[Publish Date]

Global Family Planning Visibility and Analytics Network (GFPVAN)

Proposal Template - Solution #2017-045

Global Family Planning Visibility and Analytics Network

(Global FP VAN)

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# Submission Instructions

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Proposals are to be submitted no later than February 21st, 2018. The proposal is limited to 70 pages (not including cover page, table of contents, submission instructions, and attachments) and responses should be provided in this template. Proposals must be submitted to GlobalFPVAN@rhsupplies.org. Please see the RFP Addendum for the list of abbreviations.For sections 2 – Executive Summary; 3 – Additional Information; 4 – Partnership – Experience; and 5 – Partnership – Management Approach: please write your narrative responses using 1-inch margins and 11-point font.For sections 6 – General System Requirements; 7 – Functional Requirements; and 8 – Technical Requirements, the requirements have been laid out in the table with a specific format: * For each requirement, provide your response/notes in the response column, following the table format.
* For each requirement, indicate if your solution will meet that requirement out of the box (O), can meet the requirement with configuration (C), or will require development (D) to meet the requirement. Put the appropriate O, C or D in the column labeled ‘O/C/D’.

**Example**:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| # | Title | Description | Response / Comments | Priority | O/C/D |
| F-AD-01 | User Roles | A single user may be a member of multiple roles. | System supports this out of the box. Users can be members of multiple roles and security can be assigned to each role. Additionally, a report can run at any time to indicate what the user has access to across all roles that they have been assigned to. | Mandatory | O |

 |

# Executive Summary

|  |  |
| --- | --- |
|   | Provide an executive summary introduction to your company and your solution. Focus on what you see as your core differentiators and how your proposal will help move this community forward.  |

# Additional Information

|  |  |
| --- | --- |
|  | You are encouraged to provide any additional information on your proposed solution, general approach and company here that would act as a differentiator for your organization that are outside of the requirements defined here. This section is limited to 10 pages. |

# Partnership - Experience

|  |  |
| --- | --- |
|   | Provide background on your company. Highlight your * proven track record on providing visibility with global supply chains and your experience in working with public health
* Experience with provisioning SaaS solutions
* Number of years in business / size of the company
* Location(s)
* User / Development Communities – describe your experience and the availability of user community groups that leverage your solution
* Describe the methodology for prioritizing client capability requests for future releases
* Provide refences and contact information for three similar projects or clients
* Provide the number of current customers / clients currently on the proposed SaaS platform

Provide written responses under each of the Partnership – Experience requirements outlined below. |

## P-EX-01 Company Experience

## P-EX-02 Company Financial Overview

## P-EX-03 Location

## P-EX-04 User / Development Communities

## P-EX-05 Feature Enhancement Requests

## P-EX-06 References

## P-EX-07 Client Base

# Partnership – Management Approach

|  |  |
| --- | --- |
|  | Describe your approach to project governance and implementation and support and estimated staffing needs. * Outline the critical assumptions that are underpinning your solution proposal
* For your Project Structure, frame your approach in relationship to Agile Methodologies
* When describing KPIs, describe your in-process and project based KPIs that will be used to gauge progress
* Under Proposed Team & Roles, be sure to cover the % dedication to this effort during the pilot. CVs may be attached separately.
* Describe your support model and attach a sample service-level agreement
* Describe your regulatory and data privacy certifications and the company approach to global data privacy

Provide written responses under each of the Partnership - Management Approach requirements outlined below. |

## P-MA-01 Assumptions

## P-MA-02 Project Structure & Governance Model

## P-MA-03 Proposed Implementation / Launch Plan

### Approach

### Timeline

## P-MA-04 Proposed Training Plan

## P-MA-05 Proposed Key Performance Indicators

## P-MA-06 Proposed Team & Roles

## P-MA-07 Support Model

## P-MA-08 Regulatory and data privacy

# General System Requirements

|  |  |
| --- | --- |
|  | Describe your solution’s core capabilities and what is needed to produce that capability:* For each requirement, provide your response/notes in the response column, following the table format.
* For each requirement, indicate if your solution will meet that requirement out of the box (O), can meet the requirement with configuration (C), or will require development (D) to meet the requirement. Put the appropriate O, C or D in the column labeled ‘O/C/D’.

O = “Out of box” is something that comes with the base solution at the time of the project kick-off. It is considered core functionality.C = “Configurable” is something that comes with the base solution at the time of the project kick-off. It requires some specialized level of effort to enable the functionality. Configuration is largely something capable of being done through a user interface and requires knowledge of the solution. It requires a moderate level of subject-matter knowledge and may include light changes to such things as configuration files.D = “Development effort required” is something that needs more work to make the functionality available either at the project kick-off or at a time later in the project implementation plan. It is considered development regardless of whether it is being done for the core product or via a plugin/add-on. |

## Workflow

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| # | Title | Description | Response / Comments | Priority | O/C/D |
| G-WF-01 | Process Workflow | The solution will need to support multiple workflows to support supply plan updates and exception management. The workflow engine will need to be able to:* support content-driven decisions for different conditions (i.e., route exception requests to countries for approval based on conditions—for example, missing data, individual who opened the request, and criticality).
 |  | Mandatory |  |
| G-WF-02 | Process Workflow Administration | Administration for the workflow must have a user interface for performing the basic operations, such as enabling, disabling, associating user roles, setting labels and conditions for alerts. |  | Mandatory |  |
| G-WF-03 | Process Workflow Template Design | The CTA should be able to configure simple form submissions, reviews, and approval screens with the ability to connect fields to reference data. |  | High |  |
| G-WF-04 | Logging & Tracking of State Transitions | Workflow state transitions will be logged in such a manner to track process performance metrics, such as:* Average/min/max # of days item in state.
* Average/min/max cycle time for the workflow.
 |  | Mandatory |  |
| G-WF-05 | Workflow Attachments & Notes | Workflow must have the ability to record notes, commentary, and associate files (PDF, Docs, PPT, JPG, XLS) with the workflow. |  | Mandatory |  |
| G-WF-06 | Workflow Linking | Workflow must support linking between two record types. An example of this is:* CTP creates multiple scenarios & selects one for a recommendation.
* CTP must have the ability to associate that scenario to recommendation workflow.
 |  | High |  |
| G-WF-07 | Filterable Views on Workflow States | User must be able to view and filter all items in the workflow by state. An example of this would be:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Open Emergency Request | In-Data Review | In-Methodology Validation | Recommendation Made | Conduct Follow-up |
| 10 | 4 | 3 | 7 | 2 |

 |  | Mandatory |  |
| G-WF-08 | Workflow Approval Screen | When a person has been marked as an approver in a workflow step, he/she will need a view that shows all the actions awaiting his/her approval.Example:* An exception management request was created by a CTP for a country. The CDP should be able to log in and see a list of these items awaiting his/her approval.
 |  | High |  |
| G-WF-09 | Alerts  | Users will have the ability to subscribe to alerts on state transitions of a workflow, in alignment with their security profiles or when a KPI exceeds a threshold.Examples would be:* Email is generated to a CDP that an exception request has been approved.
* WhatsApp message is sent to a CDP that a shipment date has been updated.

Alerts are visible within and external to the application. Describe what options the solution has for providing alerts. |  | High |  |
| G-WF-10 | Notifications | Users will have the ability to subscribe to notifications on state transitions of a workflow, in alignment with their security profiles or when a KPI exceeds a threshold.Examples would be:* A CTP logs into the system and can see the change report of all the confirmed orders that have been updated.
* A CDP logs in and can see the change report of the changes to the estimated shipping dates.

Notifications are visible within the application. |  | Mandatory |  |

Note: CDP=country data provider; CTA=control tower administrator; CTP=control tower planner; KPI=key performance indicator; PPT=Procurement Planning Tool.

## Data Management

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| # | Title | Description | Response / Comments | Priority | O/C/D |
| G-DM-01 | Master Data Management—Initial Setup | Master data, such as product master and vendor master, is essential to the functioning of the system.**Types of master data:*** Product master
* Product categories
* Vendor/customer master

**Link products and categories**: The system must allow the user to create hierarchical relationships. The primary hierarchy mapping will support GS1 GPC Classification Standard for product classification. Additional support for classification systems, such as United Nations Standard Products and Services Code, is desired.**This will allow the user to**:* Add, update, and disable existing reference data.
* Create hierarchical relationships that may be added, updated, disabled.

Using the provided UNFPA/USAID–to–GS1 GPC mapping file, describe your solution’s ability to manage the product master. |  | Mandatory |  |
| G-DM-02 | Master Data Management—Scaling Up  | In order to achieve scale, the solution must be able to onboard new countries, programs, procurers, and manufacturers. Until GS1 GPC achieves full-market penetration, each data provider will have unique variations on how to identify his/her product. Describe how your solution will approach the onboarding and mapping process for a new data provider. |  | Mandatory |  |
| G-DM-03 | Reference Data Management | Reference data are essential to the solution and is required to ensure data integrity and consistency.**Types of refence data** include:* Country/region codes
* Units of measure
* Default pricing levels

**This will allow the user to**:* Add, update, and disable existing reference data.
* Create hierarchical relationships that may be added, updated, disabled.
* If available, support GS1 GTIN and GLN identifiers via vendor/location records.

Using the provided UNFPA/USAID vendor master and warehouse records, describe your solution’s ability to manage reference data. Your description should include the ability to manage reference data when there is no GS1 GTIN and GLN identifiers available. |  | Mandatory |  |
| G-DM-04 | Data Quality | Understanding that the data quality and integrity of the system is imperative to the long-term success of the program, the system will be able to run a data integrity report that shows where any data are nonconformant to the current master/reference data. |  | Mandatory |  |
| G-DM-05 | Data Model Access | Provide documentation on the solution’s conceptual-data model, particularly in how it relates to product, item, customer, vendor, order, shipment, and plan. |  | Medium |  |
| G-DM-06 | Traceability | The system will support traceability on additions, changes, and deletion of records. Additionally, when a record is deleted it should be logged in a methodology that allows it to be soft-deleted (marked inactive). Describe your solution’s approach to handling soft deletes.  |  | High |  |
| G-DM-07 | Archive & Purge | To maintain performance and manageability, the solution will have a method for archiving and purging data. Describe the archive and purge process for the system and what limitations there are on size of the data before such actions are required. |  | Medium |  |

Note: CTA=control tower administrator; GLN=Global Location Number; GPC=Global Product Classification; GTIN=Global Trade Item Numbers; UNFPA=United Nations Population Fund; USAID=United States Agency for International Development.

## Interoperability

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| # | Title | Description | Response / Comments | Priority | O/C/D |
| G-I-01 | Integration—Global Data Synchronization Network  | As the community embraces GS1 Standards, master data will be able to be synchronized over GS1 data pools. Describe your solution’s ability to act as a GS1-certified data pool subscriber. It should be noted that subscription timing will depend on the community’s progress in establishing its GS1 data pool subscription to a GS1-certified data pool. The bidder must indicate ability to source master data from a GS1 data pool in the future. During the pilot stage of the GFPVAN, the vendor will be required to connect to an established GS1 data pool. Prior to this time, the vendor will leverage the product master mapping file that is developed and maintained by the UNFPA-USAID Data Trustee group.  |  | Mandatory |  |
| G-I-02 | Integration—EDI/B2B | Describe the formats/structures that your system can use to create EDI/B22B-level integrations. Include your data exchange mechanisms, such as web services, HTTP, JMS (Java Message Service) Queue, etc.Examples of this: * Working with 4PL (fourth party logistics) on ASNs.
* Working with manufactures on B2B.

With ASNs, describe any prerequisites for processing ASN messages (e.g., order data is required before an ASN data record can be loaded). |  | High |  |
| G-I-03 | Integration— Extract Transform Load (ETL)  | Describe the approach for creating and automating ETLs for the system. Include the data exchange mechanism (FTP [File Transfer Protocol] vs. SFTP [Secure FTP] vs. email), what file types / data structures are required, and how data transformations and validation are performed.Examples of this: * PPT—structured Excel file.
* PipeLine—Microsoft (MS) Access database.
* RHI—structured Excel files.
* RHI—XML.
* Country supply plan attachment—structured Excel file.
 |  | Mandatory |  |
| G-I-04 | Integration—Raw Files | Describe how the system may associate unstructured files—such as Word, PDF, PPT—to records in the system, such as a supply plan update or exception management request.  |  | High |  |
| G-I-05 | Integration Workflow / Alert | When data are loaded into the solution, it will have the ability to perform basic validation routines to protect the data integrity of the system.The solution will be able to:* Ensure that the data conforms to master/reference data definitions.
* If it fails, be configurable to either allow the transaction to load or fail the transaction and notify the CTA/CTDA for intervention.
* On a successful load, trigger events (such as alert and/or business rules validation)
* With loads that fail, resubmit it once the errors are corrected.
 |  | Mandatory |  |
| G-I-06 | Integration—Prevent Duplicate Data  | Data integrity is critical to enabling trust and decision-making in the system. The system must detect and prevent duplicate transactions from being loaded from the same source. |  | Mandatory |  |
| G-I-07 | Integration—Duplicate Data Detection  | Since this is pulling together overlapping data from multiple sources, there may not always be a clear system of record. Describe the solution’s ability to detect duplicate data when not sent from the same source. Examples of the this would be when a country supply plan loads a PipeLine database with confirmed order shipments that have also been loaded into the system via the Order and Shipping Tracking process.  |  | High |  |
| G-I-08 | Integration—Eventual Consistency  | Since data flows are loosely coupled and can vary in time, it is not uncommon to have transactions/updates loaded out of sequence. Describe your solution’s mechanism for resolving such timing issues. |  | Mandatory |  |
| G-I-09 | Integration—Historical Data Loads  | The system will need to load historical data. This should be a reusable feature where bulk data may be loaded from historical references.Describe the system’s capability to load historical data that would:* Follow the required master/reference data transformations for a successful load.
* Handle date logic appropriately for placing the records in the past for key reports (e.g., record “create date” would be the current date, but the order “create date” would be sometime in the past).
 |  | Mandatory |  |
| G-I-10 | Integration—System Diagram | Provide a system diagram that describes how your solution will likely integrate the following data sources:* RHI—daily updates, XML/CSV-based feeds.
* PPMR—daily/weekly updates, CSV/SQL-based feeds.
* Country Inventory—monthly, Microsoft Dynamics NAV / OpenLMIS
* Country Commentary / Notes—as needed, to provide context on data provided.
* Supply plan updates—quarterly, unstructured files / commentary

Supply plan updates—quarterly, structured files (Microsoft Access / Excel) |  | Mandatory |  |

Note: ASN=Advanced Shipment Notice; B2B=business-to-business; CDP=country data provider; CSV=comma separated values; CTA=control tower administrator; CTDA=control tower data analyst; EDI=Electronic Data Interchange; GFPVAN=Global Family Planning Visibility and Analytics Network; PPMR=Procurement Planning and Monitoring Report; PPT=Procurement Planning Tool; RHI=Reproductive Health Interchange; UNFPA=United Nations Population Fund; USAID=United States Agency for International Development.

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| --- | --- | --- | --- | --- | --- |
| # | Title | Description | Response / Comments | Priority | O/C/D |
| G-I-11 | GS1 Data Pool Subscriber | As the community embraces GS1 Standards, master data will be able to be synchronized over GS1 data pools. Describe your solution’s ability to act as a GS1-certified data pool subscriber. It should be noted that subscription timing will depend on the community’s progress in establishing its GS1 data pool subscription to a GS1-certified data pool. The bidder must indicate ability to source master data from a GS1 data pool in the future. During the pilot stage of the GFPVAN, the vendor will be required to connect to an established GS1 data pool. Prior to this time, the vendor will leverage the product master mapping file that is developed and maintained by the UNFPA-USAID Data Trustee group.  |  | Mandatory |  |
| G-I-12 | Integration—Confirmed Order Management  | Within scope for the pilot is to provide visibility on confirmed orders and changes to confirmed orders.Using the provided data sample, describe your approach to integrating the confirmed order data from UNFPA and USAID into the solution.**Data Types**:* Country
* Procurer
* Funder
* Purchase order
* Supplier
* Agreed delivery date / estimated delivery date
* Program
* Product
* Quantity
 |  | Mandatory |  |
| G-I-13 | Integration—Estimated Goods Available Date | A critical gap in achieving inbound visibility is the estimated goods available date—the projected date at which the commodities will be ready for shipping. The inability to see this date drives uncertainty into the planning and exception process.During the pilot the vendor, under the guidance of RHSC, will engage with the four pilot manufacturers and identify opportunities to optimize data collection and reporting over the existing process.Describe your solution’s ability to pull in the estimated goods available date and track information updates at a minimum. **Data Types**:* Country
* Recipient
* Product
* Quantity
* Purchase order
* Estimated goods available date
 |  | Mandatory |  |
| G-I-14 | Integration—ASN/GRN | To provide inbound visibility, the solution must be able to gather information from the freight forwarder / shipping networks.During the pilot, the vendor, under the guidance of RHSC, will engage with GHSC-PSM and UNFPA to establish the best way to gather ASN/GRN data through their network. With GHSC-PSM, it could be directly through them or via a 4PL (fourth party logistics) provider. Discussions and analysis with UNFPA will determine the best approach in their case. The solution will map ASNs to the following message types: * Prepare shipment
* Advise delivery
* Transport shipment
* Fulfill delivery
* Report receipt of goods

**Data Types**:* ASN message type
* Date
* Purchase order
* Product
* Qty
* Ship to / recipient
 |  | Mandatory |  |
| G-I-15 | Integration—Country Inventory | During the pilot, the vendor, under the guidance of RHSC, will engage with the two pilot countries and identify opportunities to optimize data collection and reporting over for the existing PPMR / supply plan reporting process.Describe your solution’s ability to pull in country inventory data in an easy, repeatable, and scalable process.**Data Types**:* Organization
* Product
* Qty
* Location
* Average monthly consumption (AMC), months of stock (MOS)

Country 1 is currently using OpenLMIS v3.0 (<http://openlmis.org/>). Data may also be pulled from the PPMR, and discussions will take place with the country to establish the most efficient option for gathering data.Country 2 is using Microsoft Dynamics Nav at the national level (<https://www.microsoft.com/en-us/dynamics365/nav-overview>). Data may also be pulled from the PPMR and discussions will take place with the country to establish the most efficient option for gathering data. |  | Mandatory |  |
| G-I-16 | Integration—PPMR | During the pilot, other countries will continue to use the PPMR for their stock status reporting and exception management.Using the supplied sample data, describe your solution’s ability to integrate this data on a regular basis to allow the CTDA and CDPs to have a global view of stock conditions in a single location.**Data Types**:* Country
* Program
* Product
* Qty
* Average Monthly Consumption (AMC), Months of Stock (MOS)
* Workflow state
* Qualitative information
 |  | Mandatory |  |
| G-I-17 | Historical Data Load—Order / Shipping Data | RHI holds historical shipping data that are useful in understanding trends, lead times, and aggregate totals.Using the supplied sample data, describe the solution’s approach to loading one year of historical shipping data. **Data Types**:* Country
* Procurer
* Funder
* Purchase order
* Program
* Product
* Qty
 |  | Mandatory |  |
| G-I-18 | Historical Data Load—Country Stock Status | PPMR holds historical stock status data that are useful in understanding trends, lead times, and effective use. Using the supplied sample data, describe the solution’s approach to loading two years of historical stock status data.**Data Types**:* Country
* Program
* Product
* Qty
* Average Monthly Consumption (AMC), Months of Stock (MOS)
* Workflow state
* Qualitative information
 |  | Mandatory |  |
| G-I-19 | Import—Country Supply Plans (Expressed Demand)  | Many countries use PipeLine software to create detailed national-level supply plans for each family planning product based on their current inventory, their actual and forecasted consumption, their minimum and maximum inventory control levels, pending orders/shipments, etc. The database files are in Microsoft Access. The PipeLine software provides users with reports detailing the date, quantity, and cost of shipments needed to maintain national inventory levels between the established minimum and maximum levels, as well as information on the status of shipments and funding/procuring sources. Some countries do the same type of planning in Excel instead of using PipeLine. These Microsoft Access and Excel files are the sources for the countries’ expressed demand. The narrative and description of the methodology used to arrive at the final forecast and supply plans are typically separate Word or PDF files. The solution will need to associate the files with a supply plan update workflow record and provide a method for importing the structured data elements from PipeLine or Excel for expected demand.Historical data also can be pulled from the country supply plans when they are first uploaded into the system to populate historical information on inventory, consumption, and orders received from procurers other than those reporting to GFPVAN. Data Types:* Narrative/methodology
* Country
* Program
* Product
* Quantity of each shipment
* Date each shipment needs to arrive at the central medical store
* Unit cost of each product
* Cost of each shipment without freight
* Total cost of each shipment including freight
* Suppliers and funding sources associated with each shipment
* Actual consumption
* Forecast consumption
* National level inventory (or equivalent)
* Min/max inventory levels
 |  | Mandatory |  |
| G-I-20 | Import—Country Office Supply Plan Requests  | Countries use PPT for order requests to UNFPA and to indicate their intention to procure via UNFPA using non-centralized funding. The requests in PPT are evaluated against country supply plans and orders from other donors/procurers to evaluate if the UNFPA requests match expressed demand. Recommendations are made to UNFPA to increase/adjust orders to reduce gaps or more efficiently use limited resources before funding is approved and the requests turn into firm orders. The solution will need to provide a method for importing the structured data elements from PPT for UNFPA requests to evaluate them against the expressed demand from the country.Data Types:* Country
* Recipient (program)
* Product
* Qty
* Date the quantity needs to arrive at the central medical store
* Unit cost of each product
* Total cost of each request
* Funding source within UNFPA
 |  | Mandatory |  |

Note: ASN=Advanced Shipment Notice; CDP=country data provider; CTA=control tower administrator; CTDA=control tower data analyst; GFPVAN=Global Family Planning Visibility and Analytics Network; GHSC-PSM=Global Health Supply Chain Program–Procurement and Supply Management; GRN=Goods Received Notice; PPMR=Procurement Planning and Monitoring Report; PPT=Procurement Planning Tool; RHI=Reproductive Rights Interchange; UNFPA=United Nations Population Fund; USAID=United States Agency for International Development.

#  Functional Requirements

|  |  |
| --- | --- |
|  | Describe your solution’s core capabilities and what is needed to produce that capability:* For each requirement, provide your response/notes in the response column, following the table format.
* For each requirement, indicate if your solution will meet that requirement out of the box (O), can meet the requirement with configuration (C), or will require development (D) to meet the requirement. Put the appropriate O, C or D in the column labeled ‘O/C/D’.

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## Order & Shipment Tracking

### Tracking – Confirmed Orders

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| # | Title | Description | Response / Comments | Priority | O/C/D |
| F-OT-01 | Track Confirmed Orders | Using the integration defined in the Interoperability section, confirmed orders are visible in the system.  |  | Mandatory |  |
| F-OT-02 | Manual Override of Confirmed Orders | Updates to confirmed orders should come through the host organizations in their data feeds. There may be instances where the system will need to support a manual override of an order as inactive. |  | High |  |
| F-OT-03 | Order Point of Contact | If the source system provides order point-of-contact information, then the system will associate and display with the order. |  | Low |  |
| F-OT-04 | Order source & destination | The system will track order source and order destination/recipient. Reporting and searching may be filtered by source or destination. |  | Mandatory |  |

Note: CDP=country data provider; CTDA=control tower data analyst; CTP= control tower planner.

### Manufacturer Connection

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| # | Title | Description | Response / Comments | Priority | O/C/D |
| F-OM-01 | Track Manufacturer Supplied Data | Using the integration defined in the Interoperability section, confirmed order updates that the manufacture is responsible for are visible in the system.  |  | Mandatory |  |
| F-OM-02 | Populate Goods Available Date  | Using the integration defined in the Interoperability section, manufacturers will have the ability to update the GAD per purchase order in an automated fashion. Other dates may be used instead or in addition to GAD. Examples of this may be estimated ship date. |  | Mandatory  |  |
| F-OM-03 | Populate Batch ID | Using the integration defined in the Interoperability section, manufacturers will have the ability to update the Batch ID per GAD and expiration date associated with each batch. |  | Medium |  |

Note: CDP=country data provider; CTDA=control tower data analyst; CTPM=control tower planning manager; CTP= control tower planner; GAD=goods available date.

### Tracking - Shipping

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| # | Title | Description | Response / Comments | Priority | O/C/D |
| F-OS-01 | Track Freight Forwarder Supplied Data | Using the integration defined in the Interoperability section, freight forwarders will have the ability to post ASN messages per purchase order in an automated fashion. These messages will be posted to one of the core milestones: dispatch advice, accept shipment, hand over shipment, reconcile shipment with dispatch advice. |  | Mandatory |  |
| F-OS-02 | Alert on ASN / GRN | Users can subscribe to alerts when an ASN/GRN is updated. |  | High |  |

Note: ASN=Advanced Shipment Notice; CDP=country data provider; CTDA=control tower data analyst; CTPM=control tower planning manager; CTP= control tower planner; GRN= Goods Received Notice.

## Supply & Demand Planning

### Inventory Reporting

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| # | Title | Description | Response / Comments | Priority | O/C/D |
| F-IR-01 | Inventory Recording | Using the integration defined in the Interoperability section, CDPs will have the ability to easily report inventory by product/program/location into the system. This Inventory report will be able to handle multiple levels of aggregation (Country-wide / CMS / CMS + subnational)The system will allow the user to add qualitative notes to be associated with the Inventory update. |  | Mandatory |  |
| F-IR-02 | Inventory Updating Manually | Will have a user interface that will allow manual input/update of Inventory data. |  | Mandatory |  |
| F-IR-03 | PPMR Inventory Stock Reporting | Using the integration defined in the Interoperability section, the system will load on a regularly scheduled update of the non-pilot PPMR stock statuses that have been reported. These records will be read-only until the source country converts to the GFPVAN. |  | Mandatory |  |

Note: CDP=country data provider; CMS=central medical store; CTDA=control tower data analyst; CTPM=control tower planning manager; CTP= control tower planner; GFPVAN=Global Family Planning Visibility and Analytics Network; PPMR=Procurement Planning and Monitoring Report.

### Demand Aggregation

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| # | Title | Description | Response / Comments | Priority | O/C/D |
| F-DA-01 | Country Business Rules | Each country will be able to specify its business rules for calculating AMC and MOS and setting the min/max levels. When sufficient historical data are in place, the system will be able to suggest AMC and min/max levels. |  | Mandatory |  |
| F-DA-02 | Country Supply Plan Update—Methodology | CDPs can submit a supply plan update either directly into the system or by emailing the files to the CTDA, who does it on their behalf. This starts the workflow: * The supply plan update will store the associated files/commentary for the methodology or store with a link to a secure location for the files.

Sample Supply Plan Update Workflow states:* Open Update
* Associate files
* Validate methodology
* Pass workflow to the Demand Optimization
 |  | Mandatory |  |
| F-DA-03 | Country Supply Plan Update—Data Import | CDPs can either send in or upload directly their supply plan requests. Optionally, these may be imported from PipeLine (Microsoft Access) or via Excel to the system.Users perform basic data quality validation to map to product master / vendor master records.Note, CTDAs should be able to do this on behalf of a CDP for non-pilot countries. |  | Mandatory |  |

Note: AMC=average monthly consumption; CDP=country data provider; CTDA=control tower data analyst; CTP=control tower planner; MOS=months of stock.

### Demand Optimization

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| # | Title | Description | Response / Comments | Priority | O/C/D |
| F-DO-01 | Automatic Data Analysis | The system presents the CTP with potential stock imbalances based on the business rules that would be, approximately:* Amount of time since last supply plan update threshold.
* Amount of time since last Inventory update threshold.
* Length of time the supply plan is to cover.
* Question of whether the forecasted schedule and the forecasted inventory exceed min/max threshold or go below minimum thresholds.
* Question of whether the plan’s confirmed orders align with the GFPVAN confirmed orders.
 |  | Mandatory |  |
| F-DO-02 | Supply Plan Tracking | The system will have a field that may be associated with a supply plan update to indicate its relative level of maturity. This flag will be manually set by the CTP. |  | Medium |  |
| F-DO-03 | Optimization Scenarios | The CTP performs analysis on the optimization plan and reviews the global demand plan for order adjustments and balancing.Scenarios on options are performed to develop the recommendation. A scenario is capable of:* Visualizing the projected inventory accounting for confirmed orders for at least 15 months into the future.
* Visualizing the projected inventory accounting for both confirmed orders and any unmet expressed demand for at least 15 months into the future.
* Allowing the user to change assumptions on order dates, units, and consumption patterns.
* Logging/associating comments.
* Being saved/shared through the system with other users without being committed to the final plan.
 |  | Mandatory |  |
| F-DO-04 | Compare / Contrast Scenarios | The system will have the ability to compare/contrast two scenarios side by side. Examples of this would be:* Scenario 1 – current plan, no changes.
* Scenario 2 – limited intervention.
* Scenario 3 – full intervention.
 |  | Medium |  |

Note: CDP=country data provider; CTDA=control tower data analyst; CTP=control tower planner; GFPVAN=Global Family Planning Visibility and Analytics Network.

### Supply Optimization

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| # | Title | Description | Response / Comments | Priority | O/C/D |
| F-SO-01 | Supply Optimization Recommendation | The recommendation is prepared by the CTP. The CTP can log/associate the scenario parameters used for the recommendation to the originating request.Recommendations may include reprioritizing production and shipment scheduling, reprioritizing funding to fill gaps, modifying existing orders, creating new orders, etc.The scenarios used for the recommendation are linked in such a way as to see what data and assumptions were a part of the recommendation. |  | Mandatory |  |
| F-SO-02 | Modified Request Approval | If the proposed recommendation is different than the supply plan update from the CDP, the CTP will log the proposed modification, and the system will alert the CDP that a modification to the request was made. The alert will give the CDP the option to approve the recommendation, delay the decision, or reject with comment. |  | High |  |

Note: CDP=country data provider; CTP=control tower planner.

### Supply Response

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| # | Title | Description | Response / Comments | Priority | O/C/D |
| F-SR-01 | Supply Response Logging | The CTP will record the decision taken and close the request. |  | Mandatory |  |
| F-SR-02 | Supply Response Notification | The CDP is notified of the status change in the request. |  | Mandatory |  |
| F-SR-03 | Confirmed/Modified Order Update Link to Request /Recommendation | The mandatory requirement “F-0T-01 – Track Confirmed Orders” will enable users to see the confirmed/modified/cancelled orders that are created or updated in the procurers’ system separately, and these changes will be automatically reflected in the Orders & Transportation Tracking module of this solution.The requirement for F-SR-03 is that the users should be able to associate/link a recommendation with a confirmed order when it becomes available, which will enable the ability to track outcome metrics. |  | Medium |  |

Note: CDP=country data provider; CTDA=control tower data analyst; CTPM=control tower planning manager; CTP=control tower planner.

### Exception Management

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| # | Title | Description | Response / Comments | Priority | O/C/D |
| F-EM-01 | Exception Management Workflow | CDPs, CTDAs and CTPs will have the ability to open an exception request through the system. Exception requests may be opened at any time. The product exception request (i.e., new order, cancel order, expedite/postpone/transfer order, etc.) will start the workflow. Sample Exception Change Request Workflow states:* Open request
* Review data
* Validate methodology
* Made recommendation with assigned action/responsibility
* Conduct follow-up
* Receive feedback
* Close

Approval variation:* If the product change request was raised by someone other than the CDP, then the CDP must approve the request to move forward, similar to the process outlined in F-SO-02.
 |  | Mandatory |  |
| F-EM-02 | Exception Management Logging | The system will log each workflow transition (i.e., data review complete, etc.). The users of the system may associate notes, commentary, or documents with the request.  |  | Mandatory |  |
| F-EM-03 | Exception Management Notification | The CDP, CTDA, CTP are notified of the status change of their exception request. |  | High |  |
| F-EM-04 | Exception Management Confirmed/Modified Order Update | Confirmed/modified orders will be created or updated in the procurers’ system separately, and these changes will be automatically reflected in the Orders & Shipment Tracking module of the solution. |  | Mandatory |  |

Note: CDP=country data provider; CTDA=control tower data analyst; CTPM=control tower planning manager; CTP=control tower planner.

## Functional Administration

### Administration

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| # | Title | Description | Response / Comments | Priority | O/C/D |
| F-AD-01 | User Roles | A single user may be a member of multiple roles.  |  | Mandatory |  |
| F-AD-02 | Security Access Control Lists | Security and Access Control will be role driven. Administrators will be able to manage roles and their resources through a user interface.  |  | Mandatory |  |
| F-AD-03 | Security Granularity | Access will be granular and can be assigned by organization (country, manufacturer, donor, program, etc.) and product. |  | Mandatory |  |
| F-AD-04 | Manage Reference and Master Data | CTAs should be able to add, edit, and make inactive reference datasets, such as location, product master, and vendor master. |  | Mandatory |  |
| F-AD-05 | Quarterly Access Report | The system will have the ability to produce a report for given data owners (country, manufacturer, procurer) that will show who has access to their data by organization and what changes to that access have occurred in the past quarter. |  | High |  |
| F-AD-06 | Data Dictionary | The system will have a data dictionary / help page that is easily accessible for users. This data dictionary will include the systems definition of milestone dates, such as goods available date, desired delivery date, and estimated delivery date. These definitions will be able to be updated by the CTA. |  | Medium |  |

### KPI tracking / reporting

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| --- | --- | --- | --- | --- | --- |
| # | Title | Description | Response / Comments | Priority | O/C/D |
| F-KP-01 | Configure KPIs and Metrics | The system will support the ability to configure KPIs for both outcome tracking and in-process metrics. The configuration of these must be through the administrative interface.Example would be:* # Countries that are outside of the min/max thresholds.
* # Times a country has fallen below minimum inventory thresholds.
* # Days from supply plan update to analysis / supply risk determination.
 |  | High |  |
| F-KP-O2 | Calculate Logic for KPIs and Metrics | KPIs will support the ability to use calculation logic.Example would be:* Average monthly consumption \* order lead time + safety stock
 |  | High |  |
| F-KP-03 | Set Thresholds on KPIs and Metrics | KPIs will support the ability to have thresholds applied to them.Example would be:* Alerts can be triggered if threshold exceeded.
 |  | Medium |  |

### Visualization / Reporting

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| # | Title | Description | Response / Comments | Priority | O/C/D |
| F-VR-01 | Security | All dashboards, reports, and exports will respect security assignments. |  | Mandatory |  |
| F-VR-02 | Export | All reports will be able to be exported with support for multiple formats:* CSV
* XLSX
* TXT
* PDF
* DOC
 |  | Mandatory |  |
| F-VR-03 | Configurable | Reports should be configurable by the user of the system with the ability to add/remove columns and filterable on common conditions, such as country, product, program, donor, procurer. |  | Mandatory |  |
| F-VR-04 | Change Report | The system will have the ability to report on what has changed in the time between two dates and be filterable by product, country, recipient for requests, supply plan updates, inventory reporting, confirmed orders, and shipment tracking. |  | High |  |
| F-VF-05 | Report Development | The appendix section 11.1 describes a list of illustrative reports that are important for starting the system. Describe your anticipated level of effort and approach to developing these reports and the level of skill required by a report developer to create them.NOTE: Appendix section 11.1 is intended only as illustrative, and specifications as well as the list itself of reports may be modified in implementation.   |  | Mandatory |  |

# Technical Requirements

|  |  |
| --- | --- |
|  | Describe your solution’s core capabilities and what is needed to produce that capability:* For each requirement, provide your response/notes in the response column, following the table format.
* For each requirement, indicate if your solution will meet that requirement out of the box (O), can meet the requirement with configuration (C), or will require development (D) to meet the requirement. Put the appropriate O, C or D in the column labeled ‘O/C/D’.

O = “Out of box” is something that comes with the base solution at the time of the project kick-off. It is considered core functionality.C = “Configurable” is something that comes with the base solution at the time of the project kick-off. It requires some specialized level of effort to enable the functionality. Configuration is largely something capable of being done through a user interface and requires knowledge of the solution. It requires a moderate level of subject-matter knowledge and may include light changes to such things as configuration files.D = “Development effort required” is something that needs more work to make the functionality available either at the project kick-off or at a time later in the project implementation plan. It is considered development regardless of whether it is being done for the core product or via a plugin/add-on. |

## Authentication / Authorization / Audit / Security

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| --- | --- | --- | --- | --- | --- |
| # | Title | Description | Response / Comments | Priority | O/C/D |
| T-AA-01 | Audit | System will maintain an audit log of activities for changes to security settings, changes to reference data, and changes to models that show both user and date; audit will include transactional as well as reference/configuration changes and include the account and date/timestamp associated with the activity. |  | Mandatory |  |
| T-AA-02 | Authentication | Both service and user accounts will be assigned by the CTA. Accounts will be tied to individuals (not shared accounts) and be able to be enabled/disabled. Passwords will be encrypted both in-transit and at rest. Passwords will expire and reset per a configurable number of days. |  | Mandatory |  |
| T-AA-03 | Authorization | System should be able to support roles/groups for fine-grained authorization of different activities; changes to roles should be made via user interface from the admin experience. |  | High |  |
| T-AA-04 | Third-Party Security Audit | System will undergo regular third-party application security audits, and partner will communicate results and confirm remediation as needed to ensure: * Protection against unauthorized access.
* Protection against access by other tenants collocated in the same system.
* Mitigation of external threats, such as Distributed Denial of Service (DDoS) defense.
* Malware detection and remediation.
* Code hardening and auditing meet enterprise security best practices.

Additionally, the RHSC should have the right to audit the SaaS vendor’s operations and access log information as related to meeting security and privacy requirements. |  | Mandatory |  |

Note: SaaS=Software as a Service.

## Technical Stack

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| # | Title | Description | Response / Comments | Priority | O/C/D |
| T-TS-01 | Tech Stack Model | Using the template structure provided, describe your solution’s technical stack. Highlight any areas that would require additional license fees for either scaling up or paying on an annual basis.  |  | Mandatory | NA |
| T-TS-02 | Language Localization | Describe the process of language localization for labels, online help, and training materials should all be able to be localized and configured for another language, such as French.  |  | Medium |  |
| T-TS-03 | 508 Compliance | Describe your solutions ability to meet 508 Compliance. |  | Low |  |

## SaaS as a Solution

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| # | Title | Description | Response / Comments | Priority | O/C/D |
| T-SA-01 | Tenancy | Tenancy describes the hosting model for the solution. The solution should be:* Multitenant architecture.
* Where the application hosted.
* Originally designed to be SaaS.
* Workable with Content Delivery Networks for speed optimization globally.
 |  | High |  |
| T-SA-02 | Tenancy Security | The system will be able to demonstrate security and separation from other clients on the system.Describe the methodology used and what method of assurance activity is performed to ensure safeguards are in place. |  | Mandatory |  |
| T-SA-03 | Reliability | **Fault Tolerant:** The solution is expected to be fault tolerant by design and implementation.* The application by design should have no single point of failure.
* The application should isolate and contain faults and not allow other parts of the application to be adversely affected.
* Documentation (reference, design, architecture) should be provided to demonstrate that the solution is fault tolerant.
 |  | Mandatory |  |
| T-SA-04 | Recoverability | Solution will have a secure, disaster-tolerant data center(s) in a separate location from the production system, enabling data replication with backup power, multiple internet connection points, 24-hour staffing, and sufficient physical security management.There needs to be a Disaster Recovery Plan on how to recover any data loss if an event occurs. The disaster recovery plan will need to document specifically the plan on how to mitigate the issue if an unfortunate event occurs, such as having back-up servers with data that is less than one week old.  |  | High |  |
| T-SA-05 | Release Management—Updates & Patches | Describe the methodology for distributing updates to Software. * What is the frequency of releases?
* What is the role of the client in deciding when these are deployed?
* Updates to the SaaS features will not unduly disrupt existing tenants or reduce functionality.
 |  | High |  |
| T-SA-06 | Release Management—Testing | Describe the typical testing methodology needed by the client during the release cycle.* How are test scripts developed?
* How much test automation is used?
 |  | Medium |  |
| T-SA-07 | Availability | The solution is required to be highly available. The system should have high Mean Time Between Failures and low Mean Time to Recovery.* Regular reporting on the monthly or annual availability performance of the system.
* Application availability > 99.9%.
* Data availability > 99.9%.
 |  | High |  |

## Scalability & Flexibility

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| # | Title | Description | Response / Comment | Priority | O/C/D |
| T-SF-01 | Extensibility | The application object model / extensibility must have a method to allow for customizations and functionality to be developed without modifying core code that would prevent a future upgrade from happening. Explain the extent to which the client will have this ability. All users should receive the benefit of core technology upgrades that may originate from other tenant improvement requests. Non-custom configurations should have minimal validation test requirements or adverse impacts from core system improvement upgrades.Custom configuration impacts from improvement upgrades should be planned well enough in advance to secure necessary test review and approval for funding as needed. |  | High |  |
| T-SF-02 | API | System must have an API that respects the security model. Service accounts are to be created and assigned rights that are trackable in the same manner as regular accounts. |  | High |  |
| T-SF-03 | API | The system must have documentation on the API used at the time of system implementation. Please provide a link if already available. |  | Low |  |
| T-SF-04 | API | Countries either currently have or will eventually have supply chain reporting dashboards. While country visibility and analytics (VAN) users will be able to directly log in to the VAN dashboard to access specific information, it will also be equally important they also get to see key information (e.g., alerts) on their local country supply chain dashboard. The system must have the ability to automatically export data in either a push (scheduled job) or a pull (API call) method. Countries will need the ability to extract data at a regular interval so that they may integrate reporting for their leadership.  |  | Medium |  |
| T-SF-05 | API | The system should be shown to have a stable codebase with proven usage (deployed with multiple clients for at least 18 months). |  | Medium |  |
| T-SF-06 | Mobile | Given that most users in African countries will be accessing the GFPVAN potentially from a mobile device, describe what level of mobile support the solution has. The primary use case for this would be dashboard and report visibility.  |  | Low |  |
| T-SF-07 | Performance | The system will have a method for tracking its performance and response times that can be trended over time and that is accessible to the CTA. Down time should be defined and agreed upon in the service-level agreement (SLA). Issue response should have predefined severity levels that are acceptable to the users, with expectations around mean time to respond and mean time to repair. A performance escalation path should map to the overall governance approach.  |  | High |  |

# Appendix

|  |  |
| --- | --- |
|  | List and attach any supporting documentation. |