearer " before the token value)

4. Updating Health Repository URL: While setting up an HRP, a URL is set against the HRP. In case the URL changes, the HRP must update the same with ABDM. To update the URL:

➔ Register the end point for the HRP where you expect callbacks from the gateway

API : https://dev.abdm.gov.in/gateway/v1/bridges

Header : Gateway Session Token

```
{ "url": "https://my-hrp-url.com"  }
```

➔ Update the HIPs / HIUs that will be support by this HRP

API : https://dev.abdm.gov.in/gateway/v1/bridges/addUpdateServices

Header : Gateway Session Token

➔ To see the list of registered HIPs for your Client ID use

API : https://dev.abdm.gov.in/gateway/v1/bridges/getServices

Header : Gateway Session Token

5. Register Health Facility and link to HRP: ABDM supports two methods to onboard health facilities-

- Facility declared process – In this process, the health facility is expected to *sign up on the HFR*[1] and then link the ABDM compatible HRP software it plans to use.

- HRP declared process – This process is expected to be used by any HMIS/LMIS provider to allow Facility Managers to register their ID in ABDM using the HRP interface, and then declare their facilities through the HRP interface. On registration, the health facility will receive a Facility ID
- HRP can then link their software with the Facility ID through Bridge Declaration API calls. For HRPs such as Govt. programs should only link their Facilities using the Bridge Declaration APIs.

Every HRP gets a set of production keys - Client ID / Client Secrets that maps to only **one** endpoint URL in the ABDM registry. Multiple HIPs (health facilities) can be linked to this single endpoint. If separate endpoints are registered for the same HIPs, HRPs can write to integration.support@nha.gov.in

All APIs provided in the document are for the ABDM Sandbox. Remove "sbx" for the production URLs

1. HIP Initiated Linking :

HIP initiated linking is the process through which an HIP links the patient's care context with the ABHA Address after patient registration and creation of health records (in their HMIS/ LMIS system).

To achieve this, the HIPs need to do the following:

1. Get user auth for the action they want to perform. There are two different modes of authentication -

[1] Annexure 2

- Mediated (Mobile OTP, Aadhaar OTP, User Demographics)
- Direct

While seeking user auth, the HIP must send purpose of auth, current supported purposes are :

- LINK - for the purpose of adding care-contexts (User details are not returned in this case)
- KYC - for getting basic user details
- KYC_AND_LINK - for requesting user details

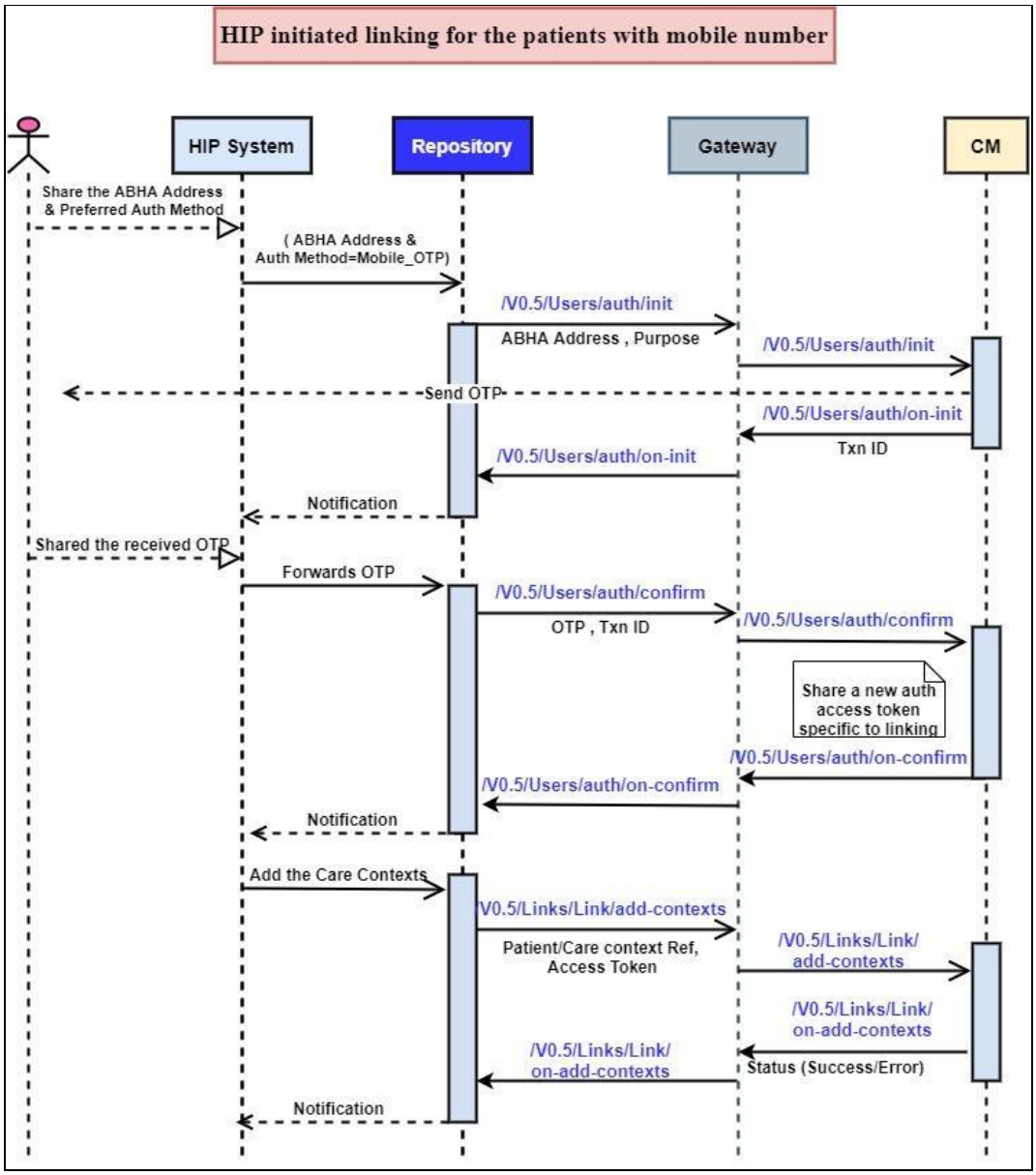
Once the user authentication is confirmed, CM returns “linking token” via /auth/on-confirm API. **NOTE** for KYC purpose, "linking token" is not returned.

2. Using the "linking token" returned above for linking, HIP can subsequently add care-contexts in subsequent API calls /links/link/add-contexts.

Before calling the APIs to link care contexts, HIP should call **/v0.5/users/auth/fetch-modes** for identifying supported authentication modes for a patient given a specific purpose. If a patient is found then auth attribute contains the supported modes for the specified purpose. Otherwise, error is raised for invalid requests or for non-existent id. Authorization token and X-HIP-ID passed in the header.

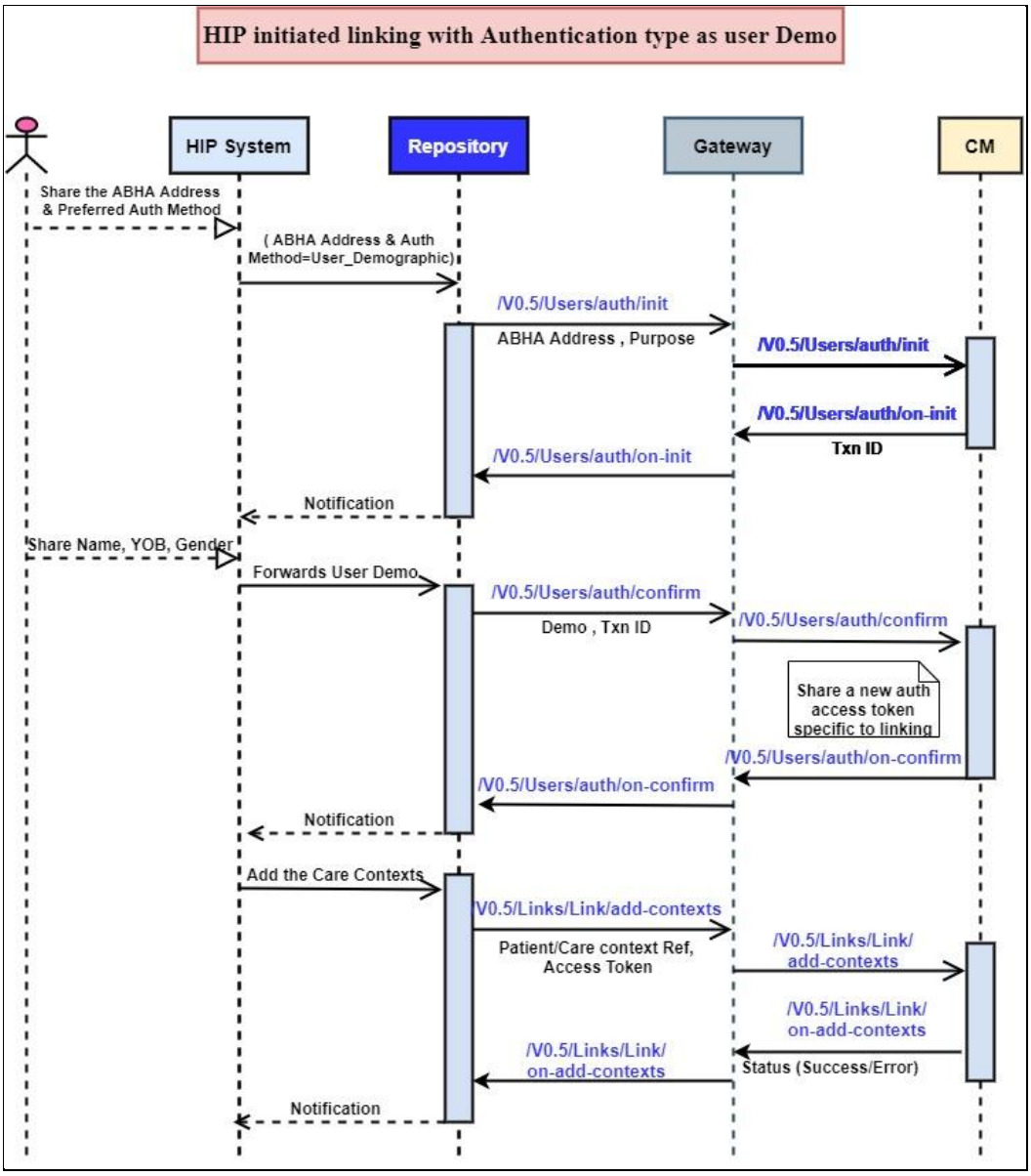
1.1 HIP initiated linking for the patients with mobile number

The hospital registers the patient and typically uploads patient records in their EMR/EHR systems. The hospital will ask the patient if they wish to link the hospital record with their ABHA Address. The hospital will then send the request to the CM with the patient's preferred authentication mode and the ABHA Address. If the patient preferred authentication mode is OTP based, then the patient will receive an OTP which is forwarded to the CM. The CM validates the OTP and creates a new access token for the purpose of linking. This new access token is passed to the HIP. The HIP has to call the CM with the new access token to add the care contexts.



1.2 HIP initiated linking for the patients with demographic details

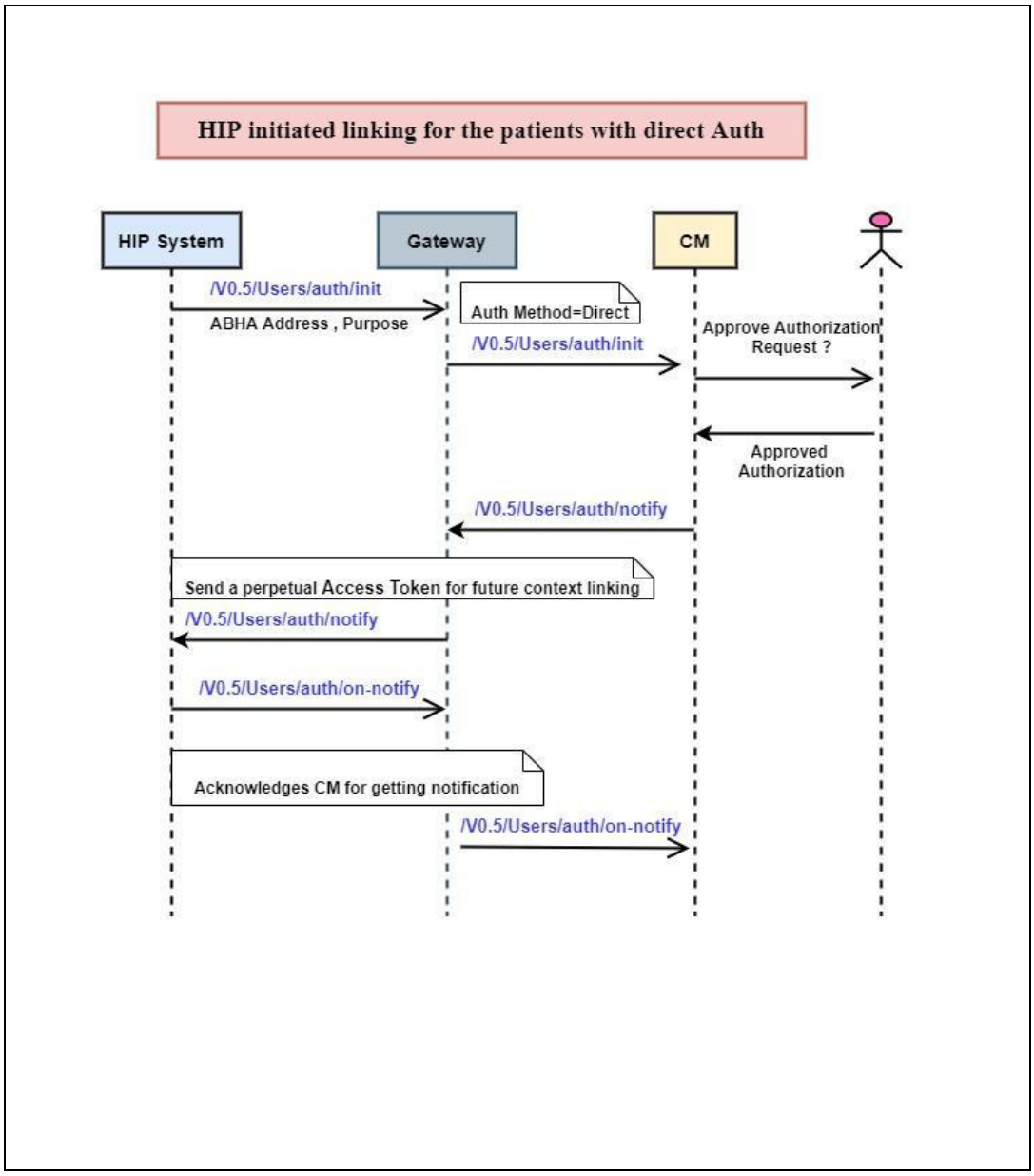
If the patient's preferred authentication mode is user demographic based, then the patient will have to share their name, YOB, gender which is forwarded to the CM. The CM validates the user details and creates a new access token just for the purpose of linking. This new access token is passed to the HIP. The HIP has to call the CM with the new access token to add the care contexts.



1.3 HIP initiated linking for the patients with DIRECT auth

In case of Direct authentication mode, HIP initiates the request with authMode DIRECT. This request gets added to the list of authorization requests on the consent manager which can be approved by the user. Once the user approves the direct authorization request, CM creates a new perpetual access token for the purpose of linking. This new access token is passed to the HIP.

The HIP has to call the CM with the new access token to add the care contexts.



2. User (Patient) Initiated Linking

In this process, the user searches for the HIP where the record resides using a PHR app. The discovery process occurs when a consent manager sends out a request to the concerned HIP to identify the patient in the HIP system.

- As part of the discovery request, the HIP will receive a list of verified identifiers along with name and demographic information, for example, the patient's mobile number, name, gender, year of birth and patient Id. The

fuzzy matching logic is performed via demographic information provided by the user.

- As response to the discovery request, the HIP returns details (care contexts) for any health records available for the user.

More details about discovery and linking can be found at https://sandbox.abdm.gov.in/docs/key_concepts

2.1 Discovery of Patient's information at the HIP

When the gateway calls an HIP system and requests for a particular patient's records with a set of verifiable Ids, the process of information discovery begins. Upon receipt of the request, the HIP health repository reverts with a set of care context labels (in masked form). The following flow diagram details the flows that take place during patient information discovery from the HIP perspective

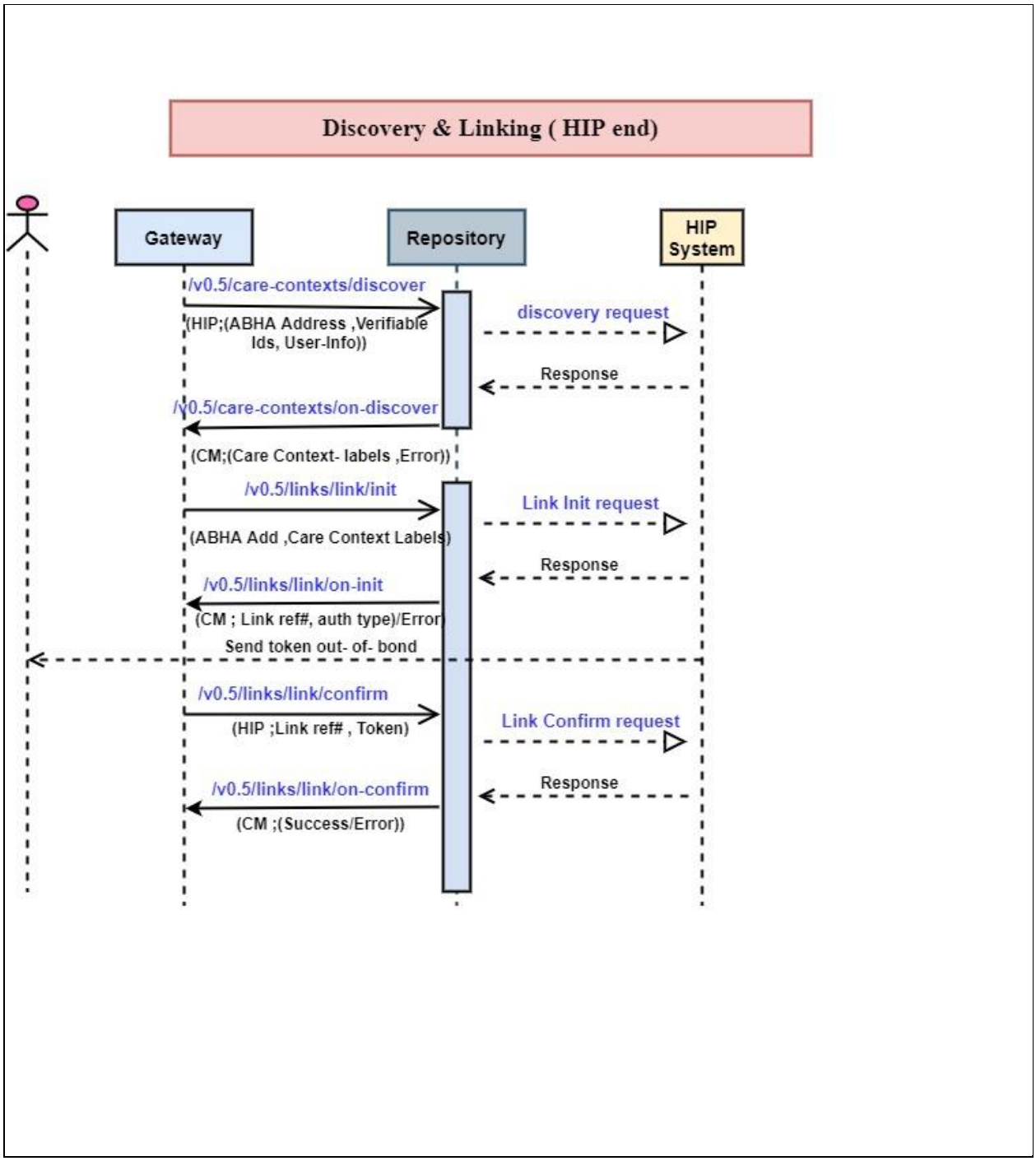
2.2 Verify the patient and link the care context as requested by the patient

This flow begins once a patient initiates a link request to the HIP to link the care context to the patient's Consent Manager's User ID. To enable the linking, the HIP system returns a link reference number along with the authentication type and its associated parameters.

The HIP system sends an OTP to the patient's phone number. Note, the phone number for OTP communication from HIP may be the same as verified by the CM or maybe a different number that the patient has chosen as preferred mode of communication with HIP - meaning it's up to the HIP to choose the phone number it sends OTP to. The patient, via patient app, submits the OTP received from the HIP system within the stipulated time. If the patient is successfully authenticated by the HIP, the linking is now complete. The following flow diagrams details the flows that take place while linking to a health repository representing an HIP

Note : Post successful completion of discovery flow, its HIP's prerogative to decide regarding implementation logic for saving the Verified identifier information (ABHA Address and ABHA number in case of KYC verified linking

The API sequence diagram about discovery flow and linking are given below.

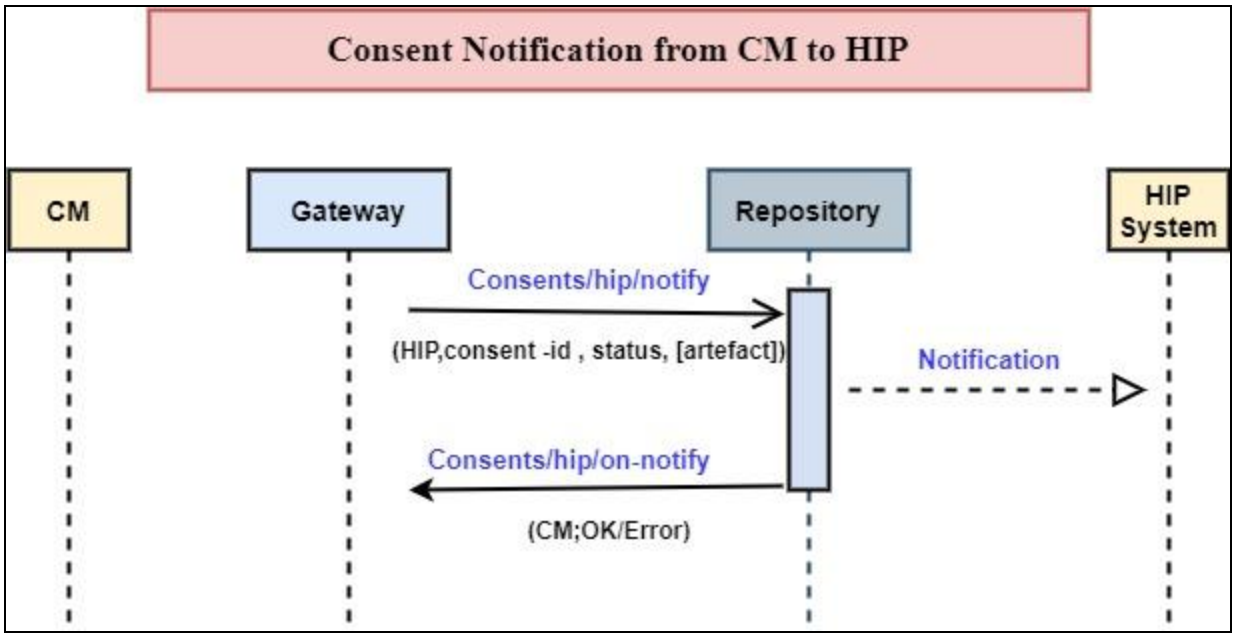


3. Consent Request notification from an HIU to Consent Manager

Obtaining the patient's consent for information sharing begins when the HIU system issues a consent request to the consent manager for the patient's data. The patient can view the request details, and choose to either grant consent or deny it.

The CM, notifies the HIU, and also sends a notification to the HIP of the patient's consent if granted.

The following flow diagrams detail the flows that take place when patient provides consent and the notification that is sent to the HIP



4. Data request and transfer

The data request and transfer process between the HIU, CM and HIP passes through the following three stages:

First Stage

- The HIU requests for patient's health information to the HIP, through the CM against a valid granted consent
- The CM assigns a transaction ID for the entire data flow and communicates this ID to the health repositories of the HIU and the HIP
- The HIU's health repository embeds three key elements within the health information request:
    - The consent ID corresponding to the consent artifact against which the information request is being made.
    - A data push URL, which is a callback URL that indicators where the information can be pushed by the HIP's health repository. This URL can be different from the HIU's access URL, provided at the time of registration with the gateway. The HIU can specify a

different URL for the data flow, in order to keep its identity secret to the extent possible.
    - Several parameters such as the date-time range for the requested and a set of encryption parameters for the HIP repository to encrypt the information. The Elliptic-curve Diffie–Hellman based encryption standard is used for encrypting health information.

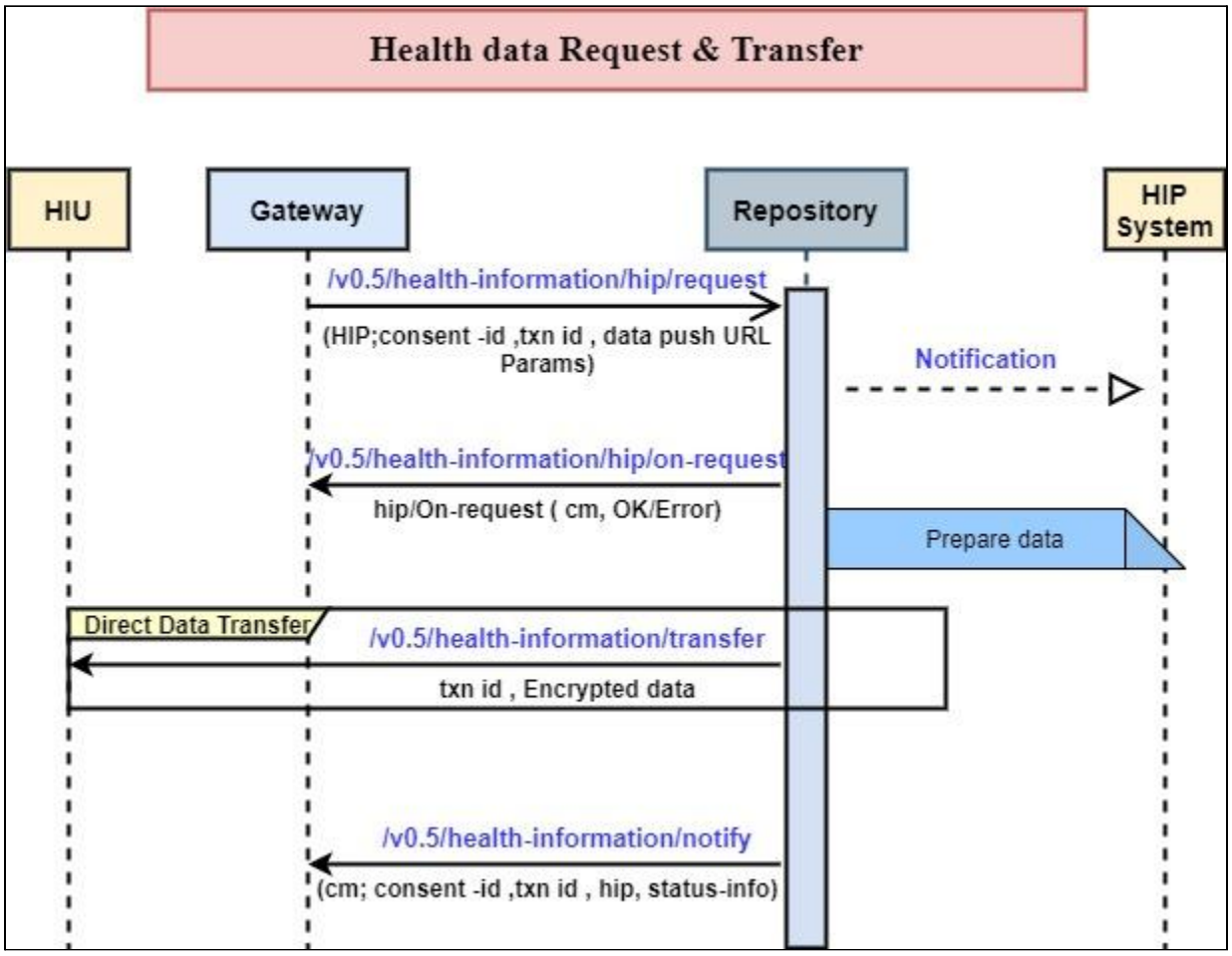
The HIU's health repository relays all this information to the CM through the gateway. From the CM, the information is relayed to the HIP's health repository (via the gateway).

Second Stage
Once the HIP repository receives the information, it first validates the information request, as follows:

- The HIP finds out if the consent ID corresponds to an expired, paused or revoked artefact.
- It then checks if the request's date-time range will correspond to the range for which the consent artefact allows information access. It also ensures that the encryption parameters are correctly defined.
- Once the above checks are made and validated, the HIP health repository encrypts the requested health records and forwards it along with the transaction ID to the HIU's data push URL, after signing the encrypted data with its long-term private key.

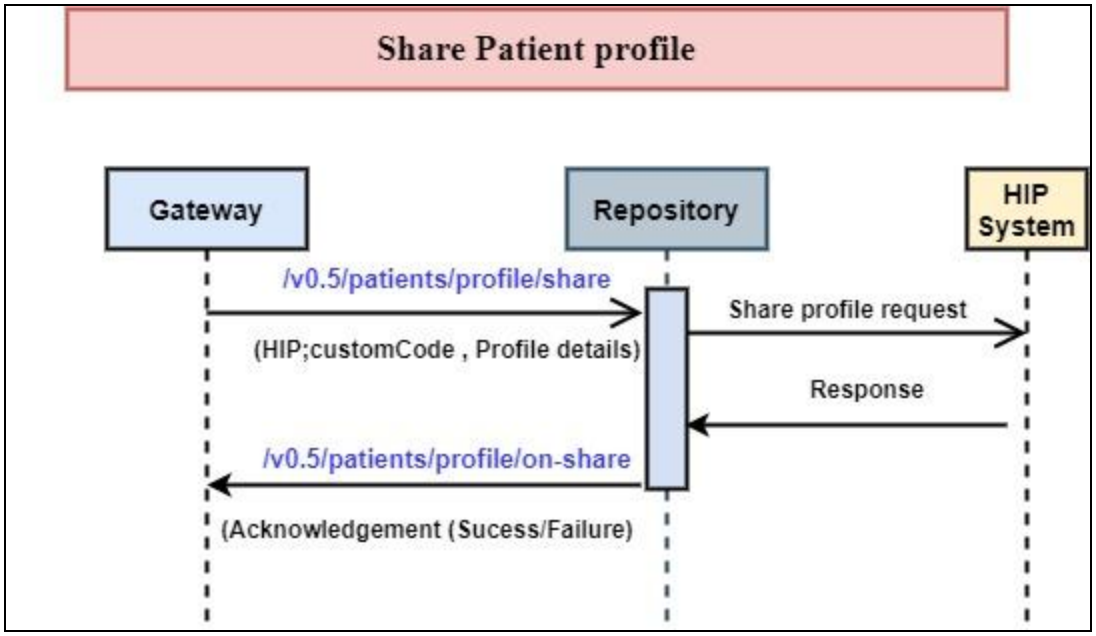
Third Stage
Finally, the CM receives notifications from both the HIP and the HIU. The HIP's health repository notifies the CM that the requested information was transmitted to the HIU. The HIU's health repository sends a notification that the requested information was successfully received, or that the request failed.

All above 3 stages that pertains to HIP are shown in the following diagram:



5. Share Patient profile with HIP:

Patients can share their profile details to a HIP via gateway. To achieve this, the gateway will forward the patient profile details to the concerned HIP and HIP will perform an acknowledgement to the gateway. The following flow diagram details the flows that take place during patient profile share from the HIP perspective.



To use this flow for an HIP, the following can be done.

Generate a QR code for the data in below format. For testing we can use something like Sample QR Generator

```
{
   "hipId": "<HIP ID>",
   "code": "<any extra information you want to send in profile, e,g counterId, Dept Id>"
}
```

- Go to ABHA Mobile Application, then **My Profile** and Find Scan option on the top right.
- Scan the QR code, the app should fetch details of QR code along with User profile details.
- Click on share which will make the gateway call the expected API on the HIP side
- The successful message would be shown on the app once the on-share callback is given

6. Send SMS to Patients (from HIP):

ABDM plans to ensure that users are aware of which health facilities are participating in ABDM. HRPs are expected to notify ABDM whenever a new health record is created using this API.

The expected User flow is given below:

- Patient visits a health facility and registers by providing Name, DoB, Gender and Mobile. Patient does not share any ABHA address with the facility
- If the Health Facility is participating in ABDM, then it will notify ABDM when there is a new health record for this patient. Only the mobile number and the HIP ID of the facility is notified. Facilities are identified by the facility's HIPCODE. This can be obtained by registering the facility using the Health Facility Registry and linking the facility to a ABDM approved Health Repository Provider Software
- ABDM will send an SMS to the user with a deep link

Following API must be be used by HRPs for the same -

/v0.5/patients/sms/notify2

```
{
  "requestId": "5f7a535d-a3fd-416b-b069-c97d021fbacd",
  "timestamp": "2022-02-08T10:48:02.530Z",
  "notification": {
    "phoneNo": "+91-9999999999",
    "hip": {
      "name": "Max Healthcare",
      "id": "DEMO_TEST_008"
    }
  }
}
```

/v0.5/patients/sms/on-notify

If the SMS notification is successfully sent to the patient then "status" will be "ACKNOWLEDGED" with no error. If the SMS notification is failed then "status" will be "ERRORED" with error.


```
{
  "requestId": "5f7a535d-a3fd-416b-b069-c97d021fbacd",
  "timestamp": "2022-02-08T10:56:37.221Z",
  "status": "ACKNOWLEDGED",
  "error": {
    "code": 1000,
    "message": "string"
  },
  "resp": {
    "requestId": "3fa85f64-5717-4562-b3fc-2c963f66afa6"
  }
}
```


The content of the message will be:

```
Dear Madam/Sir,

  <facility name> is now participating in Ayushman Bharat Digital Mission (ABDM).
   Your report at this facility is now ready. See your record by clicking on
   on phr.abdm.gov.in/uhi/<hipcode>

ABDM,NHA
```

More detail about deep linking can be found at

https://sandbox.abdm.gov.in/docs/deep_linking_phr

Annexure 1 :

The following APIs can be used to develop system specific user flows by the integrators.

Milestone 2: Building Health Information Provider (HIP) services to share digital records via Personal Health Records (PHR) app					
1		Session Api	{{GATEWAY_HOST}}/v0.5/sessions		
			CM initiated API		**Callback API to gateway by HIP**
2	**User-initiated linking of health records**				
2.1		Discovery of the patient's information	{HIP_HOST}/v0.5/care-contexts/discover		{{GATEWAY_HOST}}/v0.5/care-contexts/on-discover
2.2		Link initiation	{HIP_HOST}/v0.5/links/link/init		{GATEWAY_HOST}/v0.5/links/link/on-init
2.3		**Link Confirmation**	{HIP_HOST}/v0.5/links/link/confirm		{GATEWAY_HOST}/v0.5/links/link/on-confirm
			APIs call on the Gateway		**the HIP end by the Gateway**
3	**HIP initiated linking of health records**				
3.1		Get patient's authentication modes relevant to specified purpose	{GATEWAY_HOST}/v0.5/users/auth/fetch-modes		{{HIP_HOST}}/v0.5/users/auth/on-fetch-modes
3.2		Initialize Authentication from HIP	{GATEWAY_HOST}/v0.5/users/auth/init		{{HIP_HOST}}/v0.5/users/auth/on-init
3.3		Confirm authentication of users	{GATEWAY_HOST}/v0.5/users/auth/confirm		{{HIP_HOST}}/v0.5/users/auth/on-confirm
3.4		Notification API in case of DIRECT mode of authentication	{GATEWAY_HOST}/v0.5/users/auth/on-notify		{{HIP_HOST}}/v0.5/users/auth/notify
3.5		HIP initiated care-context linking for patient	{{GATEWAY_HOST}}/v0.5/links/link/add-contexts		{{HIP_HOST}}/v0.5/links/link/on-add-contexts
3.6		Notification recieved on gateway on adding context	{{GATEWAY_HOST}}/v0.5//links/context/notify		{{HIP_HOST}}/v0.5//links/context/on-notify
4	**Consent Flow**				
4.1		Notification of consents to health information providers consent request granted, consent revoked, consent expired.	{GATEWAY_HOST}/v0.5/consents/hip/on-notify		{{HIP_HOST}}/v0.5//consents/hip/notify
			API		**Callback API**
5	**Data Request and Transfer**				
5.1		Health Information Data Request	{{HIP_HOST}}/v0.5/health-information/hip/request		{GATEWAY_HOST}/v0.5/health-information/hip/on-request
5.2		Transfer the data at Data Push URL	{Data Push URL} received on above call /v0.5/health-information/hip/request		
5.3		Notification to gateway on Transfer of data to HIU	{GATEWAY_HOST}/v0.5/health-information/notify		
			API		**Callback API by gateway**
6	**Send SMS To Patient**				
6.1		Send SMS notifications to patients	{GATEWAY_HOST}/v0.5/patients/sms/notify2		{HIP_HOST}/v0.5/patients/sms/on-notify
7	**Share Patient Profile with HIP**				
7.1		sharing patient's profile details to HIP	{HIP_HOST}/v0.5/patients/profile/share		{GATEWAY_HOST}}/v0.5/patients/profile/on-share
8	**Status Notification (ACTIVE/DEACTIVATED/DELETED)**				
8.1		send patient's status (ACTIVE/DEACTIVATED/DELETED) to the HIP	{GATEWAY_HOST}}/v0.5/patients/status/on-notify		{HIP_HOST}/v0.5/patients/status/notify
9	**JWT Certificate Verification**				
9.1			{GATEWAY_HOST}}/v0.5/.well-known/openid-configuration		
9.2			{GATEWAY_HOST}}/v0.5/certs		
10	**Monitoring**				
10.1			{GATEWAY_HOST}}/v0.5/heartbeat		

Annexure 2:

Step 1: Register the nodal contact for the HRP

- Create Healthcare Professional ID (HPR ID) of nodal contact – You need to generate a Healthcare Professional Id (HPR ID) using your Aadhaar on https://hpridsbx.abdm.gov.in/register?origin=HFR . Please create your HPR ID as a Facility Manager. Once the 14 digit ID is generated, please set a password as well

- Once you have the HPR ID and the password is set, head to the swagger page of HPR ID https://hpridsbx.abdm.gov.in/api/swagger-ui.html#/. Expand the "Authentication" tab and select "/v1/auth/authPassword" API. Please fill in the request body and execute this API. Save the "token" returned in the response as it will be used in the header of HFR's create API

Step 2: Register the Health Facility

The Swagger document for the HFR APIs can be found at - https://facilitysbx.abdm.gov.in/swagger-ui.html

It is requested that you first check if the facility is already registered using the Search API or the HFR UI. If the facility is already registered, you can proceed with linking the facility as in the "Link the facility with your HRP software" step. In order to register a new facility pass all the required information to the create API. The table below describes the various fields / formats and validations for the create API.

The create API performs a search to see if the facility being registered is a possible duplicate. The search gets a list of facilities for the same State, District, PINCODE, facility ownership and then checks the levenshtein distance between the facility name and all registered facilities. The API call will fail if the levenshtein distance is less than 4 for any existing facility. If you are unable to register a facility and believe it is not a duplicate entry please write to integration.support@nha.gov.in

If the facility is already a part of AB-PMJAY, NIN or a CEA dataset, please pass the appropriate information during registrations.

Parameters for registering a new facility via API:

Params	Required	Description	Data type	Format if any
facilityName	Yes	Name of the facility that is to be created in HFR	String	Alphanumeric string that starts with an alphabet.
ownershipCode	Yes	Ownership of the facility	String	Accepted codes as specified in get-master-data API with type='OWNER'
stateLGDCode	Yes	State of the facility. The value should be from LGD	String	LGD Code. Get codes from LGD master data apis
districtLGDCode	No	District of the facility. The value should be from LGD	String	LGD Code. Get codes from LGD master data apis
subdistrictLGDCode	String	Sub district of the facility. The value should be from LGD	String	LGD Code. Get codes from LGD master data apis
Address	Yes	Address of the facility.	String	Alphanumeric string accepted along with few special characters (.-,/()_)

pincode	Yes	Pin code of the facility.	String	6 digit number
latitude	Yes	Latitude of the facility	String	Real Number ranging from -90.000000 to +90.000000 , with 1-6 decimal places.
longitude	Yes	Longitude of the facility	String	Real Number ranging from -180.000000 to +180.000000 with 1-6 decimal places.
facilityEmailId	No	Email of the facility	String	Proper format of email to be followed
facilityContactNumber	No	Mobile number of the facility	String	Should be a valid 10 digit mobile number
facilityLandlineNumber	No	Landline number of the facility	String	Should be a valid landline number ranging between 6-8 digits
facilityStdCode	No	Std Code of the facility	String	Should be a valid std code with no more than 5 digits
systemOfMedicineCode	No	System of medicine followed by your facility.	String	Accepted codes as specified in get-master-data API with type="MEDICINE" . In case you have multiple systems of medicine, send a comma separated string of codes.

facilityTypeCode	No	Type of your facility as defined by HFR	String	Accepted codes as specified in fetch-facility-type API.
abpmjayId	No	Hospital Id as allotted by AB-PMJAY Hospital Empanelment Module.	String	Should be a valid AB-PMJAY Hospital Id
ninID	No	National Identification Number	String	Should be a valid NIN Id of 10 digits
ceaId	No	Unique Id as per Clinical Establishments (Registration and Regulation) Act	String	Should be a valid CEA Id.
hrpSource	No	Source of information	String	Should be a valid HRP source as provided to you by HFR team
hrpSourceFacilityId	No	Facility Unique Id as exists in HRP or data source	String	

Specifications:

URL: https://facilitysbx.abdm.gov.in/FacilityManagement/v1.5/facility/create-facility

Request Method: POST

Headers:

Content-Type : application/json

Accept : application/json

Authorization : Bearer access-token

x-hprid-auth : token (Nodal contact token as obtained from Step 1)

Request Body:

```
{
        “facilityName”: ““,
        “ownershipCode”: ““,
        “stateLGDCode”: ““,
        “districtLGDCode”: ““,
        “subDistrictLGDCode”: ““,
        “address”: ““,
        “pincode”: ““,
        “latitude”:  ““,
        “longitude”:  ““,
        “facilityEmailId”: “’
        “facilityContactNumber”: ““,
        “facilityLandlineNumber”: ““,
        “facilityStdCode”: ““,
        “systemOfMedicineCode”: ““,
```

```
                “facilityTypeCode”: ““,
                “abpmjayId” : ““,
                “ninId” : ““,
                “ceaId” : ““,
                “hrpSource”: ““,
                “hrpSourceFacilityId” : ““
}
```

Response:

```
{
                “facilityId”: ““ ,
                “errorStatus”:[
                    {
                        “field”: ““,
                        “message”: ““,
                        }
                 ],
                “status”: ““,
                 “message”:
}
```

Step 3: Link the facility with your HRP software

To start receiving calls from the Gateway to your Health Repository system for this facility , you need to register the HIP / HIU with the ABDM gateway. You can add multiple HIPs under the same bridge.

The swagger document for these APIs are available at https://sandbox.abdm.gov.in/swagger/ndhm-devservice.yaml

a. Register the end point for the HRP where you expect callbacks from the gateway

API : https://dev.abdm.gov.in/gateway/v1/bridges

Header : Gateway Session Token

Request Body:

```
{ "url": "https://my-hrp-url.com"  }
```

b. Update the HIPs / HIUs that will be support by this HRP

API : https://dev.abdm.gov.in/gateway/v1/bridges/addUpdateServices

Header : Gateway Session Token

Id : Pass the id obtained from HFR registration in Step 2

Name : Pass the facility name – exactly the same as in HFR

Type : You can pass “HIP” or “HIU”.

Active : true

Alias: [“DUMMY”] - This is mandatory but currently not used

Request Body:

```
[
  {
    "id": "IN3410000403",
    "name": "AARUPADAI VEEDU MEDICAL COLLEGE AND HOSPITAL",
    "type": "HIP",
```

```
        "active": true,
        "alias": [ "DUMMY" ]
    },
    {
        "id": "IN0610000024",
        "name": "AASHIRWAD HOSPITAL",
            "type": "HIP",
        "active": true,
        "alias": [ "DUMMY" ]
    }
]
```


c. To see the list of registered HIPs for your Client ID use

API : https://dev.abdm.gov.in/gateway/v1/bridges/getServices

Header : Gateway Session Token

Success Response:


```
"bridge": {
        "id": "ndhm",
        "name": "ndhm",
        "url": "https://webhook.site/e16c8c61-252f-448c-9412-ed359aa75142",
        "active": true,
        "blocklisted": false
    },
    "services": [
```

```
  {
    "id": "IN3410000403",
    "name": "AARUPADAI VEEDU MEDICAL COLLEGE AND HOSPITAL",
    "type": "HIP",
    "active": true,
    "alias": [ "DUMMY" ]
  },
  {
    "id": "IN0610000024",
   "name": "AASHIRWAD HOSPITAL",
    "type": "HIP",
    "active": true,
    "alias": [ "DUMMY" ]
  }
  ]
}
```


A single health facility is allowed to use multiple ABDM compatible HRPs. For example a large hospital may use one system for its opd clinical records and a different software provider for its lab management.
Registering multiple HRPs for the same health facility is currently not allowed via APIs and will show the following error.


```
  "error": {
   "code": 2506,
   "message": Can't be serviced by multiple bridges }
```

If you are facing this error, please write to integration.support@nha.gov.in

Registration of ABHA apps, Health Lockers and Government programs (like CoWIN) must be done by the ABDM team. Do not register them via the above APIs.

ABDM allows HIPs to replace the contents of the label shown in ABHA apps for additional info to be passed (for an example see CoWin which uses it to pass the mobile number that was used to register on CoWIN). If you need to use this feature for your HIP contact integration.support@nha.gov.in