



**Annex B**

**TERMS OF REFERENCE (TOR)**

**DEVELOPMENT OF A GLOBAL TRUST REPOSITORY, SOLUTION,  
IMPLEMENTATION  
AND OPERATION SERVICES**

## Annex B

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**Annex B****1 Purpose of the RFPS.**

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To select a vendor that will provide a traceability solution, initially capable of providing a verification service, for use by low and middle-income countries in the management of vaccines, pharmaceuticals and other products, specifically:

- Enable low and middle-income countries to manage the risk of falsified COVID 19 vaccines and diversion in their national supply chains, while setting the foundation for the establishment of national traceability systems in the long term.
- Support COVID-19 vaccine safety efforts by making available (in the very short term) a verification tool that countries can access and use for verifying product and detecting diversion.
- Establish a Global Trust Repository (outside of UNICEF IT operations) that can host traceability data initially from COVID-19 vaccine manufacturers and in future from any manufacturer; and can be accessed by in-country verification solutions.
- Develop a solution that is scalable, with capacity to accommodate the verification of a broader range of non COVID-19 products and additional functionality without compromising performance.

**2 Introduction and Business Need.**

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UNICEF works in some of the world's toughest places to reach the world's most disadvantaged children. To save their lives. To defend their rights. To help them fulfil their potential. Across 190 countries and territories, we work for every child, everywhere, every day, to build a better world for everyone. And we never give up. UNICEF, with its universal mandate, has established effective linkages between humanitarian and development programming and supports countries to strengthen capacities and systems when preparing and responding to emergencies.

As COVID-19 vaccines are being distributed, there has been an upsurge in the production and distribution of falsified and sub-standard vaccines and related COVID-19 supplies, particularly those reported in the media as potential therapies for COVID-19. This trend is expected to continue as COVID-19 vaccines and therapeutics become more available. The development of one of the most valuable vaccines in history has driven the proliferation of falsified COVID-19 vaccines, diversions and theft to degrees not seen before. The highest risk is in low- and middle-income countries national supply chains, where governance structures and traceability systems are non-existent or not fully mature, and tools and technical capacity to ensure good practices in manufacturing, quality control and monitoring of distribution chains is limited. To this end, a solution that provides countries with mechanisms to monitor national supply chains of COVID-19 vaccine is imperative to ensure

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equitable access, safety, and security – and build the foundation for end-to-end traceability for vaccines and medicines. Proposals should therefore include explanations about scalability options (detailed in section 6.2) and provide pricing structures to accommodate future changes over time.

### **3 Background.**

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The pharmaceutical industry and the international development community has for some time now promoted the use of global data standards to provide a wider and harmonized framework for supply chain visibility, strengthening anti-counterfeiting measures and sharing of data between parties. In this context, the Inter-Agency Supply Chain Group (ISG), with World Health Organisation (WHO) as the host, issued a note in 2017 supporting recommendations to:

1. Work with countries in creating policy frameworks to support GS1 standards adoption.
2. Align national supply chain policies regarding standards harmonization
3. Support & encourage investment in digital infrastructure in countries to implement national product traceability systems.

UNICEF is currently working with various global partner organisations (including BMGF, GAVI, Global Fund, USAID, WHO, World Bank) as part of a global health community supporting low- and middle-income countries prepare for and implement traceability systems that would significantly reduce the risk of proliferation of falsified pharmaceuticals, vaccines and other health technologies.

In August 2020, UNICEF, Gavi and the World Bank made an urgent call to action for the establishment of a COVID-19 Vaccine and Therapeutics Traceability Expert Advisory Board to advocate for the development and implementation of a traceability solution for the COVID-19 vaccine and related therapeutics. The Expert Advisory Board, drawn from global partners, regulators and members of the Global Steering Committee for Quality Assurance hosted by the World Bank immediately set out to explore options for the development of a minimal viable solution that could be rapidly deployed. The first key activity was the establishment of labeling standards to be applied to vaccine packaging at secondary level that would enable traceability of products along the supply chain. In order to coalesce on a common set of labelling standards, UNICEF hosted a consultation with manufactures, regulators, procurement agents and WHO to help inform the labelling specifications of the COVID-19 vaccine that are necessary to enable traceability and authentication of COVID-19 vaccines and other products across national supply chains in countries.

Many of the vaccines being supplied to the COVAX Facility are now serialised in accordance with these labelling specifications using GS1 Standards. In 2021, UNICEF will procure 2 billion doses of COVID-19 vaccines on behalf of the COVAX facility, the vaccine pillar of the global initiative, ACT-A that aims to ensure equitable access to COVID diagnostics, treatments, and vaccines. Over 170 economies have joined the initiative, which is co-led by WHO, Gavi, the Vaccine Alliance and CEPI, the Coalition for Epidemic Preparedness Initiative. Together with partners, UNICEF is committed to ensure that those doses reach



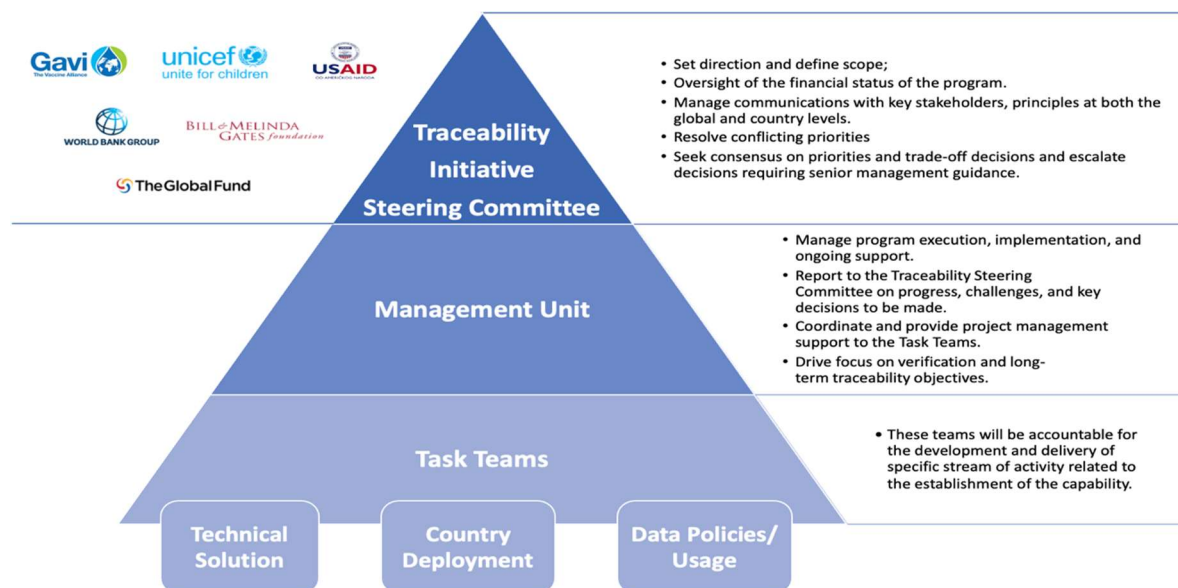
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their target population safely and help reduce the risk of falsified COVID vaccines entering national supply chains and diversions.

A traceability initiative has now been set up to drive the establishment of a minimally viable verification solution for COVID-19 vaccines – with a long-term vision toward end-to end traceability. To progress the “Traceability Initiative”, a multi-stakeholder governance mechanism (figure 1) led by a Traceability Initiative Steering Committee has now been established and will act as the primary vehicle for the implementation and roll out of the GTR and verification solution. The steering committee will have an oversight role for the entire project while a Project Management Unit will have oversight of programme execution and implementation. The Steering Committee will leverage the World Bank hosted Global Steering Committee on Quality Assurance of Medical Products for advocacy, independent expertise drawn from public and private sector experts, ongoing linkages to its member National Medical Regulatory Authorities (NMRAs) and to accelerate action to the mutually agreed objective of brining COVID-19 Vaccine verification solutions to scale with a vision toward end-to-end visibility of vaccines and medicines.

The Steering Committee has recommended and approved UNICEF to be the entity responsible for the procurement and commissioning of the Global Trust Repository, verification solution and associated services on behalf of the traceability initiative.

**Figure 1: Governance Structure**



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**4 Responsibilities.**

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**4.1. Proposer's Responsibilities:**

UNICEF requires Platform as a Service solution, a single and secure traceability solution (with verification capability) delivered, fully designed, configured/customized (where necessary), installed and tested and fulfilling all the requirements defined in this RFP document. Therefore, the proposed traceability solution shall in one contract/legal instrument include the Global Trust Repository (hosted outside of UNICEF IT systems), the software application and the implementation services, including post-implementation support and maintenance for the envisioned duration of the resulting contract/agreement. Kindly refer to Section Contractual Approach below for information on envisioned length of agreement.

If the proposal is selected, the Proposer's obligations shall include but are not limited to:

- Designing, building and testing the Global Trust Repository based on agreed technical and functional requirements.
- Hosting at a site or platform (cloud hosted service) external to UNICEF's IT systems that meets the cloud hosting technical standards and requirements of UNICEF.
- Designing a software application compatible for use on/with cellular technology (GSM, GPRS/3G/4G/5G) as detailed in the technical requirements.
- Designing a dashboard with full analytics capability as defined in the technical requirements.
- Provision of associated services related to operating the GTR, software application, dashboard including post implementation support, helpdesk, training and maintenance.
- Build into the solution/system security protocols that ensure data integrity and security in accordance to standards detailed in Appendix D.
- Providing technical and maintenance support, within the specified warranty period, for all the configurations and customizations the Proposer had applied in implementing the scenarios of the identified Use Cases.

**4.2. UNICEF responsibilities:**

UNICEF shall have no obligation to provide any assistance to the successful Proposer (s) in performing the services other than as expressly set forth herein:

- a) Communicating change requests/inputs from the Traceability Steering Committee

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- b) Reviewing and approving functional and technical requirements for the solution
- c) Facilitating input from the Traceability Steering Committee and other stakeholders
- d) As this solution will be a cloud-hosted solution, UNICEF will need to validate vendor's conformance to UNICEF's cloud hosting security, technical standards and procedures before the vendor can proceed.
- e) Conducting periodic security testing of the traceability solution.
- f) Quality assurance/validation and sign off of the traceability solution.
- g) Providing dummy data for conducting acceptance testing
- h) Payment of different components of the Traceability Solution (i.e. recurring and one-time costs) in accordance with the payment schedule agreed with the selected Proposer and all other Terms and Conditions related to invoicing and payment instructions agreed by the Parties.

## **5 Contractual Approach**

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**It shall be noted that UNICEF's primary intention is to enter into a contract /legal agreement with a single vendor, capable of providing the full scope of the required Traceability solution and other associated services (as outlined in Section 4 above). UNICEF, therefore, strongly encourages the vendors to bid accordingly.**

UNICEF expects to establish a contract with the selected proposer for an initial period of approximately 2 years with options to either extend the established contract annually - or transition the contractual arrangements to another entity - as determined by the Traceability Steering Committee in the future. The Proposer shall also provide free of cost a one (1) year warranty to UNICEF to cover the implemented Solution and all Services rendered in connection to it.

Proposers must guarantee maintenance and support services of the Proposed Solution including for a minimum of 2 years, plus access to data maintained in the system for an additional 7 years from the last batch upload.

## **6 Solution (Technical and Service) Requirements.**

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Within this document the following definitions apply:



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- **Out of the Box:** UNICEF functional and technical requirements can be fulfilled, with the Traceability Solution tool(s)/modules(s) that the Proposer is offering, without any additional work (i.e. configuration or programming).
- **Configuration:** UNICEF functional and technical requirements cannot be fulfilled “out of the box” but it can be configured with parameters or easy-to-use tools provided by the Proposer; (i.e. no programming is required).
- **Customization Required:** UNICEF functional and technical requirements cannot be fulfilled “out of the box” and cannot be easily configured. To fulfil these requirements the functionality needs to be developed by a programmer or a technical consultant specialized in the product. Proposer should specify whether the customization is free or with additional cost.
- **Not Included:** The requirement is not a part of the Traceability Solution and cannot be easily configured or customized.

**Note:** The proposer is required to fill in the above classifications against each requirement in table B and C (Appendix B3) if configuration or customization is necessary, the proposer shall reflect this in their project plan indicating the time needed to complete the configuration/customization. Please account for all phases of the project implementation life cycle, including testing and integration, when providing timelines.

## **6.1. Technical and Service Requirements**

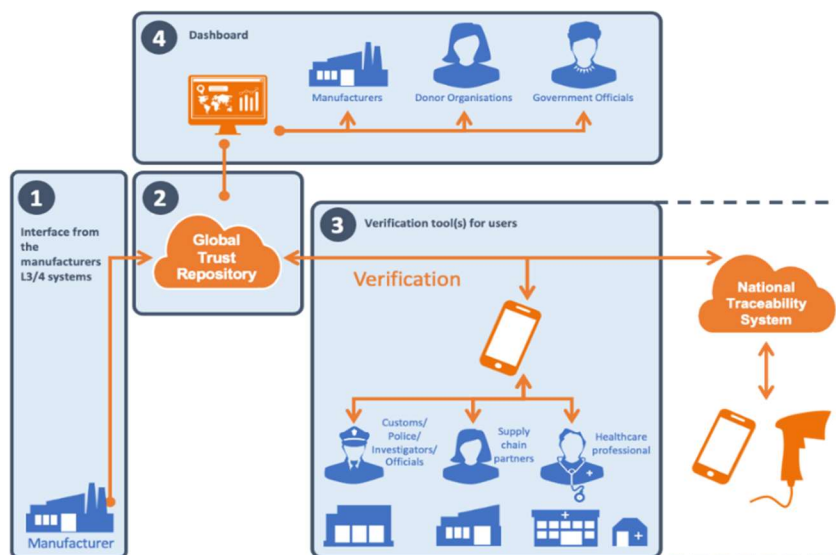
The Proposal shall demonstrate and confirm the Proposer’s compliance to the technical and service requirements detailed in Appendix B3 - Requirements Compliance Sheet. Summary of functions and features required are illustrated in (figure 2) and comprise:

1. **Interface to manufacturers:** The proposer’s solution must demonstrate capability to allow manufacturers to easily upload serialised batch data seamlessly via an interface with manufacturer L3/4 systems.
2. **A Global Trust Repository (GTR):** The GTR should have capability to store the batch serialization data allowing packs in the legitimate supply chain to be scanned and verified. It will also store the verification events and results of these so they can be displayed in the Dashboard.

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3. **In-country verification tools:** The proposer should provide a range of verification tools as specified in table B of Appendix B3, which includes but not limited to a cellular phone-based application that will allow stakeholders to scan and verify packs.
4. **Dashboard:** Proposer must develop a dashboard that will allow relevant stakeholders to see the verification/traceability events.

Figure 2: High Level Solution Framework



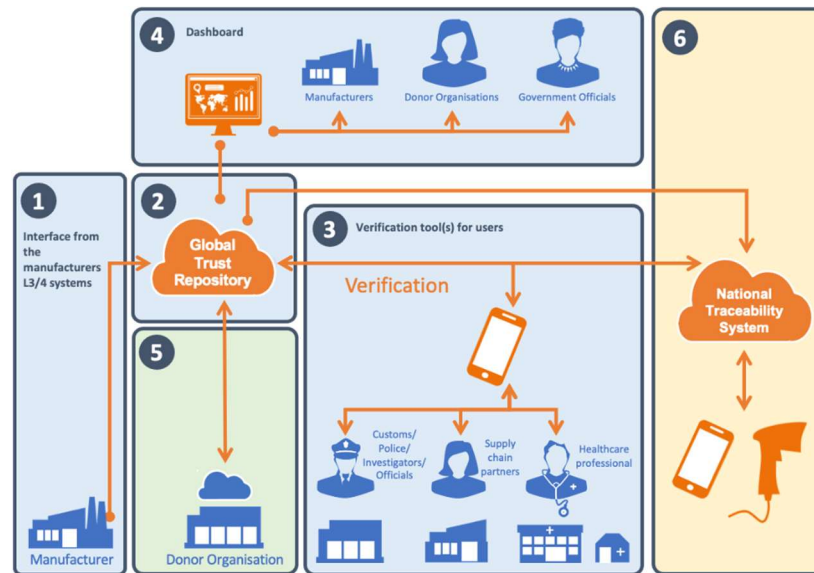
The system will initially be used to provide a verification capability. This is not currently a traceability system.

The system is required to verify items using GS1 barcodes and product identification standards. The verification is not intended to manage or change the status of the item being verified (as with systems such as the EU FMD EMVS).

The provision of the GTR maybe expanded to products beyond the Covid-19 scope in future.

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Figure 3: Potential Future Development



Although the system is currently focused on the provision of verification, it is likely to need to evolve in future as traceability becomes a regulated requirement in countries.

The GTR is never intended to be a single traceability system across multiple countries. It may however need to manage the traceability event data for items before they reach the port of entry, specifically where goods flow through aid

agencies physical warehouses.

Ultimately the GTR could fulfil two functions:

1. Verification of items in unregulated markets (Intended scope of initial deployment).
2. A pre country traceability system able to make the serialisation data available when the good are shipped to regulated countries (Potential future scope).

To ensure the GTR is able to evolve in future to support national level traceability legislation the system should be built upon a platform capable of handling GS1 EPICS events using aggregation. At this point it should also be able to receive product master data from a GS1 GDSN data pool.

The proposer must therefore provide the following.

- Description of Proposer's traceability and verification technology.
- Description and illustration of proposer's traceability platform and related tools.
- Description and illustration of Proposer's implementation models and deployment options.
- Description of capability to integrate with other systems and technologies, e.g. National Traceability Systems, Warehouse Management Systems, GS1 GDSN Data Pools.

**Annex B****6.2. Scalability**

The proposed solution should be scalable and must be able to support an increased range of functionality and capability as detailed below.

***Baseline:***

- # of SKUs: Up to 50
- # of Dashboard Users: Year 1 – 200 & then 50-100 per annum
- # of Countries: 25 – 30
- # of Manufacturers: Up to 10
- Master data: up to 7 fields
- Annual serialisation volume: 40 – 50 Million SGTINs
- Annual verification volume: 4 – 5 million verification events (10% of SGTINs)
- # of local versions of the GTR App: 15
- Number of APIs/ SDKs: 3 in total to cover the following:
  - a) National app linked to GTR
  - b) National traceability system linked to GTR
  - c) Local system linked to GTR

***Scaled Up:***

- # of SKUs: Up to 250
- # of Dashboard Users: 400
- # of Countries: additional 10
- # of Manufacturers: Up to 50
- Master Data: Up to 30 fields
- Annual serialisation volume: 250 Million SGTINs
- Annual verification volume: 25 million verification events (10% of SGTINs)

**6.3. Platform and Infrastructure Architecture**

The proposed solution must be a fully managed cloud service on external platform the Platform as a Service (PaaS) approach.

**6.4. Security framework**

The Proposer must submit an integrity certificate (e.g. assessment by an application security testing vendor) ensuring that the application is free from embedded malicious / fraudulent codes. Proposer must also submit the process of preventing the introduction of malicious/fraudulent codes as well as steps to follow if such event occurs. In addition, the Proposal must include a detailed explanation and confirmation of the tool's compliance with UNICEF's policy on data security as detailed in the Security Framework section of Appendix B3 – Tables B and C (Requirements Compliance Sheet) and Appendix D Class II - UNICEF

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Security Requirements . UNICEF reserves the right to conduct security tests on the traceability solution at any time for the duration of the contract.

**6.5. Configuration/Customization**

The Proposal should include and detail any customisation anticipated based on the information given on the scenarios and mandatory requirements. Any configuration and customization (if any) implemented shall be fully documented.

**6.6. Testing/QA**

The solution will be tested by UNICEF business users and selected delegates of the Traceability Steering Committee. The Proposal should include a recommended test plan that can be used during testing/validation. The final UNICEF approval of the solution will require formal sign offs by business focal points which will be based on acceptance tests where business users validate functionalities against the requirements.

The Proposal should include the Proposer's process in ensuring that no configuration or executable code will be implemented into the Production environment until evidence of confirming to the testing criteria (user approval, QA, or the equivalent) is acquired and the associated program source libraries have been updated.

**6.7. Training**

Knowledge transfer and training needs on the entire application, both for users and administrators, must be included. This must include training materials that are SCORM-compatible which can be published on UNICEF's or other nominated entities platform for online training.

The selected Proposer shall:

- Conduct technical training across the range of user-profiles in all aspects of administration, operating and troubleshooting the verification/traceability solution. Training should also cover the basic and advanced functionalities of the application and any other necessary functions.
- Conduct training and orientation for UNICEF assigned staff in all aspects of the verification solution.

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- Depending on user adoption, UNICEF may request additional classes on either or both of the above trainings.

In support of these training deliverables, the Proposer shall:

- Provide one complete set of SCORM-compliant training materials for verification solution Users and Administrators.
- Provide one complete set of SCORM-compliant training materials for Developers.

The Proposal shall include:

- Comprehensive plan on how to implement the trainings.
- Description and examples of the training materials that the Proposer has previously developed /produced in similar format.

**6.8. Documentation**

In addition to the product's documentation, the Proposer shall provide one complete set of technical documentation of the verification solution as it is set up and configured/customized (where applicable) for UNICEF. This documentation shall be in digital format; either as standalone material or can be part of the abovementioned SCORM-compliant training materials.

The Proposal must include description and examples of the end-user documentation and technical documentation in the format as required above that the Proposer had provided in other similar projects.

**6.9. Maintenance, Support & Upgrades**

After implementation, the ongoing support and maintenance of the verification solution shall be the responsibility of the selected vendor and shall include support and maintenance of the basic software tool, repository, interfaces, applications, APIs and of the configuration and customization (if any) implemented for UNICEF.

The Proposer shall describe in detail all the annual support and maintenance schemes that they will conduct and must include the internal procedures and processes for resolution of problems and strategies for service improvements etc.

Proposer shall also specify the annual support scheme that will fit the requirements of UNICEF including the specific maintenance entitlements, e.g. software fixes, releases and updates etc.

The Proposer shall also provide:

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1. At least one (1) year warranty **free of cost**, preferably two (2) years, from the date the solution goes into Production, for the implemented solution including configurations and customizations.
2. The proposed verification solution shall be sustainable and future proven. The response must provide a roadmap for the next 3-5 years showing upcoming releases and further innovative features. Proposed solution shall be supported and be available for the next 3-5 years within the upcoming releases. It should include the company's policy regarding support of previous releases of software and Product End of Life.
3. The response must include information on the security test and the standard security updates and application upgrades. If any customisation is involved in the solution, include maintenance and upgrades for the custom aspects also.
4. Changes to system and/or application post baseline will be documented (version / build number), along with description via a formal change management process. The Proposer shall report the following information about patches, at a minimum: type, version, reason, post test results after implementation. Patches that fail testing will also be recorded and documented. The Proposer should clearly define the procedure to handle escalation issues, bugs, and service packs.

**6.10. Project Plan**

The response should include a detailed project plan along with resources and timelines that covers, but not limited to, customization, integration, UAT, and implementation of the full scope of the project as mentioned above. This should clearly state the resources and efforts required from the side of UNICEF. The Proposer's project plan will be evaluated in accordance with criteria set out in Appendix B4 of this RFPS. The system should be available to go live in the first 3 countries within 4 months of the contract being awarded.

**Note: Same Project plan shall be provided as part of the Commercial Proposal refer to Appendix C- Price Schedule and Instructions.**

**7 Demo.**

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As part of the technical evaluation UNICEF will **ONLY** invite shortlisted Proposer(s) to a demonstration session (Demo) as per the process described in section 9. In the Demo session, the Proposer will be asked to demonstrate how the proposed traceability/verification solution performs on the use-cases and scenarios specified in the Appendix B6 below, these are as follows:

- Scenario 1. Verification request - App
- Scenario 2. Verification failure
- Scenario 3. Suspect Activity
- Scenario 4. Dashboard User Set Up



**Annex B****Scenario 5. Access to Electronic/ Online Content**

All five of the scenarios must be demonstrated during the demo session.

The Demo **MUST** be conducted on a full discloser basis, meaning that any requirements that the proposed system/solution does not currently meet needs to be disclosed as part of the demonstration.

The Demo must show features summarised below:

1. The Global Trust Repository form and function.
2. Verification tools functionality focusing on the mobile application, but with reference to the other verification tools requested in Table B of Appendix B3.
3. Dashboard with analytics across all the user profiles including access segmentation across user profiles and countries.

Based on the demonstration and the input received during the session, UNICEF will assess the solution's level of compliance with the requirements, as well as the complexity of the underlying configuration or customization (if any).

**Note:** The Demo session shall not exceed four hours and shall be provided free of cost to UNICEF. The Proposer will be invited a minimum of two weeks prior to the session, therefore allowing a minimum of two weeks for preparation. Considering the current travel restrictions, UNICEF will conduct the Demo presentations virtually online and these will be scheduled between 1200HRS – 1700HRS CET during weekdays. Bidders/Proposers are responsible for all costs associated with building the Demo including any other associated cost relating to the Demo presentation.

The tasks to be completed by the Proposer during the Demo session are specified in the sections below.

**7.1.** Proposer should bring into the demo a complete setup of the GTR, Verification Solution, and entire operating environment including the hardware. The time needed for setting up the demo environment is excluded from the four hours allotted for the demo. Proposer is advised to communicate in advance with UNICEF for any technical consideration that UNICEF may need to provide for the demo.

**7.2.** Proposer should analyse all the use cases provided in Appendix B6 and demonstrate how the solution will meet these. The proposer is encouraged to consider the relevant requirements in Appendix B4, tables B and C and use the demonstration to illustrate how these are achieved in the context of the scenarios.

The process flows provided in Appendix B6 are for guidance only and the proposer should be prepared to explain how their system meets the deliverables for each scenario.



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## 8 Structure of the Proposals.

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Please structure your proposals in a clear, straightforward manner and in accordance with the outline of the respective sections below. Please separate your proposals into **two parts**:

1. Solution (Technical and Service) proposal
2. Commercial/Price proposal

**Note** Failure to comply with this requirement of separation between the Solution (Technical and Service) and Commercial parts of the Proposal will result in **immediate disqualification** of the Proposal. Please make sure to read **in full** the RFPS document with particular attention to the **RFPS Section “IMPORTANT: ESSENTIAL INFORMATION” in page 1 and the “INSTRUCTIONS TO PROPOSERS” for specific and mandatory instructions for submission of Proposals.**

### 8.1. Technical Proposal Structure:

Proposals must be clear and concise, comprehensive, and directly address the specifics of the proposed services work. UNICEF is not expecting or desiring to receive a significant amount of “general marketing literature” from the Proposer.

All Proposers shall state explicitly their understanding of the dependencies and inputs they need from UNICEF.

The Proposals must provide sufficient information to address compliance with UNICEF’s requirements outlined in **Appendix B** to ensure the evaluation team can make a fair assessment of the company based only on its proposal.

**Note:** UNICEF reserves the right to either reject entirely or significantly lower the assessment score for any proposal that appears to be incomplete or inconsistent in terms of documentation and information provided.

**The Technical Proposal should include, but not limited to, the following:**

- a) Detailed understanding of UNICEF requirements.
- b) Company Profile with description of Proposer’s GS1 enabled traceability and verification expertise.

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- c) Proposers are required to submit duly authenticated business registration or certificate and other supporting documents as evidence of their solid presence or representation in their country of domicile.
- d) Detailed Methodology/Approach demonstrating how you meet or exceed UNICEF requirements for this assignment. This must include the following detailed information:
- Type of solution/product
  - Detailed information of the proposed solution; at the very least, this should cover all mandatory technical requirements
  - Information on programming language used for customization, if applicable
  - High-level summary of methodology to be used in the development, testing and deployment of the solution
- e) Expertise of Company detailing general and specific experience with similar assignments in size, scope and complexities in the past five years. Proposers are requested to back up their submissions by providing evidence in the form of job completion certificate, contracts and/or references.
- f) Completed Client Reference Forms
- The Proposer is required to provide three (3) completed Client Reference Forms using the template contained in **Appendix B5** providing references of clients to whom the Proposer is currently providing or have provided similar services than described in this TOR within the last five (5) years. The Form shall include a detailed description of the relevant services the Proposer wants to present as proof of relevant experience. A separate Client Reference Form must be completed for each service and client reference.
- Note 1:** The use of the Appendix B5 -Client Reference Form **is mandatory** - only proposals submitted on this form will be considered.
- Note 2:** UNICEF reserves the right to contact each client reference provided by the proposers. It is the Proposer's responsibility to ensure that the client's contact details provided are accurate and to ensure that the client will be responsive to UNICEF's enquiries. Please note that clients must be willing to **provide feed-back in writing**. Failure to include all the requested information may result in the Proposer's submission being less favourable and/or disqualified.
- g) Description of Proposer's approach to overall management of the service and account management systems and methodology; including:

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- Outline of Proposer's project management procedures
  - Project dependencies and assumptions
  - Project implementation and work plan showing the detailed sequence and timeline for each activity and milestones
- h) Description of the Proposer's approach in providing SCORM-compliant training materials. Proposers are required to back up their submission by providing evidence of SCORM-compliant training materials that they have developed and delivered in the past 5 years, with relevant information such as:
- Softcopy or active link to the training materials
  - Software used
  - Development approach, e.g. in-house developed, sub-contracted, etc.
  - Brief description of the Client
- i) Quality assurance mechanism and risk mitigation measures put in place
- j) Testing methodologies and detailed steps the Proposer employs in testing traceability/verification solutions
- k) Acceptance and confirmation to adhere to the General SLA outlined in **Appendix B1** "General SLA" below.
- l) Complete **Appendix B2- Proposer Self-Checklist**.
- m) Complete **Compliance Sheet**" including:
- **Table A** – Qualifying Requirements
  - **Table B** – Technical Requirements
  - **Table C** – Service Requirements

These three tables are found on a single MS excel spreadsheet (Requirements Compliance Sheet), and the requirements are classified in the table column. By filtering on this column proposers are able to view the distinct tables.

**8.2. Commercial Proposal Structure:**

Detailed instructions on submission of Commercial Proposals are indicated in **Appendix C- Price Schedules and Instructions**.

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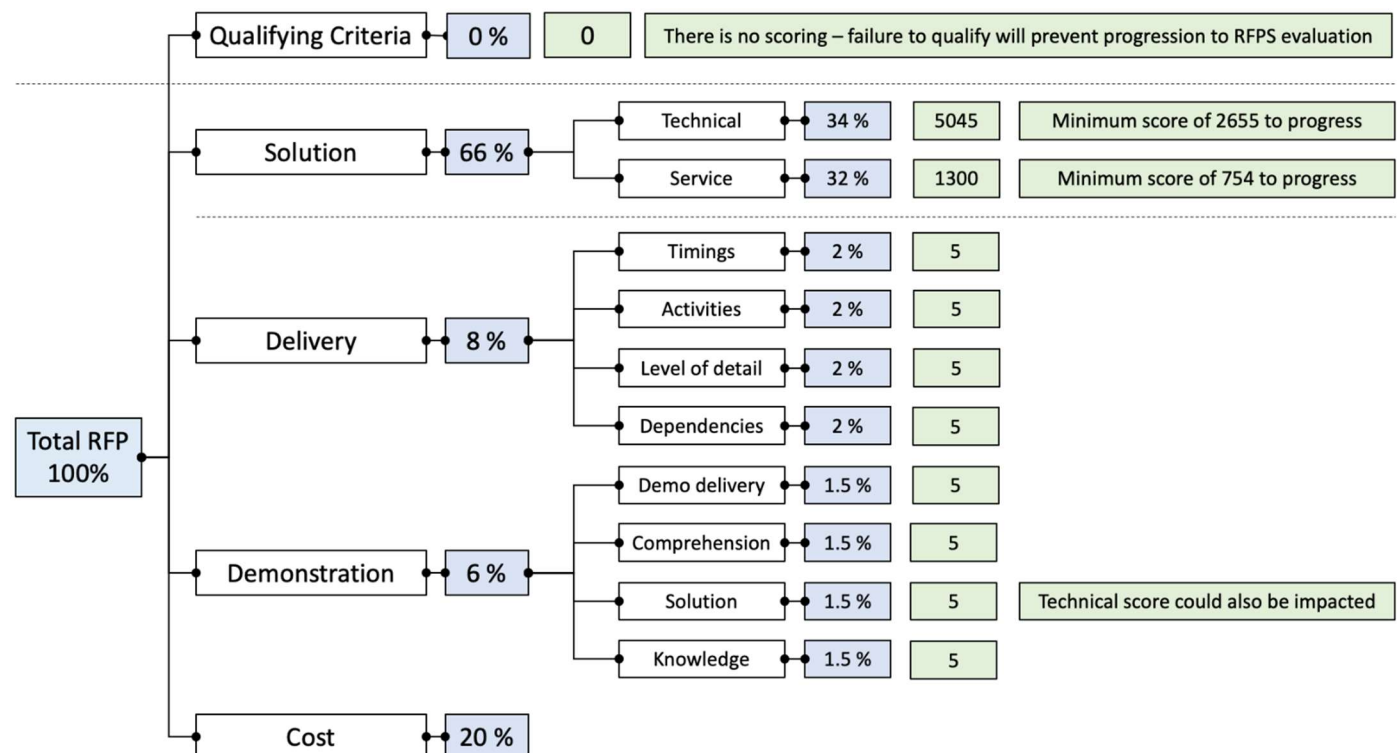
## 9 RFPS Evaluation Process and Criteria.

Proposals submitted in response to the RFPS that will be received in time, and which will respect all requirements (e.g., strict separation of technical proposal and commercial proposal) will be reviewed by a group of assessors in accordance with UNICEF's policies.

According to the standard procedure of UNICEF, technical proposals will be reviewed first (before opening the commercial proposals).

The RFPS evaluation breaks down as shown in the figure 4 below. The points available are shown in green and the associated percentage of the RFPS these points make up are shown in blue. As an example, the technical requirements in table B of Appendix B3 are scored out of 5045 and a perfect score would count for 34% of the total RFPS. Likewise, the service requirements in table C of Appendix B3 are scored out of 1300 and a perfect score would account for 32% of the total RFPS. The remaining 34% will be covered in delivery (project plan), demonstration and cost.

**Figure 4: RFPS Scoring Breakdown**





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The following four areas will be evaluated prior to opening the cost proposals.

- 1) Qualifying Criteria – Table A of Appendix B3
- 2) Solution (Technical and Service) evaluation – Table B and C of Appendix B3
- 3) Delivery (assessed against a submitted project plan) – Appendix B4
- 4) Demonstration (assessed in a four-hour presentation) – Appendix B4

The established RFPS evaluation process of Proposals is as follows:

### **9.1 Qualifying Evaluation**

Table A in Appendix B3 contains the qualifying requirements, any proposer who does not meet these requirements will not be taken through to subsequent stages of evaluation. It is strongly advised that proposers supply evidence of meeting these requirements. In addition, proposers will be evaluated against criteria set out in section 8.1 of this document on a comply/non-comply basis.

### **9.2. Solution (Technical and Service) Evaluation**

The Criteria for evaluation of the solutions has been divided across two areas comprising:

- 1) Technical requirements (Mandatory and Optional)
- 2) Service requirements (Mandatory and Optional).

Please refer to RFPS **Appendix B3 - Requirement Compliance Sheet Tables B and C** for the list of criteria and respective classification.

The evaluation of Proposals will take into account not only whether the Proposer's solution meet a Requirement (Mandatory and/or Optional) but also the degree of compliance with the requirement (i.e. meets and/or exceeds expectations; out of the box/ configuration/ customization, etc.). The proposer must complete the "Compliance" column for each of the requirements, as outlined above in section 6 of this document.

As part of the evaluation, UNICEF may request that proposers provide additional information to substantiate their claims. This may include, but is not limited to, request for documentation, links to websites, request for clarifications, 1:1 meetings, etc. The evaluation process will consist of the follow stages:

#### **9.2.1 Mandatory Requirements**

Requirements identified as "Mandatory" in Appendix B3, tables B and C will be assessed following a two-stage process:

**Stage 1.** Determination of Meeting the Mandatory Requirements (Pass/Fail):



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**Passing criteria:** A Proposal **MUST** meet all the mandatory requirements listed in Appendix B3 Tables B and C. Documents to support these requirements must be submitted with the Proposal.

Any Proposal that does not meet all Mandatory requirements will be disqualified as being technically non-compliant and rejected at this stage without further consideration.

However, UNICEF also reserves the right to waive mandatory requirements in the following instances:

- a) In the event that none of the submitted proposals meet all the mandatory requirements, UNICEF reserves the right to allow to pass to the next step of evaluation the proposals that in their sole discretion most closely meet the requirements
- b) UNICEF also reserves the right to waive mandatory requirements provided that all of the otherwise responsive proposals failed to meet the same mandatory requirements and/or doing so does not otherwise materially affect the procurement. This right is at the sole discretion of UNICEF.

### **Stage 2. Score the requirement**

Once a mandatory requirement has been assessed by UNICEF as “pass” or “complied”, it will then be re-evaluated to determine the degree of compliance with the requirement and a numeric score will be allocated to it. Please refer to Section 10 - Technical Score methodology below for further information.

#### **9.2.2 Optional Requirements**

Requirements marked as “Optional” in Appendix B3 Table B and C will then be assessed and scored within the maximum points per optional requirements and following the scoring methodology in section 10 below.

#### **9.2.3 Overall Mandatory + Optional Requirements Scoring:**

The combined score of the mandatory and optional requirements will then be added together.

**Passing criteria:** Proposals that do not obtain 2655 points out of the maximum obtainable technical score of 5045 and 754 points out of the maximum obtainable service score of 1300 points will be considered non-compliant and rejected at this stage without further consideration.

UNICEF also reserves the right to waive the passing criteria in the following instances:

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a) In the event that none of the submitted proposals meet the passing criteria score, UNICEF reserves the right to allow to pass to the next step of evaluation the proposals that in their sole discretion most closely meet the requirements

b) UNICEF also reserves the right to waive the passing criteria provided that all of the otherwise responsive proposals failed to meet the passing criteria score and/or doing so does not otherwise materially affect the procurement. This right is at the sole discretion of UNICEF.

**9.2.4 Demo Session:**

A Proposal that passes the technical and service evaluation will be invited to a Demonstration Session (Demo). The Proposers shall present a Demo as described in above Section 7 of this Annex B.

The Proposers will be evaluated based on the demonstration and any further input received during the Demo session. The objective of the Demo is to validate the Proposer's solution and to evaluate the solution's capability of fulfilling the requirements indicated in this TOR.

UNICEF will assess the application's level of compliance with UNICEF requirements, as well as the complexity of the underlying configuration or customization (if any). In addition, during the Demo, UNICEF will assess the Solution's capabilities as it is demonstrated in relation to all to all Use-Cases in Appendix B6 of this RFPS and Proposers will be further scored based on a point system as per Appendix B4–Demo (additional scored requirements).

The Demo will also provide the opportunity to further review and assess the ability for the proposer to meet the technical requirements in Appendix B3, tables B and C. The scoring of these may be adjusted as a result.

Demo Passing criteria: The Proposer shall successfully deliver all scenarios/tasks of the Demo. The Maximum obtainable additional numeric score points for the Demo is 20.

**9.2.5 Overall Technical evaluation after Demo**

The adjusted scores (after Demo) and any additional scores from Demo session will be added to determine the final overall technical and service numeric score of the proposal.

**Passing criteria:**

The Proposer shall still meet all Mandatory Requirements (pass/fail).

Proposals shall still retail a core of 2655 points out of the maximum obtainable technical score of 5045 and 754 points out of the maximum obtainable service score of 1300 points.





## Annex B

**9.3 Project Plan (Delivery)**

Following the completion of the demonstration the project plan will be reviewed in accordance with the scoring defined in Appendix B4. The project plan will carry a total of 20 points and accounts for 8% of the total RFPS.

**9.4 Commercial Evaluation**

Subsequent to the solution evaluation, those Proposals found to be ~~acceptable~~ qualified will be further evaluated in terms of cost.

Proposers are required to submit their Commercial Proposals in accordance with the instructions and format provided in **Appendix x C (“Price Schedules and Instructions”)** to this RFPS. **Failure to comply with prescribed format will result in the disqualification of the proposer. All prices must be submitted in this format. Any additional cost line items that UNICEF may have omitted will be added under other.**

The methodology for allocating points among Commercial proposals is as follows:

$$\text{Score for price proposal X} = \frac{20 \text{ (maximum points)} * \text{Price of lowest priced proposal}}{\text{Price of proposal X}}$$

**9.3. Overall Combined Technical/Commercial Score**

The scores attained by the Proposers in the technical and commercial evaluations will be combined to attain the overall score, and the Proposals will be ranked accordingly. The breakdown of points and the relative percentage of the RFPS these make up is available in Figure 4 above.

The companies will be ranked based on their overall scores.

**9.4. Financial Stability check**

As part of due diligence, UNICEF will review the financial stability of the highest ranked Proposer(s).

**9.5. Recommendation**

The recommendation for award of contract will be made based on the best combination of technical and price score, results of the reference checks and financial stability of the Proposer.



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**9.6. Final Contract Award**

Based on the recommendation of award of contract, negotiations will be initiated with one or more of the successful Proposer(s).

**10 Technical Score Methodology****Appendix B3 Table A:**

These recruitments are not scored, as they are pre-qualifying purposes and based on a pass/ fail criterion.

**Appendix B3 Table B:**

Numeric scores for the requirements will be allocated using the following methodology.

1) Each requirement will be allocated marks based on how compliant the solution is, this will vary for mandatory and optional requirements.

Type of Delivery (Compliance)	Mandatory requirement	Optional requirement
Out of the box	6 Marks	4 Marks
Configuration	4 Marks	2 Marks
Customization – free of charge	2 Marks	1 Marks
Customization – additional cost	1 Marks	0 Marks
Not available	0 Marks	0 Marks

2) Each requirement will also be scored based on how well the solution meets the requirement.

Quality of submission	Mandatory requirement	Optional requirement
<b>Exceeds Expectations</b> The Proposer is able to demonstrate in an excellent manner how it proposes to meet the requirement.	6 Marks	3 Marks
<b>Meets Expectations</b> The Proposer is able to demonstrate in a reasonable manner how it proposes to meet the requirement.	3 Marks	2 Marks
<b>Partially Met Expectations</b> The Proposer does not demonstrate very clearly how it proposes to meet the requirement or only partially meets the requirement.	0 Marks	1 Marks
<b>Unacceptable</b> The Proposer does not demonstrate at all how it proposes to meet the requirement or simply does not meet the requirement.	0 Marks	0 Marks

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3) Every requirement has been allocated a priority, according to how critical the requirement is to the current scope and deliverables of the GTR. The priority uses a simple High (H), Medium (M) and Low (L) categorization. High priority requirements receive 5 marks, Medium 3 and Low 1.

Each requirement will get a final score based on the following formular.

$$(Type\ of\ Delivery\ Compliance\ Mark + Quality\ of\ submission) \times Priority\ Mark = Score$$

For example, if a mandatory requirement with a high priority is assessed as being available out of the box and the proposer is able to demonstrate how the requirement is met then the equation would be as follows:

Type of Delivery Compliance (C) = 6 Marks

Quality of submission (Q) = 3 Marks

Priority of requirement (P) = 5 Marks

$$(C + Q) \times P = (6 + 3) \times 5 = 45\ Points$$

**Note:** These calculations are carried out automatically within the MS Excel Spreadsheet.

The total points available for table B is 5045 points, which is equivalent to 34% of the total RFPS score.

**Appendix B3 Table C:**

The scoring methodology is the same as for table B, however as table C focuses on the service elements rather than the technical elements, the selection of the Type of Delivery (Compliance) category should follow the following guidance:

Type of Delivery (Compliance)	
Out of the box	to indicate that the service is a standard offering
Configuration	to indicate that this service is not a standard offering but would be built.
Customization – free of charge	N/A
Customization – additional cost	to indicate that this service would be built/provided at cost.
Not available	to indicate this is not something the proposer is able to offer

For example, if an optional requirement with a medium priority is assessed as being a standard offering (available out of the box) and the proposer is able to demonstrate how the requirement has exceeded expectations then the equation would be as follows:

Type of Delivery Compliance (C) = 4 Marks

Quality of submission (Q) = 3 Marks

Priority of requirement (P) = 3 Marks

$$(C + Q) \times P = (4 + 3) \times 3 = 21\ Points$$

The total points available for table C is 1300 points, which is equivalent to 32% of the total RFPS score.

**Appendix A: Not exist, appendices start from Appendix B1 below****Appendix B1: General Service Level Agreement (SLA)****11.1 SYSTEM AND SERVICE COVERAGE**

The selected vendor will provide a Platform as a Service to the range of authorized users specified in the technical and service requirements. The platform and service should be accessible by authorized users from any country.

**11.2 SYSTEM**

## Definitions

- a. **System Availability** - The percentage of time the system is available for use, 100% means that the system is it is always available.
- b. **Return to Operation** - The length of time to return to normal operation following a service/system failure.
- c. **Failover/failback period** - The period in which data could be lost as a result of a return to service following a system/service failure.
- d. **System Monitoring** – The frequency with which the vendor will monitor the system to ensure normal operation
- e. **Verification Response Times** - The time it takes for the system to process a verification
- f. **Implementation Date** - The date on which a minimum viable solution is available to go live in the first 3 countries.
- g. **Excused Downtime**” means: (i) Maintenance Time up to two (2) hours per month; and (ii) any time the Service is not Available due to circumstances beyond the Proposer’s control, including without limitation, modifications of the Service by any person other than the Proposer or a person acting at Proposer’s direction, a Force Majeure Event, general Internet outages, computer and telecommunications failures and delays, and network intrusions or denial-of-service or other criminal attacks.
- h. **Maintenance Time** means the time the Service is not available due to service maintenance.

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### 11.3 SERVICE LEVELS

Activity	Required Service Level
System Availability	99.5%
Return to Operation	Proposer to provide proposed SLA with costs
Failover/Failback Period	Proposer to provide proposed SLA with costs
System Monitoring	24/7
Verification Response Times	>0.5 second average and a max of 1 second
Implementation Date	Within 4 months of the contract award for 3-4 countries
Excused downtime	Up to two (2) hours per month
Maintenance downtime	Up to two (2) hours per month
New Dashboard user set up	Initial response to a request within 0.5 day and then 0.5 day to set up following approval
Update of User Profile	0.5 Days
Unlock User Profile	Requests to unlock these should be completed within 2 hours
Helpdesk	All logged requests to the Helpdesk will receive a response based on assigned priority. The proposer should list the normal lead-times against each of the following levels of priority: Low, Medium, High and Critical. This should include the lead-time for initial contact and then the target resolution lead-time goal. The proposer should also state which elements of the support fall into each of these categories e.g. Verification application none-responsive.

### 11.4 ESCALATION PATH

- Within any subsequent contract, vendor will provide a named service delivery manager to provide regular operational status reporting and be principle contact for operational performance escalations, including change control processes.
- Named account manager to interact with UNICEF's nominated contact and to support non-commercial planning/forecasting activities required during the contract period.
- Named individuals' CVs to be reviewed and agreed by UNICEF in advance. Contacts to be reviewed and updated bi-annually as appropriate.



## Annex B

## Appendix B2: Proposer Self-Checklist

Proposers shall complete the following check list and submit with their Technical Proposals:

<b>A</b>	<b><u>Proposer has completed and included in the Proposal:</u></b>	YES	NO	Comments (Please indicate in your proposal where to find the relevant information)
1	The minimum details required in the Technical Proposal.			
2	Duly authenticated business registration or certificate and other supporting documents as evidence of their solid presence or representation in their country of domicile.			
3	Names of subcontractors that the vendor is planning to use to provide the services, if any, has been disclosed in the technical proposal.			
4	Three (3) completed Client Reference Forms using the template contained in <b>Appendix B5</b> providing references of clients to whom the Proposer is currently providing or have provided similar services than described in this TOR within the last five (5) years.			
5	All client references have confirmed availability to provide writing responses to UNICEF's inquiries (if requested).			
6				
7	Completed Appendix B2 (this form)			
8	Completed <b>Appendix B3 Table A</b>			
9	Completed <b>Appendix B3 Table B</b>			
10	Completed <b>Appendix B3 Table C</b>			
11				
<b>B</b>	<b>Proposer has completed and included in the Commercial Proposal:</b>			
12	Price Proposal, in accordance with instructions and as per the format provided in <b>Appendix C</b> ("Price Schedules and Instructions") to this RFPS, in U.S. dollars (USD).			
<b>C</b>	<b>Administrative Requirements</b>			
13	Technical and Financial proposals have been emailed as separate <b>attachments and following all instructions.</b>			
14	Technical Proposal <b>does not</b> contain information of financial nature.			
<b>D</b>	<b>Legal Requirements</b>			
15	Details of any current legal action the company is involved in, are included in the proposal. Please indicate where.			
16	UNICEF General Terms and Conditions for Services (GTCs) ( <b>Annex A</b> ) have been			

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	<p>reviewed and are (please mark whatever option is applicable):</p> <p><input type="checkbox"/> fully acceptable, or.</p> <p><input type="checkbox"/> Reviewed by vendor's legal team and comments are provided. Please indicate where proposed amendments/comments can be located.</p> <p><b>Note:</b> Please note that changes to UNICEF's General Terms and Conditions will be <b><u>viewed less favourably and may result in your proposal not being selected for award</u></b>. Likewise, notification of intend of award to a vendor does not mean UNICEF's acceptance of deviations or modifications on UNICEF GTC's as proposed by vendor.</p>			
17	<p>In addition, Proposers must submit with their proposals a complete set of <b>any additional terms and conditions</b>, which they expect to have included in the Contract negotiated with UNICEF.</p> <p>Confirm submission, <b>if any</b>, and indicate where the additional set of terms and conditions can be located.</p> <p>Please note that any additional terms and conditions by vendor will be taken into account to determine the acceptability of a Proposal and might <b>result in the proposal not being eligible for award at any point during the procurement process</b>.</p>			
18	<p>Proposer adheres to the General SLA requirements as outlined in Appendix B the TOR. (please mark whatever option is applicable):</p> <p><input type="checkbox"/> Yes or.</p> <p><input type="checkbox"/> No. Reviewed by vendor and comments are provided. Please indicate where comments on SLA can be located.</p>			

## Annex B

## Appendix B3: Technical Proposal Requirements Compliance Sheet

**Table A – Qualifying Requirements**

Table	Area	Ref	Requirement	Priority (P)	Mandatory or Optional	Compliant (Y/N)	Proposer's Proposal Page/Section Reference for explanation and supporting documents
A	GxP, Auditability, confidentiality	GTR-REQ-238	The Proposer must have experience of providing validated systems to the Healthcare Industry.	H	Mandatory		
A	Qualifying Requirement	GTR-REQ-174	The verification capability is available immediately and is in commercial use today.	H	Mandatory		
A	Qualifying Requirement	GTR-REQ-175	The verification solution must be built on a system with the capability of supporting full traceability using EPCIS standards.	H	Mandatory		
A	Qualifying Requirement	GTR-REQ-176	The Proposer must have practical experience and live examples of receiving serialization data from manufacturers, for example to support the EU FMD.	H	Mandatory		
A	Qualifying Requirement	GTR-REQ-177	The Proposer must be able to start immediately and committed to the rapid set up, deployment and support of the solution.	H	Mandatory		
A	Qualifying Requirement	GTR-REQ-178	The Proposer should have delivered solutions into Low Middle Income Countries (LMICs), specifically in the deployment of traceability and verification tools. Experience of the following will be of particular interest: - Application deployment in poor network/ low bandwidth environments - Interfacing to local systems through APIs/ SDKs - Working with national governments to develop implementation plans	H	Mandatory		

**Note:** The above table is for illustration purposes only and the actual table can be found in the attached Requirement Compliance Sheet Excel document.

**Table B – Functional and Technical Requirements****Table C – Implementation and Operation Services Requirements**

Table	Area	Ref	Requirement	Priority (P)	Mandatory or Optional	Compliance (C)	Highest Possible score	Lowest Pass	Proposer's Proposal Page/Section Reference for explanation and supporting documents
B	Dashboard Reporting	GTR-REQ-029	The dashboard must be able to breakdown activity by at least the following: country, geo location, user (persona level), GTIN/SSCC, Batch, Time, verification response, verification type.	H	Mandatory		60	35	
B	Dashboard Reporting	GTR-REQ-030	Access to the dashboard must be secured against unauthorized access and protected from DoS attacks. It must support industry standards for data transmission security (HTTP, HTTPS, End-Point Encryption, AS2, etc.).	H	Mandatory		60	35	
B	Dashboard Reporting	GTR-REQ-031	As with the rest of the system, the dashboard must have the capability to support data segregation, data access and feature access restrictions and support role based authorizations.	H	Mandatory		60	35	
B	Dashboard Reporting	GTR-REQ-033	The dashboard should be available from all countries to which verification tools are provided.	M	Mandatory		36	21	
B	Dashboard Reporting	GTR-REQ-034	The data used by the dashboard must be exportable in excel and CSV format. In addition, connection to the data source should be available for common analysis tools such as Power BI or Tableau.	M	Mandatory		36	21	
B	Dashboard Reporting	GTR-REQ-044	The GTR must provide capability to communicate alerts to users or external systems as 'Notifications'	M	Mandatory		36	21	
B	Dashboard Reporting	GTR-REQ-045	GTR must provide a report of notifications communicated	M	Mandatory		36	21	
B	Dashboard Reporting	GTR-REQ-046	GTR must include a serialized item by lot/batch report which displays all serialized items associated to a given lot/ batch	M	Optional		21	12	
B	Dashboard Reporting	GTR-REQ-047	GTR must include a serialized item aggregation report which displays the parent/child relationship between serialized containers	L	Optional		7	4	
B	Dashboard Reporting	GTR-REQ-048	GTR must include a generic serialization query report which allows users to query events by selected parameters including but not limited to: • Date/Time range of event • Location • Product • Event Description • Unique Identifier (GTIN or SSCC) • Lot Number • Expiration Date	M	Mandatory		36	21	
B	Dashboard Reporting	GTR-REQ-049	GTR must include a generic serialization query report which allows users to query serialized items by selected parameters including but not limited to: • Date/Time range of event • Location • Product • Event Description • Unique Identifier • Lot Number • Expiration Date • Pharmacovigilance ID	M	Mandatory		36	21	
B	Dashboard Reporting	GTR-REQ-050	All Reports must allow users to filter, sort and search by any data field included in report output	M	Optional		21	12	
B	Dashboard Reporting	GTR-REQ-051	GTR must employ a data visibility architecture which enables configuration of what report output should be visible to which users/client systems. Example: User A can only see serialized items at Location A while User B can only see serialized items at Location B	H	Mandatory		60	35	
B	Dashboard Reporting	GTR-REQ-052	GTR must log all alerts generated during system use	H	Mandatory		60	35	
B	Dashboard Reporting	GTR-REQ-195	Dashboard user should be able to write a note against a verification failure event.	H	Mandatory		60	35	
B	Dashboard Reporting	GTR-REQ-210	The dashboard must be able to produce reports where the data is anonymized by country, manufacturer and product and these views/ reports allocatable to specific user profiles.	M	Mandatory		36	21	
B	Dashboard Reporting	GTR-REQ-211	The GTR must have a process for putting user accounts on hold which have not been active for a configurable time period, e.g. 3 months.	M	Mandatory		36	21	
B	Dashboard Reporting	GTR-REQ-214	The Dashboard must be available in at least English and French (headers as a minimum).	H	Mandatory		60	35	
B	Dashboard Reporting	GTR-REQ-233	When a verification request triggers suspect activity due to the same GTIN-5N being scanned in multiple countries, all relevant country contacts should be notified.	H	Mandatory		60	35	

**Note:** The above table is for illustration purposes only and the actual table can be found in the attached Requirement Compliance Sheet Excel document.



## Annex B

## Appendix B4:

## Demo

No.	Criteria	Points	Comments
1.	Quality of Demo (Organization, Presentation, etc).	5	The scoring will use a 0-1-3-5 methodology.  0 – Criteria not met 1 – Partly met the criteria 3 – Met the criteria 5 – Exceeded the criteria
2.	Understanding the scenarios in Appendix B6 and requirements in Appendix B3.	5	
3.	Demonstration of solutions which meet these scenarios and requirements.	5	
4.	Relevant experience and knowledge.	5	
	<b>Max scoring (totals):</b>	<b>20</b>	

## Project Plan

No.	Criteria	Points	Comments
1.	Timelines and milestones – the schedule meet project expectations.	5	The scoring will use a 0-1-3-5 methodology.  0 – Criteria not met 1 – Partly met the criteria 3 – Met the criteria 5 – Exceeded the criteria
2.	Relevance of activities and completeness.	5	
3.	Level of detail.	5	
4.	Dependences and issues clearly shown.	5	
	<b>Max scoring (totals):</b>	<b>20</b>	



## Annex B



## Appendix B5: Client Reference Information Sheet

Please provide the following contact information for each client reference submitted (Please expand the form if needed).

## Reference 1

Company Name:	
Contact Name and Title:	
Phone:	
E-mail:	
Address:	
Value of Contract:	
Company Size (number of employees)	
Industry/Market Sector (private, public, non-for profit).	
Detailed description of the actual services provided by your company (i.e. types, geographical coverage etc.).	
Duration of the services (months): Start date (month/year): Completion date (month/year):	
Describe Reference Site Installation:	

## Reference 2

Company Name:	
Contact Name and Title:	
Phone:	
E-mail:	
Address:	
Value of Contract:	
Company Size (number of employees)	
Industry/Market Sector (private, public, non-for profit).	
Detailed description of the actual services provided by your company (i.e. types, geographical coverage etc.).	
Duration of the services (months): Start date (month/year): Completion date (month/year):	
Describe Reference Site Installation:	



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## Reference 3

Company Name:	
Contact Name and Title:	
Phone:	
E-mail:	
Address:	
Value of Contract:	
Company Size (number of employees)	
Industry/Market Sector (private, public, non-for profit).	
Detailed description of the actual services provided by your company (i.e. types, geographical coverage etc.).	
Duration of the services (months):	
Start date (month/year):	
Completion date (month/year):	
Describe Reference Site Installation:	

UNICEF reserves the right to contact each client reference provided by Proposer. It is Proposer's responsibility to ensure that the contact details provided above are accurate and to ensure that your client will be responsive to UNICEF's written inquiries.

Please Note: Failure to include all the requested information may result in your submission being less favorable and/or disqualified. Please provide additional documentation if necessary.

## Appendix B6: Use Cases for GTR

**IMPORTANT:** The steps described for each scenario may not represent the way in which the proposed system operates. The Proposer should take this into consideration when designing the best way to achieve each scenario.

### Scenario #1. Verification request - App

#### 1. Introduction

Stakeholders will utilise verification tools to enable them to verify products within the legitimate supply chain. These verification tools will scan the details of the physical pack so they can be compared against serialization data uploaded by the manufacturers.

Business Processing Requirements are:

- The application is able to provide services other than verification (covered in other use cases), therefore the user can select which activity they wish to carry out from a list within the verification application on their phone.
- There is a check carried out by the app to ensure the expected data is captured prior to sending a verification request to the GTR. This will prevent the GTR returning negative verification requests when the incorrect barcode is scanned, or the data has been encoded incorrectly.
- The application is able to deal with loss of network connection and therefore can store scanned data until back on-line.
- The verification can occur at either a batch level or serial number level.
- The GTR is able to identify which GTINs are active in the system, i.e., manufacturers are uploading serialization data, in order to prevent negative verification messages for GTINs which are not held in the system.

#### 2. Roles definition

The actors involved in this process are:

**Verification User:** This is the user of the verification tool (application). The user can be any stakeholder which downloads and uses the verification tool (application). They only have the ability to verify a pack or look up electronic content through a scan and have no other system functionality or rights.

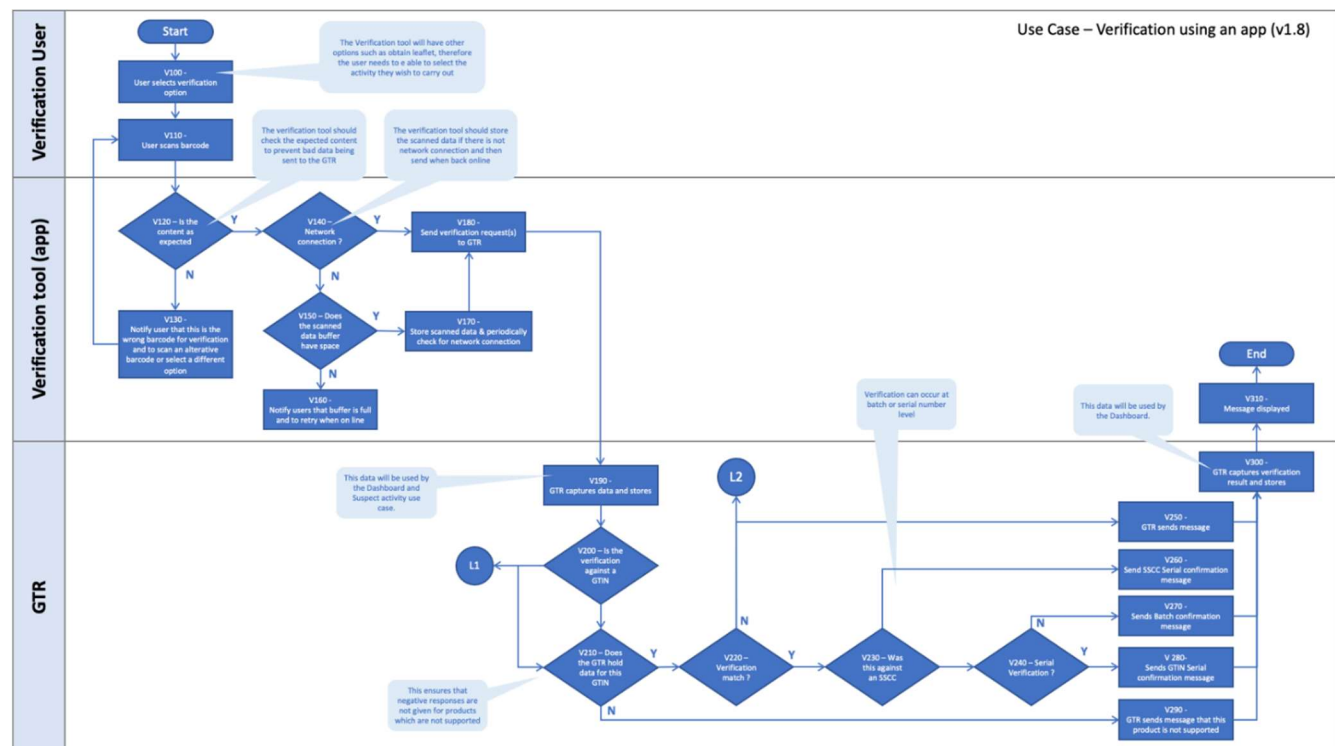
## Annex B

**3. Description of the Scenario**

The user wishes to verify using the verification tool (application). The user will scan a barcode on either the secondary pack or logistic item; based on the scanned data the GTR will check for a matching record against the batch serialization data provided by the manufacture. The result of the verification request will be captured by the GTR and a response provided to the user.



For this scenario it is expected that all the information required for submitting a verification request is provided by the verification tool (application). The pack data will be captured by the application through scanning the DataMatrix or 128 linear barcode. The time and geolocation will be provided by the smart device which runs the application, and the persona data will be manually entered into the application by the user when the application is first set up.

**4. Process flow**

## Scenario #2. Verification failure

### 1. Introduction

Not all verification requests will result in a successful verification. Verifications which fail need to be notified to relevant Dashboard Users so that they can follow local procedures to investigate.

Business Processing Requirements are:

- Verification failures which do not contain a recognised GTIN are flagged in the system and notified to a system administrator so they can follow up (Manufactures cannot be notified of a verification failure where there is no matching GTIN).
- The relevant Dashboard Users, to send the verification failure to, must be identifiable based on the data from the verification request e.g. the GTIN will allow the identification of the Manufacturer, Geo-location will allow the identification of National Authority, etc.
- The system must keep a log of all activities taken by users to allow a traceable record of who has accessed the system and added/ changed data.
- The system should be able to send verification failure notifications via various communication methods including email and text type message.
- Notes must be able to be added to a verification failure so that the results of any investigation into the cause of the failure can be captured.

### 2. Roles definition

The actors involved in this process are:

**Dashboard User:** This is the user of the Dashboard. They can be any users who have been granted access to the Dashboard and have set up a profile in the system. They are in principle the recipients of the verification request data in the system. Typical Dashboard Users will include the manufacturer of the vaccine, a country regulator/ authority, or a donor organization.

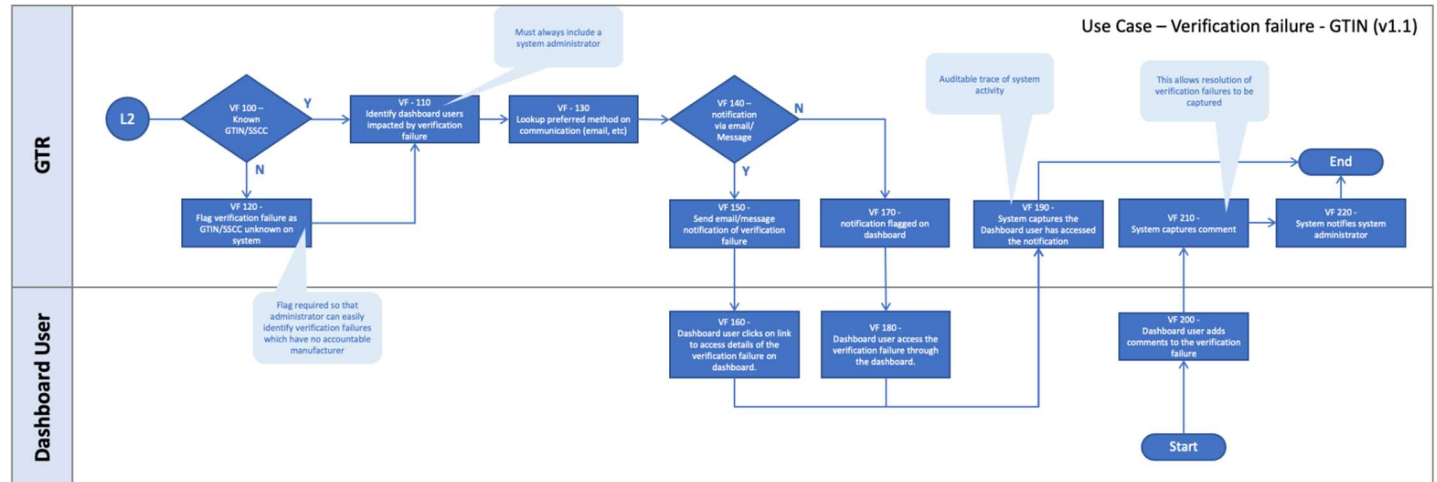
### 3. Description of the Scenario

Following an unsuccessful verification request the system identifies the relevant stakeholders (Dashboard Users) and sends them a notification. Dashboard Users are identified through either 1) the product master data - for manufacturers, 2) the Dashboard User data - captured when setting up a new user onto the system or, 3) Default settings in the system e.g., an administrator can see all activity.

Once the Dashboard User has been notified, they are able to view the failed verification through the Dashboard and also add comments to capture the root cause of the failure. Not all verification failures are as a result of falsified products, there can be other causes such as the manufacturer failing to

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upload serialization batch data, the product being out of scope of the system or a potential technical issue.

**4. Process flow**

## Scenario #3. Suspect Activity

### 1. Introduction

Verification of a product using an incorrect serial number, batch or expiry date is not the only activity which could identify falsified products. Repeated scanning of the same GTIN and Serial Number is one example of activity which could suggest falsification. The following scenario enables the system to monitor for suspect activity.

Business Processing Requirements are:

- The system is able to have a threshold set for the number of times a GTIN+SN is scanned without triggering a suspect activity notification.
- The system is able to detect the country in which the first verification request occurs so that subsequent verification requests outside this country can be notified as suspect activity.
- The system is able to set a threshold for a repeated verification request taking place in a different location.
- The system is able to notify relevant users of suspect activity caused by:
  - Multiple verifications of a GTIN+SN
  - Verification of a GTIN+SN in different locations within a limited time period
  - Verification requests of a GTIN+SN outside of the first country in which a verification request occurs.
  - Verification requests of the same GTIN+SN but with different Batch and or Expiry dates.

### 2. Roles definition

There are no roles within this scenario and the activity is automated and carried out by the GTR following a verification request made in scenario 1.

### 3. Description of the Scenario

Following a verification request the verification is checked to see if the GTIN+ SN has been verified before, if it has then additional checks are carried out to establish if the request could be considered suspect. There are several factors which can be used to flag potential suspect activity:

- **Repeated verification requests of the same GTIN+SN.** This could suggest that more than one product has the same GTIN+SN, as is the case with a falsified product which has copied a real GTIN+SN. A threshold level needs to be set for this type of notification as it is possible that the same GTIN+SN could be scanned by different actors in the supply chain.
- **Verification requests in different countries of the same GTIN+SN.** Although it is possible that a product will move across national borders, verification requests from different countries



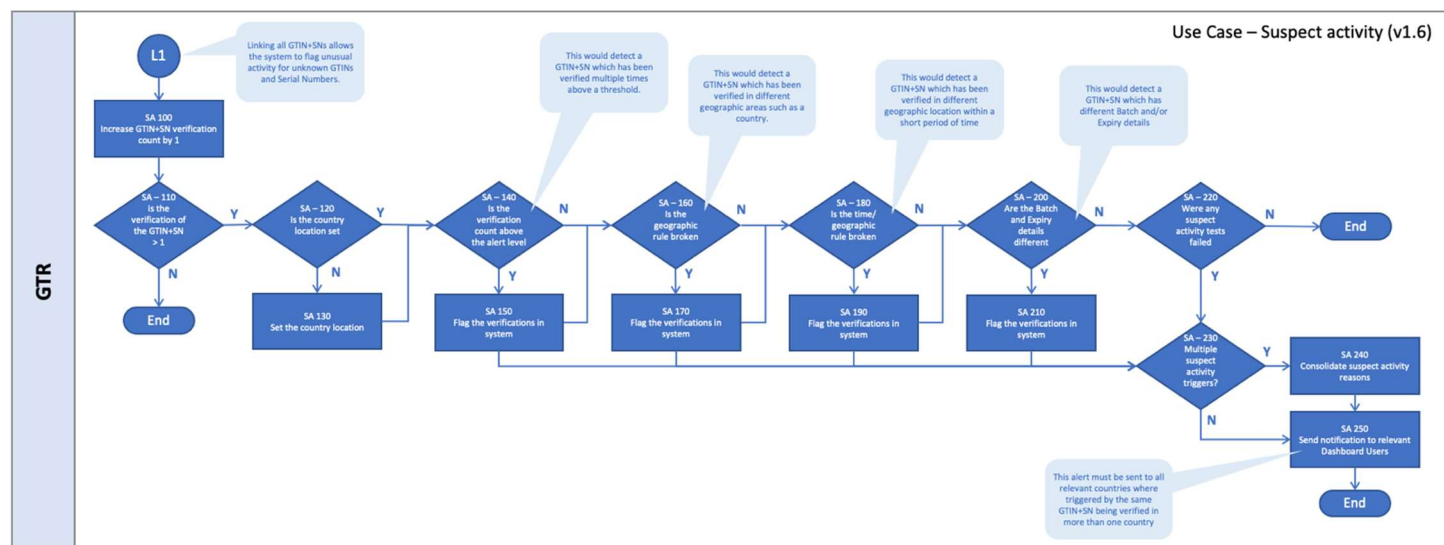
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of the same GTIN+SN is expected to be unusual and would justify relevant stakeholders being notified.

- **Verification requests in different geolocations within a limited time frame.** It is not physically possible for the same product to be in two different places at the same time. Checking the time and location of verification requests of the same GTIN+SN can help identify if it is likely the product could have been scanned in these two different locations and flag those which look suspect.
- **Verification requests of the same GTIN+SN with different Batch and or Expiry Dates.** The Batch and Expiry date should be consistent across scans of the same GTIN+SN, if these differ then it is likely that the product is suspect.

These checks are carried out on all GTIN+SN requests, even those which do not verify, which allows suspect activity to be flagged and notified even for GTINs and Serial Numbers which are either out of scope or potentially falsified. If any of the activity is identified as suspect, then the verifications are flagged in the system and the appropriate stakeholders are notified.

## 4. Process flow





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## Scenario #4. Dashboard User Set Up

### 1. Introduction

The Dashboard provides visibility of verification activity and allows authorised users to comment on verification failures. This scenario covers the process for obtaining and setting up a new Dashboard User account.

Business Processing Requirements are:

- New users can only initiate setting up a Dashboard User account following the System Administrator sending them a link to the system.
- System security is in place e.g. CAPTCHA to ensure a person is logging onto the system and a secondary authentication method is in place.
- Mandated fields are checked by the system to ensure they are completed.
- System Administrator grants access to system through promoting a new account to being live.

### 2. Roles definition

The actors involved in this process are:

**System Administrator:** This is a user of the system with administrator privileges. Their role in relation to this scenario is to support new users with setting up a new account and also review prior to the new account going live to ensure the user has a legitimate right to access the system,

**Dashboard User:** This is the user of the Dashboard. They can be any user who have been granted access to the Dashboard and have set up a profile in the system. They are in principle the recipients of the verification request data in the system. Typical Dashboard Users will include the manufacturer of the vaccine, a country regulator/ authority, or a donor organization.

### 3. Description of the Scenario

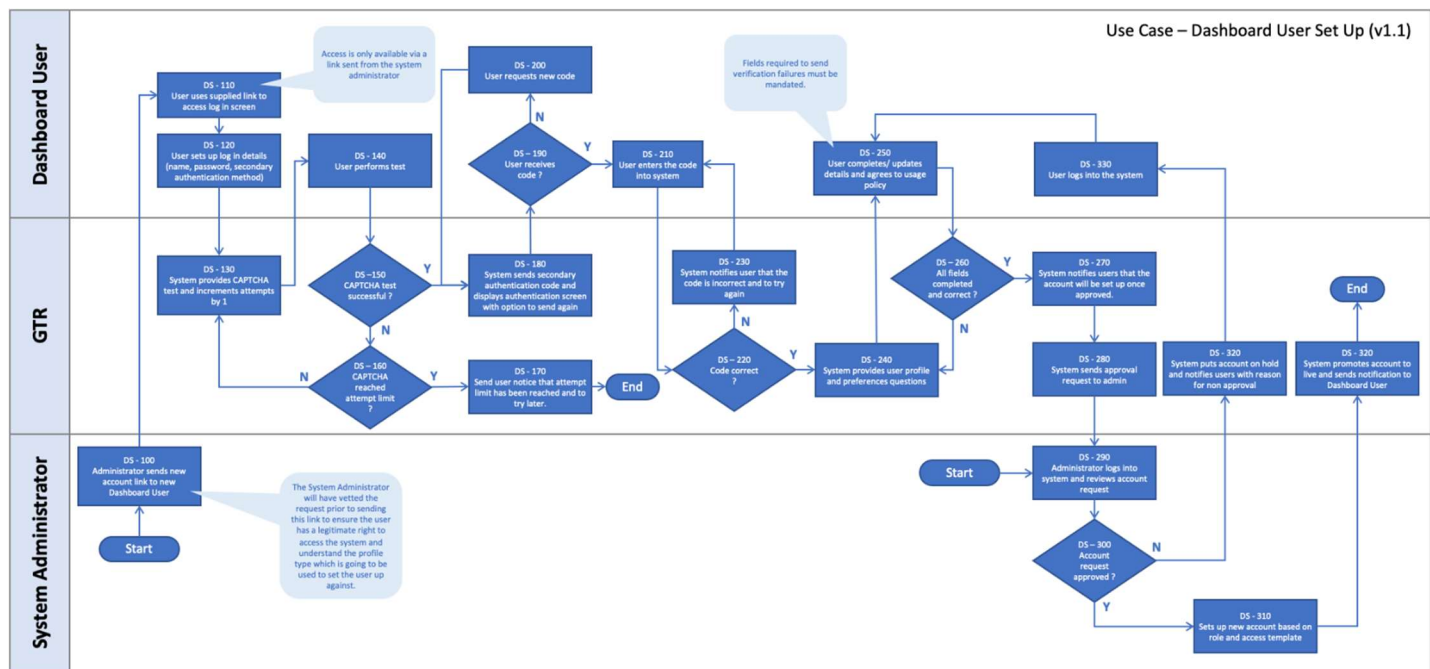
A new user requests access to the dashboard. Once they have contacted the System Administrator, they will be set up with an account to complete the details. The System Administrator will have to carry out some offline checks prior to starting the system set up process to ensure that the new user is a legitimate user and has the right to access the GTR.

The new user logs into the system and authenticates their account, they then complete the user account details and preferences and submit the new account request for approval. The System Administrator reviews the new account request and either approves it or puts it on hold. The System Administrator can then subsequently reenter the system and approve the account following the new user updating their details.

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Once the System Administrator has approved the new user, they will set them up with a profile appropriate to the level of access the user should have. This will include the data which they can see and the type of reports they can get from the Dashboard, this may be done by selecting an appropriate user profile template.

#### 4. Process flow



**Annex B****Scenario #5. Access to Electronic/ Online Content****1. Introduction**

Many Covid-19 vaccine packs are providing the user with the ability to access product information electronically and on-line. There are several reasons for this including the ability to provide up to date information and a lack of leaflets in local language in the physical pack.

In addition to using the verification application to verify packs, users are likely to try and use it also scan and access electronic content. It is important that the user has a seamless experience and therefore access to electronic content should be made available via the verification application.

There are 3 main ways in which we can expect barcodes on vaccine packs to provide a link to electronic content:

1. The first of these does not use a GS1 standard and uses a QR code with a URL embedded.
2. The second is a QR code using the GS1 Digital Link Syntax to direct the user to a GS1 resolver server.
3. The third is via the GS1 2D DataMatrix using standard application identifiers, which when scanned with the verification application will generate a GS1 Digital Link URL and direct the user to a GS1 resolver.

The verification application should be able to offer the user electronic content via any 3 of these methods.

Business Processing Requirements are:

- Ability to access electronic content online through the use of either a QR or 2D DataMatrix using one of three syntax, a URL, a GS1 Digital Link or via creation of a GS1 Digital Link based on the application identification data.

**2. Roles definition**

The actors involved in this process are:

**Verification User:** This is the user of the verification tool (application). The user can be any stakeholder which downloads and uses the verification tool (application). They only have the ability to verify a pack or look up electronic content through a scan and have no other system functionality or rights.

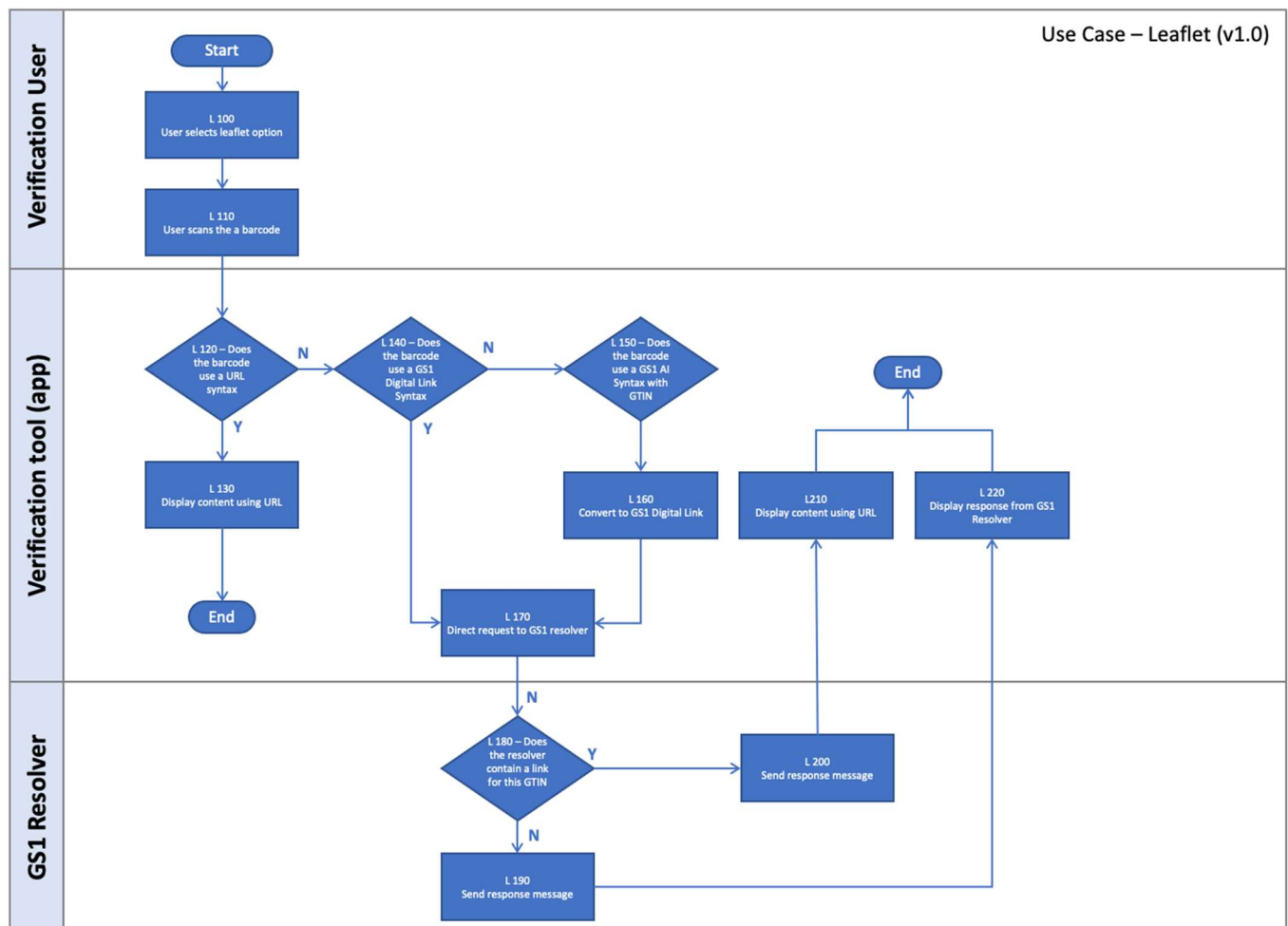
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**3. Description of the Scenario**

The Verification user selects the option on the application to access electronic content. They then scan a barcode on the pack, prompted by the application. Depending on which barcode is scanned and the syntax of the content in the barcode one of 3 things takes place:

- 1) A URL is captured, and the user is directed to the online content.
- 2) A GS1 Digital Link is captured the user is directed to the online content via a GS1 Digital Link resolver.
- 3) The GTIN, Batch and Expiry data is captured and a GS1 Digital Link is generated by the application and the user is directed to the online content via a GS1 Digital Link resolver.

[https://www.gs1.org/docs/Digital-Link/GS1\\_Digital\\_Link\\_Standard\\_URI\\_Syntax\\_r\\_i1-2\\_2021-01-16.pdf](https://www.gs1.org/docs/Digital-Link/GS1_Digital_Link_Standard_URI_Syntax_r_i1-2_2021-01-16.pdf)

**4. Process flow**



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**Appendix C**

**C – Price Schedule and Instructions**

All proposers must quote their prices in the table below (see PowerPoint attachment named 'Price Schedule and Instructions Appendix C' for further information). Any proposer that deviates from the format will be disqualified.

**Price Table**

	Price Element	Year 1		Year 2	
		A			
<b>Annual Subscription (Baseline scope)</b>	System Build	A	\$000,000.00		
	Hosting	B	\$000,000.00	C	\$000,000.00
	Management & Operation (Inc. Training)		\$000,000.00		\$000,000.00
	Maintenance		\$000,000.00		\$000,000.00
	Helpdesk services		\$000,000.00		\$000,000.00
<b>Annual Subscription (Baseline scope)</b>	Hosting	D	\$000,000.00		
	Management & Operation (Inc. Training)		\$000,000.00		
	Maintenance		\$000,000.00		
	Helpdesk services		\$000,000.00		

Proposers should include any other costs not provided for in the price schedule including a detailed description of those costs and whether they are one off or part of the annual subscription in year 2 and subsequent years.



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**Appendix D – UNICEF SECURITY REQUIREMENTS (CLASS II SYSTEM)**

Please refer to separately attached document labelled 'UNICEF Security Requirements'