

Operationalising Unified Health Interface (UHI) in India

Synopsis

The National Health Authority (NHA), on 14th December 2022, published a consultation paper to invite comments on the market rules governing the Unified Health Interface (UHI). UHI is proposed to be a foundational layer of the Ayushman Bharat Digital Health Mission (ABDM) and is envisioned to enable interoperability of health services in India through open protocols. Details of ABDM are available on <https://abdm.gov.in/>. The complete text of the consultation paper can be downloaded here (<https://abdm.gov.in/publications>); this document is primarily intended to provide an overview and summary of the key concepts in the paper.

Setting the Context: Interoperability in Healthcare

The visionary project of Ayushman Bharat Digital Mission was conceived in 2017 when the National Health Policy was published with an objective to digitise the Indian healthcare ecosystem. ABDM is conceptualised as a set of ‘digital building blocks’ which is a set of extensible frameworks that different stakeholder groups can use for designing, developing and delivering healthcare services at scale. These building blocks include ABHA Number, Registries, Health Information Exchange and Consent Manager (HIE-CM), Unified Health Interface (UHI), and more. As the ABDM architecture evolves, it is important to have in place clear guidelines on how different elements of each of these building blocks will be operationalised in a fair, efficient and transparent manner.

The objective of the paper is to seek feedback on how different elements of UHI should function. Inviting public feedback will allow for early course correction, which will in-turn engender trust in the network and enhance market adoption. The feedback received through this consultation will be used to refine the functionalities of UHI so as to limit any operational issues going forward.

Unpacking Unified Health Interface

The UHI is envisioned as an open protocol for various digital health services. The UHI Network will be an open network of EUAs and HSPAs. It seeks to ensure that a digital health service can be delivered between any EUA with any HSPA in this ecosystem. The best example of a similar interoperable model is from the financial services domain - the Unified Payment Interface. Today, users can choose any end user application (eg: BHIM app, Paytm, PhonePe, etc) to make seamless payments from their bank account or wallet to any other bank account. Similarly, through UHI enabled applications, patients can discover, book, conduct and pay for services offered by a variety of participating providers from any application of their choice.

UHI Protocols in Action

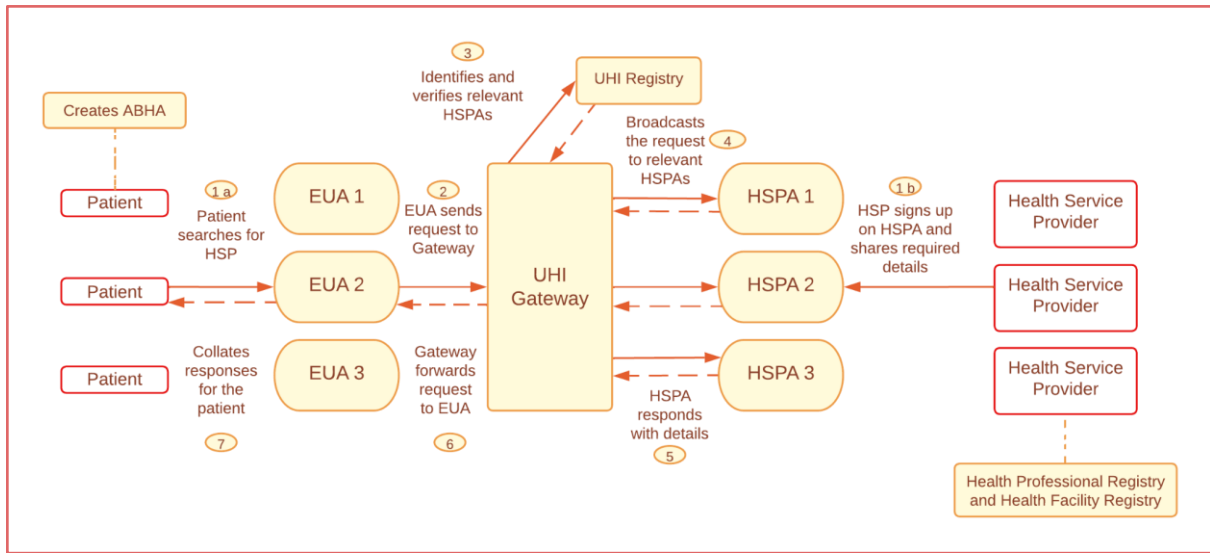


Figure 1: Transaction on UHI Network

Elements in operationalising Unified Health Interface

(a) Search and Discovery

The UHI network enables HSPAs to declare the digital health services they want to offer on the network, and the end users can discover these health services, their pricing and service availability using any EUA. *Figure 4* summarises the search and response process on the UHI Network.

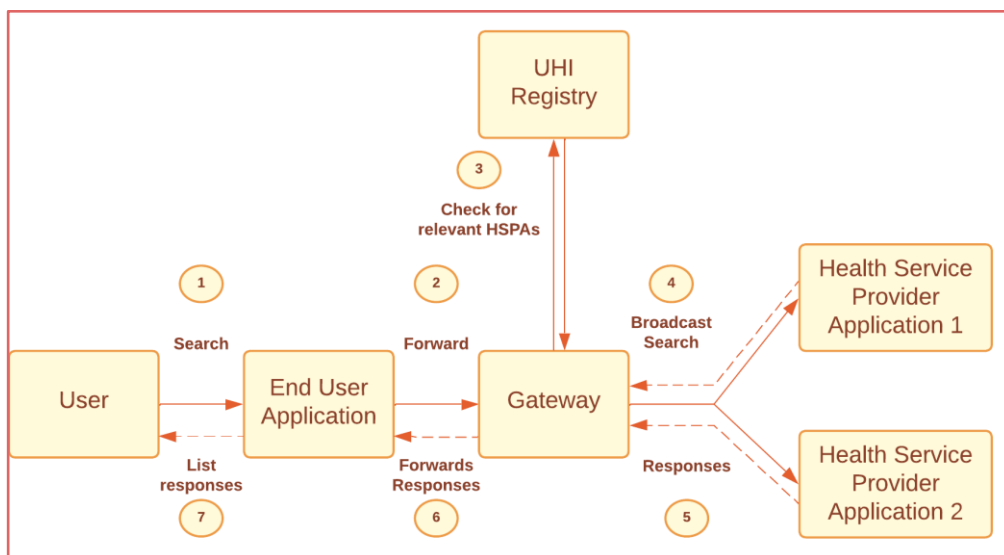


Figure 4: Search and Discovery process on UHI

To prevent any preferential treatments in the search & discovery process, the UHI Network Policy has guidelines in place that all the NPs are required to follow. The HSPAs are responsible for providing accurate and complete information; the Gateways are required to relay the search discovery request to all relevant registered HSPAs without any personal discretion; and the EUAs are required to faithfully display all the results received from the Gateway.

While the EUA is free to rank the results in any order keeping in mind the preferences of the consumer, the app should clearly publish the criteria used for the same. Further, if the EUA allows HSPs or health facilities to promote their ranking on its platform, it should publish a transparent process by which they can do so as well as clearly indicate the promoted results for the benefit of the user. The EUAs may also provide users the option to sort the results according to price, proximity, etc. for their convenience. This will allow the users to make their decisions in an easy manner.

(b) Service Booking

A user books a service after they receive the search results of the service they wish to avail. Upon receiving the search results on the EUA, the user can proceed to select the HSP of their choice and confirm their booking (Figure 5).

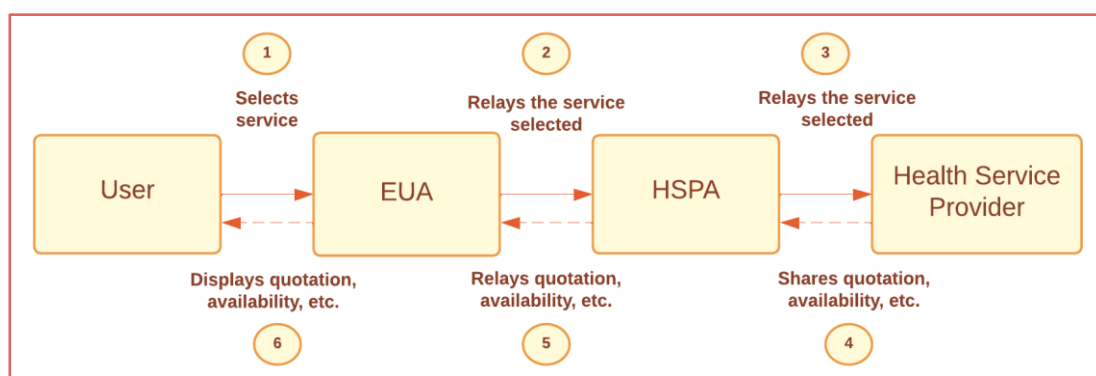


Figure 5: Service Booking process on UHI

As a part of the booking confirmation, the transacting EUA and HSPA enter into a transaction-level contract which lays down terms pertaining to the rights and obligations of both Network Participants in relation to the booking, including settlement terms, rescheduling and cancellation terms, among others. The transaction-level contract is digitally coded and is executed through a protocol during the confirmation of the booking. The contract, upon being signed by both the Network Participants, is binding on the transacting entities and violation of the same can be a ground for raising a grievance through the proposed UHI Grievance Redressal Mechanism.

(c) Service Fulfilment

Once a user has booked a service, it is the responsibility of the HSP to deliver the service as per the time, price and other parameters shared with the user during service booking. To fulfil a teleconsultation between a patient side and provider side application, UHI offers WebRTC as a video solution and leverages its message API to establish a video connection between EUA and HSPA. While this is available on the UHI sandbox, platforms are not mandated to use this solution for service fulfilment. In case there is any rescheduling, cancellation or no-show, the refund to the user should be processed as per the terms and conditions of the booking. Upon the completion of the service, the HSPA must report completion of service fulfilment and this would be confirmed by the EUA.

(d) Payment and Settlement

There are two payment & settlement flows proposed. Figure 6(a) and Figure 6(b) describe the two flows. It must be noted that, in both the cases, the collector will be the one settling it as well. Further, it is also important to note that when the collector receives payment from the user, the amount will be held in a nodal-like account until the settlement advice is prepared and shared. It is only after receiving the settlement advice the amount is settled as per the terms in the advice. This is to ensure that the payment received is not used for other expenses in the meantime.

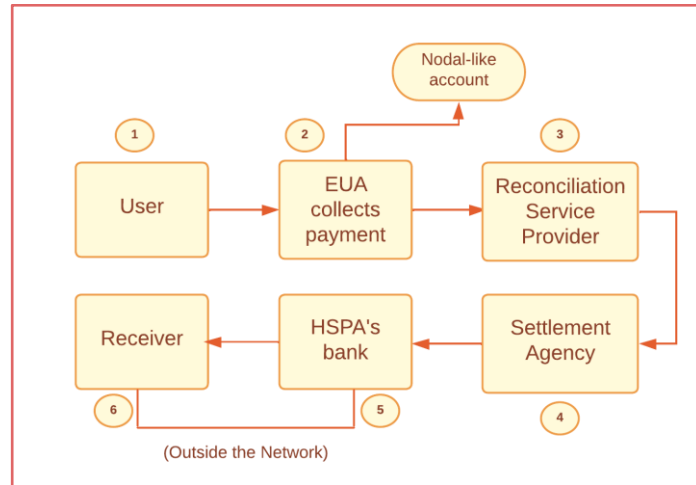


Figure 6(a): Payment & Settlement process on UHI (EUA collects)

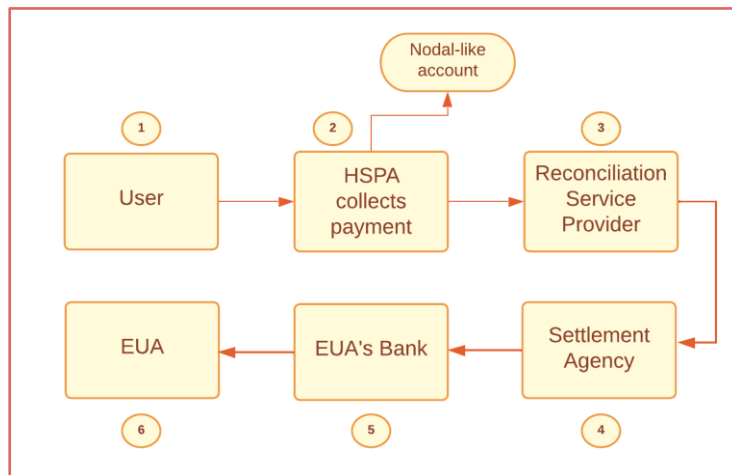


Figure 6(b): Payment & Settlement process on UHI (HSPA collects)

(e) Reschedule and Cancellation

Transparency in rescheduling and cancellations is crucial to establish trust in the UHI Network. It is the responsibility of HSPAs to provide clear and comprehensive rescheduling and cancellation policies. These policies are communicated to the transacting EUA as a part of booking confirmation. The UHI Policy Network requires HSPAs to disclose their terms with respect to rescheduling and cancellation at the time of service booking confirmation. These terms are also coded into the Transaction-level Contract for easy implementation of the same. These terms are binding and any party can raise a grievance in accordance with the grievance redressal mechanism of UHI in case of a breach of these terms.

(f) Grievance Redressal

A robust grievance redressal mechanism plays a crucial role in building trust in the network. Timely and satisfactory resolution of grievances is an important element that enables the network participants to transact confidently on the network. It is with this objective that a comprehensive grievance redressal mechanism is proposed that allows for a structured and transparent process by which entities can raise and escalate grievances till they are satisfied with the resolution proposed. Figure 7 outlines the proposed grievance redressal mechanism.

The grievance may be raised by the user or the health service provider. The UHI grievance redressal process is has 4 levels:

- 1) Internal Grievance Redressal Mechanism
- 2) Resolution through Grievance Redressal Officers (GRO)
- 3) Resolution through ODR Service Providers
- 4) Resolution through legal remedy

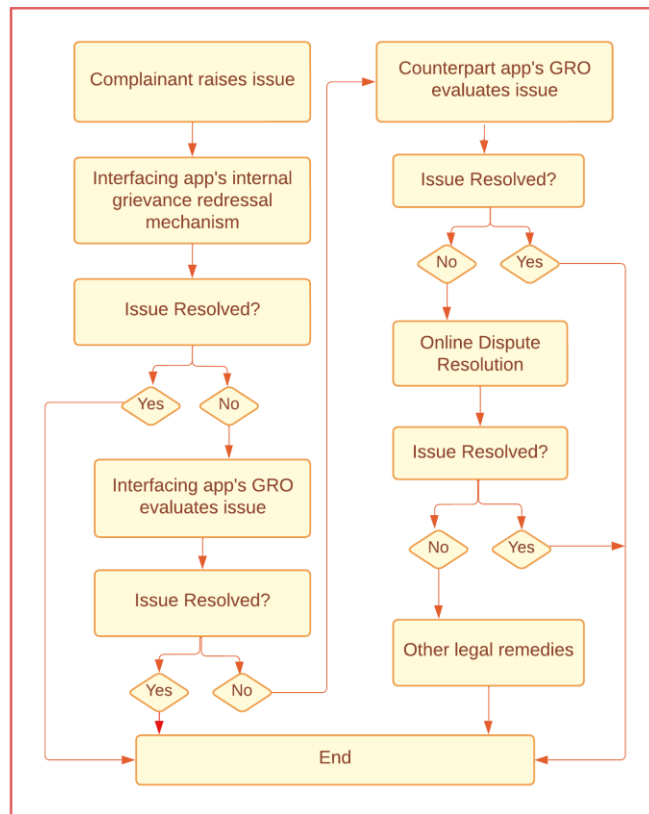


Figure 7: Grievance Redressal process on UHI

(g) Miscellaneous

(i) Metrics

The UHI Network Agreement will entail the metrics that the participating EUAs and the HSPAs will have to share with NHA in an anonymized and aggregated manner to help monitor service fulfilment and gain service insights. The proposed metrics will be important to not only track the

growth of the UHI Network but also contribute to the larger aggregate health datasets. The metrics to be collected are still under development and will be released in time.

(ii) UHI's Common Taxonomy

Taxonomy refers to a system of classification. Adopting common taxonomy structures in the healthcare ecosystem enables interoperability between different healthcare applications and health management information systems. A common taxonomy will enable efficient and accurate exchange of search requests and responses in an easy and quick manner. In the absence of such a structure, communication between different applications will be inefficient and slow since each entity will have a different classification structure in place.

(iii) Scoring

The UHI Network Policy does not lay out the guidelines for enabling scoring of either health service providers and health facilities or the users. However, the NPs are free to create and implement a scoring mechanism in compliance with the law of the land.

Summary and Conclusion

This consultation paper seeks to invite comments from stakeholders on the market rules that govern different operational elements of UHI and the ways in which they can be made more robust. Market participation at early stage development of the UHI building block can help prevent future roadblocks in implementation, and help make adoption faster and easier for the market players. Hence, we invite stakeholders to share their valued comments on the questions for consultation and play a role in shaping India's digital healthcare ecosystem.

All stakeholders are encouraged to provide comments on the issues raised in the paper, preferably after they have reviewed the full text of the consultation paper. If there are any other issues that the public would like to raise or comment on, they are invited and encouraged to do so. Please note that this paper is only a summary paper. All stakeholders are requested to please read the full text of the consultation paper here (<https://abdm.gov.in/publications>) for any further clarification. The Paper is open for public consultation till Friday, 13th January 2023.