

HEALTHCARE-INSURANCE INDUSTRY PILOT (HIIP)

Questions and Answers – 8 April 2021

Observations and Commentary

We received 570 questions and have chosen to answer fewer than half.

1. Some made statements instead of asking questions. Some asked questions regarding opinion instead of fact. We saw many questions that indicate a lack of understanding of the problem statement or use case. We did not answer these.

Bidders should consider how best they can inform themselves of the problem statement or use case, or withdrawing if they cannot. Anyone that wants to withdraw may inform us anytime.

2. We received questions on who will contract, who will evaluate, what are the roles within the alliance etc.

You may treat the alliance as one, and need not be concerned at this time on these matters internal to us. You must propose a governance and ownership model in your bid, and we will engage the top scoring bidders on this. We will make the contracting party clear to the highest scorers at the final stage.

3. We received questions on how the solution should look like. These are for bidders to propose and are a core part of the scoring.

See observations and commentary for these questions.

1. Who is the contracting Legal Entity? Can we assume that General Insurance Association (GIA) of Singapore shall designate one Staff member with appropriate financial authority to be the Principal Contact?
2. Which entity will be chairing this engagement?
3. Who will be evaluating the Tender Response?
4. Who will be the Contracting Party?
5. Who will manage the project from the participating organisations?
6. Who will be the contracting party - GIA, LIA, IHIS, MOH or others?
7. Assume that a consortium is formed for this engagement, with the various roles as listed in the bidder info form, e.g., Healthcare application software provider, Health insurance claims service provider, Health insurer, Healthcare provider and Healthcare business process consultancy. Is there a preference on which role should: i) be the main contracting party at the MVP phase, and ii) take on the ongoing operations and maintenance of the post-MVP solution?

HEALTHCARE-INSURANCE INDUSTRY PILOT (HIIP)

The answer to these questions is "yes".

8. Can a single bidder propose more than one solution?
9. Please confirm If the insurer (GEL) system can allow APIs

Elaboration: Vendor needs to propose the set of API on HIIP to be onboarded into the consumer environment.

10. Does the platform have to aggregate policy and benefit coverage from varies insurers?
11. Are self-insured employers or worker compensation groups also expected to integrate into the current proposed system?"
12. We assume that for a pilot of 6-month implementation duration, we will leverage the existing Policy and Claims engines in place with Greater Eastern for MVP, please can you confirm?
13. Should we assume Part 3 section F Service and security requirements is applicable to this MVP in their entirety?
14. Is there an expectation to standardise the format of the "the detailed final bill as well as the patient's copy of inpatient discharge summary ("IPDS") or its equivalent" (as stated in Para 4.2.7.2 of the CFP) and "additional medical details or records of the patients which are deemed necessary for claims adjudication" (as stated in Para 4.2.7.3 of the CFP) as part of the proposed solution?

Elaboration: Refer to 4.6.2

15. Is there an expectation that the post-MVP solution will be able to flag out and resolve duplicate claims, i.e., automated allocation of the final payout from each insurer up to the claim amount?
16. Will the claim settlement priority rule described above to be applied the same at the point of patient's admission for the calculation on waiver of hospital deposit?
17. Can there be only one patient's consent form if the same insurer is insuring the patient for both Shield and GHS?
18. Under 6.1.3 - Will HRN/Invoice #, Healthcare Providers' code, Insurers' Code, Status, Datetime info be considered as metadata (ref 6.1.3)?
19. Are there any standard coding systems for diagnosis, procedures, services, supplies, medications being used by these hospitals?
20. Are there any standard coding systems used in current claim submission from hospitals to GEL?
21. Can a bidder be part of multiple consortiums?
22. Are APIs available from GEL for policy queries (data relevant for hospital stays and related outpatient claims, post inpatient stay) from their IPs and GH&S insurance systems?

Elaboration: We are open to discuss the requirements at attribute level.

HEALTHCARE-INSURANCE INDUSTRY PILOT (HIIP)

23. Is Work Injury Compensation insurance in scope for this project?

Elaboration: But HIIP MVP only covers IPs and GH&S.

24. Does “existing B2B gateways or equivalent” mean existing API/Interface or the API gateway only.

25. The “required infrastructure and platform” should be part of the pricing model?

The answer to these questions is "no".

26. Will insurer move away from headcount insured policies?

27. Would the incumbent MediNet be used to validate the benefits of our solution during Pilot (3-6 months)?

28. Do we need to migrate historical records?

29. Is there any flexibility for the proposal timeline to be extended beyond 26th Apr?

For these questions, refer to 3F of HealthTech IM

30. For the service requirements, is this from the perspective of the Pilot Phase between 3 to 6 months with regards to:

- a) Change requests
- b) Support arrangement for Level 1,2, 3 including turnaround time
- c) Day to day maintenance of the platform

31. With reference to Non-functional requirements: Please clarify if GIA / LIA has defined any target benchmarks / KPIs (e.g., for solution performance / reliability / scalability etc.) and if yes, can you please share

32. What is concrete requirement of performance, reliability, and availability?

33. Is there any minimum requirement about SLA?

34. Are there any targeted SLAs for service turnaround at each stage of the patient journey, hospital journey, insurer journey?

For these questions, refer to 3E and 3F of HealthTech IM

35. In terms of claims data storage / encryption within our platform, are there any additional requirements that is beyond what is being suggested by MAS and MOH?

36. Can you provide the Non-Functional requirements that the technical solution should minimally comply with in relation to section 4.3.3 and 4.3.4?

HEALTHCARE-INSURANCE INDUSTRY PILOT (HIIP)

These questions relate to integration. Refer to 4.2.4 to 4.2.7. APIs will be exposed by insurers and hospitals to HIIP solution for those data exchange in order to facilitate the 3 stages.

- 37. Please confirm regarding the overlap with NEHR - we note that insurers require medical / health records for claims processing. Please help clarify.
- 38. If we should assume that the required medical / health data can be provided by Singapore's NEHR (and extent to which NEHR provides such coverage) OR
- 39. if we need to retrieve these datasets from individual hospital systems and transition to NEHR over time (please provide indicative timelines if so)
- 40. What are the datasets shared between the healthcare providers and the insurer?

- 41. Will the healthcare providers be providing digital copies of supporting medical documents like X-rays, MRI, etc.? Is HIIP expected to enable the exchange of such digital documents between healthcare providers and insurers for this MVP? What format of digital information should be exchanged? I.e., PDF, JPG, API-JSON?

Elaboration: Medical documents will not be exchanged for this pilot.

- 42. Overall, what would be the existing systems vendor is expecting to integrate (other than NDI, E-Claims)?
- 43. What billing system does KKH use? And what are the APIs available for integration?
- 44. What billing system does NUH use? And what are the APIs available for integration?
- 45. What billing system does SGH use? And what are the APIs available for integration?
- 46. Will Insurer/healthcare providers provide APIs for information exchange with regards to claims, policy, patient, and treatment?
- 47. Do these include Radiology reports, images or will this be limited to only document type files OR any other formats, please specify.

Elaboration: Medical documents will not be exchanged for this pilot.

- 48. Which APIs will be made available by the Insurance and Healthcare Provider?
- 49. What are the systems which might potentially require integration for the various organisations? (e.g., Allscripts Sunrise™ Clinical Manager, SAP-ISH, etc.)
- 50. "For GH&S, the final bills and LOGs are submitted by the healthcare providers to the insurers via hardcopy and in batches".

In the above context, please explain whether the source of hardcopy is available in electronic format or only available in physical format.

If the source available only in physical format, can we assume health care providers will enhance their systems to capture data in electronic formats.

- 51. Will the healthcare providers be willing to enter the information on the Admission form and Care Cost form into our proposed system solution? Or they will only attach the forms? Are the hospitals open for interfacing for the required information to be extracted or integrated?

HEALTHCARE-INSURANCE INDUSTRY PILOT (HIIP)

52. Under 6.1.1- Can the data exchanges between each party go thru via secure webservice API interface. Is this available for each party? If it is not, is it via file upload?

Elaboration: For compliances, refer to 4.3.3 and 4.3.4

53. Under 6.1.3- if data exchange is file upload mode, data storage will be required for processing. Would this be acceptable?

54. Can we assume that the RCM vendor of KKH, NUH and SGH will do the interface with our solution to meet the objective of HIIP?

55. Under 6.1.1 in CFP - how many existing B2B gateways does each hospital has for interfacing for HIIP?

56. Is it a requirement for the various hospital documents (i.e., medical reports) to be digitalized (electronic documents) as part of the system?

57. For OCR of claims to achieve "auto claims submission" – is the expectation that hand-written claims documents / forms are to be supported?

58. Is the end user / health care institution required to upload receipts, reports and supporting documents?

59. Under 6.1.1 in CFP - '.... existing B2B gateway or equivalent', please elaborate what is this equivalent for GEL and the organisation involved in HIIP.

60. For each hospital, is there more than 1 interface needed? If it is more than 1 interface, how many in total?

61. Will separate interfaces be required to connect to any of the 3 hospitals or GEL finance systems or any other additional systems, besides systems for admission, medical records, and insurance policies? If so, how many such interfaces will there be?

62. One of the desired outcomes is for insurers to be able to get diagnosis, treatments, and other medical records from the hospitals. Are the 3 hospitals able to provide such requested information digitally today?

63. Will functional descriptions of B2B gateways or equivalent be provided prior to submission of proposal, in terms of how 3rd parties such as our proposed system can query information or provide information to the participants' systems.

64. Any interface or integration required to insurers' TPAs for MVP and post MVP rollout. If so, how many such entities and do they have similar B2B interfaces or APIs we can utilize?

65. Please help to specify what are interfaces that will be used in the system (REST API, SOAP, GraphQL, etc). This will help us develop the best solution for this use case.

66. Are the participants' systems API-ready to integrate into the platform? E.g., hospital billing data is exchanged via API directly from hospital system.

67. 2.17. Can we get documentation on what services are supported by the participants' B2B gateways or equivalent? [6.1.1]

68. What is the list of systems that need to be integrated with? On the insurer's side? On the hospital's side?

HEALTHCARE-INSURANCE INDUSTRY PILOT (HIIP)

69. What are their integration capabilities? SOAP, REST web services? Other?

Elaboration: Bidder to propose and justify if specific interface protocol is needed.

70. For the medical history documents - payers request a medical questionnaire from past treating physicians - is the platform also expected to facilitate data entry by the physicians directly on the platform (e.g., entering details on the portal directly)?

71. Do the hospitals have the ability to provide access to their HMS, or they are expected to logon to the new platform and key in information / upload information as needed

These questions relate to scope of patients. Paediatrics, minors, children, and physically disabled patients are in scope. Non Singpass users are out of scope. The expectation is to follow the existing process of asking the parent, legal guardian, or next of kin to authorise / give consent.

72. Is there a target scope of patients for the MVP? Are paediatrics/ physically disabled patients in scope? If yes, what is the expectation for patients who are paediatrics and physically not capable of providing consent to release medical details via the Singpass App?

73. In the case where the patient is a minor/children, can the consent be provided through either one of the parent's Singpass account?

74. If the consent can be provided behalf through one of the parents, does it have to be the policyholder for the shield policy?

75. Are non Singpass users considered out of scope for this project? For children under 15 years of age, are they out of scope for this project?

76. If a child is below 15 years old, and the policy is purchased by parent, and since people under 15 years old do not have access to Singpass, we will exclude this scenario in the solution. Is this a right assumption?

For these questions, the current protocol is REST API+HTTPS+TLS1.2. Future protocol is to be proposed by the bidder.

77. In terms of connectivity, will you be able to share the current API infrastructure/ protocols in detail that will allow for connectivity

78. Is there any electronic communication network between these hospitals and GEL, such as X12 EDI or FHIR?

79. How do we submit claims through existing B2B gateway?

80. Will all the interfaces to the hospitals be FHIR HL7 interfaces or some proprietary APIs provided by the hospitals?

HEALTHCARE-INSURANCE INDUSTRY PILOT (HIIP)

For these questions, transfer of payment is taken care separately by the insurer as it will continue to utilize the existing payment infrastructure for payments to the hospital. There is a need for the payment status to be displayed.

81. Please suggest, if the solution should facilitate the payment transfer or just provide confirmation details of the remittance?
82. Under item 4.2.7.4- It requires the proposed solution to enable insurers to settle the payment electronically. Is payment gateway solution expected within the proposed solution or the transfer of payment is taken care separately by the insurer?
83. After activating payment against a claim, the payment will be done in another system but not HIIP? HIIP only retrieves the status to show? How many statuses for payment? Are there any paid times for one payment amount?

Bidders are asked to propose solutions to these questions.

84. As part of the requirements gathering, I understand there is a need to connect with the proprietary platforms owned by hospitals and GE; I would like to understand at a high-level basis; the current IT and data construct. whether it is API ready and block chain enabled/ encryption arrangements (if possible)

Elaboration: Necessary APIs are ready to be consumed, it is up to vendor to propose whether block chain should be adopted. Bidder needs to propose the new set of APIs for HIIP that needs to be onboarded onto the consumer's environment (insurer & hospital).

85. As per RFP section 1.2. It will be deployed as a live pilot involving actual patients who fall within the HIIP scope, and no parallel runs with existing systems are expected unless the specific functionality is not provided for under HIIP. Question: Kindly clarify what will encompass parallel run mentioned in section 1.2
86. As per RFP section 4.2.7.4. Insurers are required to settle the payment electronically within the stipulated period agreed with the healthcare providers. Question: Kindly confirm that Insurers will settle actual claim payment electronically through their existing payment gateway and Insurers will only notify the healthcare provider regarding claim payment through HIIP.

Elaboration: Most insurers use online and batch infrastructure such as PayNow & Direct Credit for claims disbursement. Bidder can propose what information that needs to be shared with HIIP.

87. Please suggest, how consent is routed through insurers? Do you mean sent to insurers?
88. Please suggest, if the application is supposed to be integrated to a bank/ FS institution for reflecting payment status?
89. What is your current preference for cloud (ex. AWS, Azure, GCP)? We understand it would be GCC?
90. Please let us know, if you have any preference for the cloud services such as containers, serverless, etc.
91. Please suggest, if are you open to cloud-based SaaS services? Are there any that you are already exploring or in conversation with?

HEALTHCARE-INSURANCE INDUSTRY PILOT (HIIP)

92. Is there a preferred UI/UX Modernization Guidelines or operational constraints why MediNet is targeted for lower resolution (e.g., 1024x768) terminals or User Interfaces?

Elaboration: Bidder to propose the UI/UX

93. Is there a preferred Mobile Application such as HealthBuddy, HealthHub etc for the Patients (or Parents to login) as an independent distribution channel to apply MCAF/Consent Forms?

94. With reference to the latest MyInfo API, could the Parents login to SingPass and apply MCAF/Consent Forms on-behalf of their "childrenbirthrecords" or "sponsoredchildrenrecords" based on the sample at <https://sandbox.api.myinfo.gov.sg/com/v3/person-sample/S9812381D?>

Elaboration: Not for pilot phase. Bidder may propose for post-MVP stage.

95. Is there a preferred Cloud Service Provider such as The Government Commercial Cloud Service for the Consortium? And would OCBC Group Regional Data Center be the preferred infrastructure services provider for Great Eastern Life (GEL)?

96. Is Blockchain a mandatory component in enabling certain solution components for HIIP?

97. Is the solution expected to cover verification of the NOK-patient relationship?

Elaboration: Not for pilot phase. Bidder may propose for post-MVP stage.

98. What are the expectations on leveraging / coming alongside other healthcare initiatives (e.g., National Billing System, National Financial Counselling System, cluster-level patient management transformation projects)?

99. In addition to insurer, admissions officer, business office executive, medical records officer, patient service associate, healthcare provider and patient/NOK, are there any other personas we need to consider?

100. Are any specific channels prioritized? (e.g., Mobile, Web, Hospital Portal)

101. Please confirm if the insurer (GEL) system currently allows automated decision making with the right inputs

102. Does the scope include new mobile app development for Patient? (Refer to the use case of provide consent and enquiry claim status, notice balance payment etc). If no, can help to confirm if its access by patient thru Healthhub mobile app? If yes, the enhancement on Healthhub app is in the scope?

103. Can please further elaborate the expectation of the notification? SMS / Email? In individual / batch?

104. Inter-Operability is expected to be enabled, however the specifics of what will Inter-operability mean and the standards for data etc to be followed is not clarified in the document?

HEALTHCARE-INSURANCE INDUSTRY PILOT (HIIP)

105. Documentation code or price sets:

- a) What type and version of the procedure and diagnostic codes do you currently use?
- b) Are there any non-standard (dummy/customised) coding sets?
- c) Is there a national formulary for medications, consumables and materials that are used?
- d) Is there a procedural tariff set or maximum price charged that is currently being used by the Insurers and/or nationally?

Elaboration: Bidder to include plan and approach on how they are going to harmonize the data between insurers and hospitals as part of the solution.

106. Data storage: In reference to the following statement from the proposal "The proposed solution shall not store any data in a centrally consolidated physical and/or virtual location, except for necessary metadata Can you explain in detail what data elements cannot be stored? Clarify in detail how data is supposed to be stored?"

Elaboration: Bidder to propose and justify the usage.

107. Will it be mandatory for insurers, hospitals, and clinics to integrate into the proposed system?

Elaboration: Bidders should plan for the solution to be a national infrastructure for the healthcare and health insurance sectors.

108. What is the anticipated roll out timeline?

109. What should be the mode of this notification? Ex. SMS, email etc.

110. Is there a preferred technology stack?

111. Is there a preference for open-source vs licensed software?

112. Please clarify the mode which patients are able to enquire status of claims digitally. I.e. Web Application/ Mobile Application.

113. For administrative staff connecting to solution, are they expected to authenticate via Singpass as well.

114. In order to retrieve coverage information and complete the project in 6 months, GEL would require some mature level of digital capability. Can details be provided on GEL's existing digital interfaces? E.g., APIs or other protocols?

Elaboration: GE API Gateway performs Identity Introspection to ensure data is released to the authenticated requestor. Bidder needs to elaborate how sensitive data can be shared on HIIP.

115. Will the vendor be allowed to store transactional data (i.e., bill details) with no reference to any identifiable personal information (i.e., patient NRIC, patient name, etc.)?

Elaboration: Technically no but bidder may propose and justify for the usage.

HEALTHCARE-INSURANCE INDUSTRY PILOT (HIIP)

116. Will the vendor be allowed to store medical data (i.e., diagnosis, treatment) with no reference to any identifiable personal information (i.e., patient NRIC, patient name, etc.)?

Elaboration: Technically no but bidder may propose and justify for the usage.

117. Does the vendor need to provide call centre support (level 1 support) to the healthcare provider, insurance and public (patient) in our proposal? Or GIA will be providing the support?

118. What is the criteria Post MVP to determine if the solution will continue, ie: scale and add more functions?

Elaboration: Refer to CFP 4.7.1.

119. Is there is an evaluation criterion for MVP to Post MVP? If so, what is it?

Elaboration: Refer to CFP 4.7.1.

120. Does the cloud need to be Government certified cloud or vendor is open to propose any?

121. What interoperability standards should be used for the solution? For example, Is the Insurance company going to use the Industry standard treatment codes for data mapping?

122. Since the data (Policy/Claim/Medical record or history) is not to be stored centrally then is it OK to assume that respective Insurer or Healthcare provider will make necessary changes in their systems/databases to store all the requisite data exchanged between various parties

123. Can a service provider (as a subcontractor) participate in multiple bids for the HIIP pilot with different partners (that serve as the prime contractor)?

Elaboration: Yes, and this participation must be made clear by naming them in the additional bidder information sheet.

124. As part of the pilot program, will there be integration required with the MediClaim System or National Electronic Health Records system, or purely limited to the systems owned by the Participants and any information accessible via Singpass?

Elaboration: MediClaim and NEHR are not in this pilot's scope, but bidder can include in the proposal.

125. Para 3.2.4. of the CFP states that one of the desired outcomes is that "Healthcare providers can submit all types of claims digitally to insurers, eliminating the need for paper/email-based processes." Will "all types of claims" also cover overseas claims or claims from foreigners?

Elaboration: Overseas claims are not in scope. For foreigners with local insurance, not for pilot phase; Bidder may propose for post-MVP stage.

HEALTHCARE-INSURANCE INDUSTRY PILOT (HIIP)

126. Para 4.2.7.1. of the CFP states that the solution shall minimally "Enable healthcare providers to submit claims digitally to the relevant insurers. This shall include outpatient claims arising from post-hospitalisation visits." Can we confirm if pre-hospitalisation claims are also covered?

Elaboration: Not for pilot phase; Bidder may propose for post-MVP stage.

127. Para 4.6.5. of the CFP states that "The proposal shall outline plans for the delivery of an industry report that will be published after the MVP pilot." Who are the intended recipients of the "industry report" and will this be made available to the public?

Elaboration: Bidder to propose; Different report granularities should be prepared for internal and external parties to view.

128. In the proposed solution, are we expected to provide a calculation engine for the insurers to update the estimated claim amounts or to perform sanity/reasonableness checks and flag out potential inconsistencies on estimated claim amounts?

129. For foreigners covered under Integrated Shield Plan who do not have access to SingPass, will the service provider need to develop an alternative verification workflow/solution, e.g., potentially via manual forms?

Elaboration: Not for pilot phase; Bidder may propose for post-MVP stage.

130. Do we need to provide the mechanism to enable payments for reports?

131. Enable insurers to digitally request for and healthcare providers to digitally release additional medical details or records of the patients which are deemed necessary for claims adjudication.

132. What type of mechanism are you envisioning for "digital request"? Is it via data exchange (B2B Integration or Looking for a centralized system with UI for making such requests?

133. "The proposal can include use of cloud services". With respect to Cloud hosting of the pilot and/or full implementation, do we need to host in Government's Government Commercial Cloud (GCC) or public healthcare H-Cloud? Or we can host the solution in public or private cloud platform based in Singapore?

Elaboration: Refer to 4.3.3 and 4.3.4.

134. We assume that the Front-End Channels for the Insurers and Hospitals are outside the scope of this RFP.

Elaboration: In scope for (a)

135. Our assumption is that the newly developed platform will expose the various services in the form of APIs for the Insurers and Hospitals users to consume? Please confirm.

136. Can the patient's consent for releasing relevant data be signed only once for each admission and have one universal consent for both Healthcare Provider and Insurer? Thereafter, will the patient be informed at the respective 3 stages?

HEALTHCARE-INSURANCE INDUSTRY PILOT (HIIP)

137. Are there any scenarios to which the patient's consent can be waived? E.g., patient is in coma and unable to provide the consent?

Elaboration: Not for pilot phase; Bidder may propose for post-MVP stage.

138. Does MVP stage require to cater for CPF Medisave, MediShield deduction? What's about post-MVP stage?

Elaboration: Not for pilot phase; Bidder may propose for post-MVP stage.

139. Currently Shield Insurers and CPF use Mediclaim system to exchange the claims assessment. Will this Mediclaim system be replaced by this new proposed solution or the expectation is for NCS Mediclaim system to stay?

Elaboration: Not for pilot phase; Bidder may propose for post-MVP stage.

140. In the event that there are changes in the information on the Admission form and Care Cost form, what is the expected workflow? Will the Healthcare Provider be entering the information in our system?

141. If the post hospitalization treatment leads to follow-up with a specialist either in restructured or private clinics, how will the bills be tagged back to the hospital bill?

142. Under 6.1.3 - Can Healthcare Providers and Insurers' registration and login authentication data be stored? Is 2FA required for Healthcare Provider and Insurer login? If not required, what form of authentication & authorization that hospitals & Insurers will be using?

Elaboration: Refer to 4.3.3 & 4.3.4.

143. Under 6.1.3 - If we use Blockchain in saving data, will this be considered as "data storage"?

Elaboration: Technically yes but bidder may propose and justify for the usage.

144. 3.2.5 aims to detect and combat duplicate claims, especially with multiple insurers. Given that there is only one insurer involved in the MVP phase, would bidders still need to address these multi-claims fraud issue in their MVP solution?

Elaboration: Not for pilot phase; Bidder may propose for post-MVP stage.

145. 4.2.3 Can we also assume that whenever data is shared between parties, the patient will be notified through the insurer?

146. 4.2.5.1, 4.2.7.5, 4.2.7.7: For consent to release medical records & authentication with Singpass to check claim status, will the integration with Singpass be done through the insurers' front-end application?

147. 4.5.3 Are bidders expected to model the costs of existing processes (for example, sharing and validation of LOGs between insurers and healthcare providers)

HEALTHCARE-INSURANCE INDUSTRY PILOT (HIIP)

148. 6.1.2 The proposed solution should be based on open standards and minimise the usage of any proprietary components which limits the adoption of the platform – What are some of the expectations of “open standards” and “proprietary software”? Any open-source solution may not satisfy cybersecurity, resiliency, and scalability requirements which only enterprise grade solutions will provide

Elaboration: Refer to 4.3.3 & 4.3.4.

149. 6.1.3 The proposed solution shall not store any data in a centrally consolidated physical and/or virtual location, except for necessary metadata – does this mean that the solution should be decentralized (i.e., utilizing DLT/blockchain)

Elaboration: Refer to 4.3.3 & 4.3.4.

150. Who will eventually own this system? And who will be governing it?

151. Under 3.2.1. in CFP - 'Eliminate the need for LOGs...' For this HIIP, only GEL is involved, we are unable get the information, like IPs and GH&S from other insurers, is there any suggestion how this should be done?

Elaboration: Bidder to include plan and approach on how they are going to harmonize the data between insurers and hospitals as part of the solution.

152. We understand that the proposed solution shall ensure that healthcare personal identifiable information shall not leave Singapore even if the data is encrypted. Can you perhaps confirm that storing the data in the cloud at Amazon Webservices Singapore would ensure the solution meets this requirement?

153. Will separate APIs be provided by GEL for the IPs and GH&S to different insurance systems and how many interfaces will there be? Are these standard based APIs (such as ACORD)? If so, what standard is used?

Elaboration: API are designed to be business oriented. We allow bidder to propose the standard for the HIIP.

154. Is this a requirement for the system to be the payment hub for the insurer payments for the patients' claims? Or is this just a trigger to be sent to the insurer's claims systems that the claim has been approved? Please define the term 'activate'.

155. By definition, MVP refers to a subset of the total desired system. Hence, during the MVP phase, can we be provided an indication of which functional and non-functional requirements will be mandatory for the MVP phase?

156. Is the term “data harmonization” here referring to data standardization across all participants? Please provide more details and examples of this requirement.

Elaboration: Bidder to include plan and approach on how they are going to harmonize the data between insurers and hospitals as part of the solution.

157. Will integration with CPF (via the participants) be required in the MVP for Medishield Life claims processing which is primarily with CPF only?

Elaboration: Not for pilot phase; Bidder may propose for post-MVP stage.

HEALTHCARE-INSURANCE INDUSTRY PILOT (HIIP)

158. Is there any preferred development methodology to use for this project?
159. Is there any maintenance phase after MVP or post-MVP phase? If yes, what is the scope of maintenance?
160. Is there any specific requirement for PM or Team that work for this project?
161. Will the system handle the checking of duplicate coverage/premium payment of MediShield Life?

Elaboration: Not for pilot phase; Bidder may propose for post-MVP stage.

162. Are the integrations expected to happen only in a secured private network between all participating systems?
163. Does the MVP require to cater to foreigners who do not have Singpass?

Elaboration: Not for pilot phase; Bidder may propose for post-MVP stage.

164. If the platform allows non-Singpass authorization: should there be alternate authorization mechanism? E.g., SMS-based or Email based authorization request.

Elaboration: Not for pilot phase; Bidder may propose for post-MVP stage.

165. Is there a need to cater to the request to revoke sharing consent?

Elaboration: Not for pilot phase; Bidder may propose for post-MVP stage.

166. How to cover the application as a substitute decision maker (e.g., parent of a child)?

167. What is the role of CPF Medisave system if healthcare providers are able to submit claims digitally, directly to insurers? Is there a need to integrate with Medisave for IP claims?

Elaboration: Not for pilot phase; Bidder may propose for post-MVP stage.

168. What does “Enable insurers to settle the payment electronically” mean in 4.2.7.4? Please elaborate?

169. 2.5. What EHR (electronic health records) standards (for example HL7) are used by healthcare providers and insurers in Singapore? [3.2.2, 4.2.7.3]

170. 2.14. Are there any preferred technology to be used? [4.3.2.4]

171. 2.15. Are there any preferred cloud service provider, i.e., Azure, AWS, or Google? [4.3.2.4]

172. Any preference related to the use of Blockchain for this solution?

173. Are there specific KPIs that will determine the success of the program or subsequent rollout? E.g., user adoption, cost reduction, etc.

Elaboration: Refer to 4.7.1.

HEALTHCARE-INSURANCE INDUSTRY PILOT (HIIP)

174. Are there any examples globally of what good looks like for this program?
175. Is there a single, consistent document management protocol for patient records or does each healthcare provider have their own platform/format?
- Elaboration: Standardise for all. Bidder to include plan and approach on how they are going to harmonize the data between insurers and hospitals as part of the solution. Bidder to propose and justify if specific interface protocol is needed.*
176. While the selected SI will drive the platform, who will be the custodian of this platform? If there a separate JV expected to be set up to manage this Healthcare Insurance Industry pilot?
177. Is the expectation to manage end to end services for information integration between healthcare providers and insurers also cover setting up a dedicated operations processing team, call centre team to resolve queries and processing besides technology platform implementation?
178. Is the expectation that all system implementation and services are to be provided based in Singapore or can the selected SI partner operate from onshore location in Singapore and offshore locations such as India or other locations?
179. If mobile solutions are part of the scope what type of Mobile Solution is required. Which mobile platform should it support?
180. Do we need multi language support? Mandarin, English, Tamil are widely spoken languages in Singapore.
181. Are there any standards that are being used for data electronic data transmission?
- Elaboration: Bidder to propose and justify if specific interface protocol is needed. Refer to 4.3.3 & 4.3.4.*
182. Section 4.2.6 – For providers and insurers to provide detail updates of “Inflight and Discharge”, how should the systems be integrated, via Singpass app?
183. Is there any requirement of sending letters/communication of claim settlement to the patients or all updates would be sent via Singpass app?
184. What is the reporting related requirements? Are these expected to be defined during the time leading to the MVP phase?
185. Please describe the suggested approach for collaboration and information exchange between participants and the involved parties for the proposal to the start of the MVP.
186. As the platform is implied for outpatient benefit, is the platform required to link to physician clinics, diagnostic centres, and pharmacies in subsequent phases?
- Elaboration: Not for pilot phase; Bidder may propose for post-MVP stage.*
187. It is assumed that the scope of MVP excludes auto adjudication/ auto approval capability and analysis on profiling of players (response times; % decline, acceptance, turnaround time etc?). Is this a right assumption? Would this be required in Post-MVP?

HEALTHCARE-INSURANCE INDUSTRY PILOT (HIIP)

188. Is the organizational setup to run, oversee and manage/evolve the platform defined? If yes, can you elaborate on the intended governance?

189. Does the system require a payment gateway or is an indication that the payment has been processed and that payment is acknowledged sufficient?

Elaboration: Not for pilot phase; Bidder may propose for post-MVP stage.

190. Will CPF have any role in the new platform. Are there any integrations planned for CPF?

Elaboration: Not for pilot phase; Bidder may propose for post-MVP stage.

For these questions, bidders are expected to include plan and approach on how they are going to harmonize the data between insurers and hospitals as part of the solution.

191. Can GIA elaborate more on the data harmonization expected between the participants?

192. Is data harmonization out of implementation scope for the pilot?

193. Assuming the Admission Form and Care Cost Form used by the hospitals continue to be used in future, are there plan to standardise the Admission form and Care Cost form among all healthcare providers?

We give specific responses to these questions.

194. What will be the bid process and activities beyond bid submission post 26 April 2021?

Response: We will score the bids against the threshold conditions, scoring criteria and price schedule, shortlist the highest scorers and engage them for advanced review.

195. Would SingPass be enhanced to support Medical Claim Authorization Form (MCAF) and Consent Form for Release of Medical Information by the Next of Kin / Associated Parties (i.e., not the Patient himself / herself)?

Response: Not for MCAF, refer to 3.2.3 for consent.

196. Is there a preferred Information Security Policies, Standards, Guidelines or operational constraints why MediNet is using RSA 2,048bits for HTTPS SSL/TLS Certificate and Line #877 in https://access.MediNet.gov.sg/Login/JS_RSA.js includes RSA Modulus of 512 Hex String (i.e., $512 / 2 \times 8 = \text{RSA } 2,048\text{bits}$) to encrypt the Login Credential Password?

Response: Refer to 4.3.3 and 4.3.4.

197. Is the solution expected to replace or co-exist with existing MediNet system?

Response: Expected to co-exist during the MVP stage.

198. Current as-is processes by major types (e.g., Integrated shield plan, Group, Individual private plan etc.) Please cover what documents need to be seen on Insurer and Hospital side to issue the Letter of Guarantee and for claim settlement (given different insurers and hospitals might have different process and may vary by type)

Response: Refer to 4.2.5 and 4.2.7.

HEALTHCARE-INSURANCE INDUSTRY PILOT (HIIP)

199. Insurance rules:
- Can you share details on the order of how the insurance policies need to be applied for a specific service? Medishield vs IP vs GH&S
 - Are the policies renewed annually or are they lifetime policies?

Response: The order of payment should be: 1. Employer, private insurance, other third party; then 2. MSHL/IP. For patients who are covered by a third-party payer (e.g., employee group hospitalisation and surgical insurance), if he claims from MSHL/IP first and subsequently from the third-party payer, the third-party payer or policyholder should later reimburse the relevant amount to MSHL/IP.

200. Is there a criterion (even a minimum criteria) that requires a case manager on our end to review a claim? Or will any potential manual review function reside with the insurer?

Response: Claim review functions reside in insurer claim system.

201. Does the scope cover claims submitted before HIIP is live vs Claims Submitted after HIIP goes live?

Response: Claims submitted after HIIP goes live.

202. What mode of notifications is in scope? I.e., SMS/ Call/ Email/ Push Notification. Would employers use the HIIP system as well?

Response: Employers are not users of the HIIP platform.

203. Can GIA share with us the definition of meta-data?

Response: Can be system/solution related data except patients PII and medical related data.

204. Is all implementation work to be carried out at an Approved IHHS Site? What is the security, network, environmental and physical requirements of this Site?

Response: Refer to 4.3.3 and 4.3.4.

205. What types of IP Shield plans (Basic, Class B1, Class A) will be covered in the HIIP MVP?

Response: IP Shield plans for Private, Standard, Class B1, Class A.

206. What is the list of treatments (or exceptions) included in-scope of the MVP?

Response: All except for policy exclusions which are not covered.

207. Are patient claims not using the electronic filing submission (e-file) such as bills incurred overseas or pre and post hospitalization bills in scope of the MVP?

Response: Overseas claims are not in scope. Pre-hospitalisation claims will implement later. Post-hospitalisation claims are in scope.

HEALTHCARE-INSURANCE INDUSTRY PILOT (HIIP)

208. Given that there is only one insurer involved in the MVP phase, would bidders still need to address these multi-claims fraud issue in their MVP solution?

Response: The solution should be designed to support this requirement post-MVP.

209. Will dummy data be used for the MVP pilot, or will there be live data used as well?

Response: Live data only.

210. LOGs is the control document in the Credit Risk Management function of the hospital. During the MVP-phase, in view of the proposed participants, it might be possible to eliminate the need of the LOG. However, this may not be case if the intention is for a broader rollout involving the Private Sector and other insurers/payors (post-MVP). Can you confirm that the LOG issuance feature will not be required?

Response: Confirmed LOG is not required for those participants in this pilot phase.

211. IPs essentially has "last-payor" status. By "duplicate claims", does it mean that you would not require features to perform "Co-ordination of Benefits"/Payor-ranking? (i.e., a situation where the total bill is settled in part by a GH&S plan combination with an IP)

Response: IPs has "last-payor" status such that the Payor-ranking is by GHS 1st, followed by IP. This will prevent duplicate claims. The platform needs to perform allocation.

212. Section 4.2.2 states that "The proposal shall clearly state how the relevant data sets are being handled (e.g., encrypted, stored, in-transit) on the technology solution,". In section 6.1.3, it is mentioned "The proposed solution shall not store any data ... except for necessary metadata. From 4.2.2 & 6.1.3 it is derived that the HIIP system is supposed to store only metadata. Can more detail be provided on the classification of metadata?

Response: Can be system/solution related data except patients PII and medical related data.

213. About the eNotification to patient, where will the source of contact's details be provided? Is it from the Insurer or Healthcare Provider?

Response: Healthcare Provider

214. Do the patients/policyholders required to have both Shield and GHS coverage to fall within the scope of MVP and Post-MVP?

Response: Patient with either one is in scope of this MVP.

215. When Post-MVP is opened up to more healthcare providers, will it be restricted to Government Restructured Hospitals only, or will it be extended to private healthcare providers as well?

Response: It will be extended to private healthcare providers.

HEALTHCARE-INSURANCE INDUSTRY PILOT (HIIP)

216. Under 4.2.5.3 - Does Insurer need to provide approval to the Healthcare Provider to affirm the waiver of deposit? Or is the expectation to have it automatically validated by the proposed solution?

Response: Automatically validated by business rules and if fail the pre-set business rules, insurer needs to provide approval.

217. Whilst the pilot test starts with Great Eastern, who is also providing GHS, is there a claim settlement priority rule when a patient is covered under 2 GHS policies, e.g., patient covered under employee coverage with policy 1 and under dependant coverage with policy 2. Is the expectation for policy 1 to take as priority coverage over policy 2, assuming both policies are insured by GE, or separately insured by GE and another insurer?

Response: Normally the priority is Employee first then Dependent. But there are situations where the Employee (abc) & Dependent (def) is covered under Co. 1 / Policy 1. Then at Co.2 / Policy 2, their roles switched; Employee (def) & Dependent (abc). In this situation, it is the patient's choice who will be the first or 2nd priority as both could be Employees.

218. Is the expectation also to have one single settlement advice from the same insurer to the Healthcare Provider and patient, if both coverages are insured by one single insurer?

Response: Separate as may have different policyholders for IP plan and GHS.

219. Is the expectation to provide sequential logic flow? E.g., Does the first insurer have to conclude their claims payable amount, before the case has been routed to the second insurer, or even third insurer in a sequential flow? Or the expectation is to activate all coverage?

Response: IPs has "last-payor" status such that the Payor-ranking is by GHS 1st, followed by IP. This will prevent duplicate claims. Hence it will be in sequential flow.

220. Is the claim computation logic required to be handled by our proposed solution or the insurer will be responsible for the claim computation logic?

Response: No, but there needs to be a pre-authentication logic.

221. Under 6.1.3 - what data structure and fields required by Insurer to identify, process, and provide patient's coverage details?

Response: Data fields required would include name/NRIC of Insured, plan name, effective date of policy, underwriting exclusion issued, etc.

222. Under 6.1.3 - what data structure and fields required by Insurer to process claim and payment? Does GEL required to provide real-time claim's details when requested by healthcare provider or patient?

Response: Data fields required would include diagnosis, TOSP, length of staff, bill amount, detailed breakdown of charges, etc. Yes, real-time claim details required.

223. Would there be a requirement to support splitting /prioritization/selection of claims with multiple insurance plans (or plans not in scope, e.g., Travel insurance, Group Accident Cover) to ensure most coverage by customers?

Response: 1. GHS 2. MSHL/IP 3. foreign worker insurance

HEALTHCARE-INSURANCE INDUSTRY PILOT (HIIP)

224. Under 6.1.1 in CFP - how many existing B2B gateways does GEL has for interfacing for HIIP?

Response: Logically, one set of API Gateway.

225. What is the response time for results to be returned from B2B gateway?

Response: In real-time.

226. For HIIP, as the insurer involved is only GEL, does that mean that only patients who have both GH&S and IPs under GEL are eligible for this pilot? If 'No', please provide the scenario that this pilot can be applied.

Response: So long as patient is covered by GEL either via IP or GH&S, then the patient is in-scope for MVP.

227. In the MVP phase, will each of the 3 hospitals have their individual system interface(s) OR will it be a set of common interface(s) for all 3?

Response: Common for all.

228. Will the claims status be expected to be pushed or pulled from the insurer's system when the query is made by the patient?

Response: Pulled.

229. Will CPF be a participant in the post MVP rollout?

Response: The platform will have to exchange data with CPF's system.

230. How would healthcare providers determine which policy to activate if the patient is covered under multiple GH&S (as an employee himself and spouse to the working wife) and he has his own Ips as well?

Response: The patient to be given the option to choose the policy to be activated.

231. Are these B2B gateways standardized across healthcare providers and insurers or unique to each one of the participants? [6.1.1]

Response: Standardised gateway for healthcare providers but not for insurers.

232. On provider network, does solution require to build new provider network for insurers or just integrate with insurer provider network?

Response: Insurers will be running on their incumbent platforms. Integration and collaboration should be done using open API framework for the insurers to connect.

233. For GH&S policies, it is assumed that the corporations need to provide consent for their employees too. Is this a right assumption?

Response: Employers are not users of HIIP platform.

HEALTHCARE-INSURANCE INDUSTRY PILOT (HIIP)

234. It is assumed that the scope of MVP is for greenfield implementation (namely no data take-up of open claims or fully settled claims). For post MVP, it is assumed that data take-up/conversion exercise is required for these natures of claims. Is this a right assumption?

Response: Data take-up of open claims or fully settled claims is required for MVP and post MVP.

235. With regards to the evaluation criteria: Has a weightage of the evaluation criteria already been defined? If yes, can that be shared with us?

Response: Cannot be shared.

236. Will the hospitals be able to provide coded information (ICD10 and Surgery codes)?

Response: Refer to 6.2.2 to obtain additional information.

237. Please provide information for types of claims and claim statuses, is it different for insurers? Do we have the same claim status standardize for all insurers?

Response: Types of claims - inpatient, day surgery, outpatient cancer etc., post hospital follow-up. Claim statuses - suggest bidders to propose.