

Ministry of Labour  
**SOCIAL SECURITY BOARD**



**Terms of Reference (TOR)**

**Appendix (E) - Description of the Deliverables**

FOR THE DEVELOPMENT AND IMPLEMENTATION OF

**Software Development Deliverables**

For the

**SOCIAL SECURITY BOARD INFORMATION SYSTEM (SSB-IS)**

**Nay Pyi Taw, Myanmar**

**March, 2023**

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## 0 Introduction

### 0.1 Context

This document describes the expected deliverables that must be produced by the supplier and approved by SSB.

The supplier must indicate **the cost for each deliverable in the pricing section** of this request for proposals. The supplier should consider the **cost and timeline of getting approval of the deliverable** and its internal cost for project management.

### 0.2 General delivery procedure

All deliverables will have to be identified with a standard approval form that indicates clearly: the **name** of the deliverable, the **name of the supplier's team leader** responsible for the deliverable, the **expected delivery date**, the **latest finish date** of the planned deliverable, the **actual date** of delivery, the **version number** of the deliverable, and the **SSB person responsible** for its approval. (latest finish date: The latest possible date a scheduled activity can be completed without delaying the rest of the project).

All deliverables consisting of documents must be delivered in **an editable electronic format** such as MS-Word, MS-Excel, MS-PowerPoint, Visio or MS-Project compatible with Windows 10.

All documents produced using other specific documentation tools will also be accepted, but the supplier must provide the proper software licensing rights to SSB for a period of **at least 6 years**.

The sections that follow describe each expected deliverable.

As explained in the TOR, most of the system component deliverables need design documentation that must be approved before any deployment. The design documentation is part of the deliverable.

All SSB staff **training must be done on site** in NayPyiTaw (Covid-19 procedures may apply).

## 1 Project Organization Manual

The project organisation manual is document that presents the supplier's project management chart, followed by the roles and responsibilities of each supplier team member. Any specific project management procedures that the supplier wants to share with SSB may be documented as well. The project organisation manual must include a detailed plan of the supplier's efforts and deliverables, along with the value of each deliverable as stated in the supplier's proposal.

This deliverable includes all project management software that will be used by the supplier. The supplier must provide **10 licences for the same software products for the sole use of SSB project staff**. Specific **training on the project management software** should be provided to the SSB project management team.

Documentation format: Word, project planning software, electronic spreadsheet or any appropriate tools, as long as the supplier provides the SSB project manager and his/her support team access to the electronic format with the tools necessary to read it.

Due date: One month after contract signature.

Approvals: SSB IS Project Manager and Steering Committee Director.

Remark: The project plan should be kept **up to date** for the duration of the project.

## 2 Project Management Reports

There are **two types of reports** to be produced: The **Weekly** project management report and the **Monthly** project monitoring report.

The Weekly project management report presents the following information to the SSB IS Project Manager:

- Deliverables completed and approval status in the last week,
- Deliverables planned for the next week,
- Any outstanding points or problems that occurred in the past week,
- A list of pending decisions regarding deliverables, approvals, outstanding points or problems.

Documentation format: Word, any other pertinent document format.

Due date: Once per week after project start until the end of the project (final delivery).

Approvals: SSB Project Manager.

Remark: Payments for these deliverables are made monthly.

The Monthly project monitoring report presents the following information to both the Project Steering Committee Director and the SSB IS Project Manager:

- Complete list of deliverables with current progress status, approval dates, pending decisions,
- Updated plan (list of all deliverables in the form of a Gantt chart),
- Deliverables completed and approval status in the last month,
- Deliverables planned for the next month,
- Any outstanding points or problems that occurred in the past week,
- A list of pending decisions regarding deliverables, approvals, outstanding points or problems.

Documentation format: Word, any other pertinent document format.

Due date: Once per month after project start until the end of the project (final delivery)

Approvals: SSB Project Manager and Steering Committee Director

Remark: Payments for these deliverables are made monthly.

### 3 System Design (system architecture)

The System Design (system architecture) document provides a **comprehensive view of the components**.

It should not describe all the parts in detail but only identify all the components as well as the development and deployment principles that will guide the production of all the deliverables. The emphasis should be placed on the application to be developed.

The technical dimension of the architecture should be presented at a **high level**, in such a way as to be understandable by the users and still be pertinent for technical documentation purposes.

Documentation format: PowerPoint, Word, MS-Visio or any PDF format file resulting from specific modelling tools. The electronic document delivered should make it easy for the SSB IT team to update it.

Due date: May begin right after the contract signature date. It should be finished as soon as possible after the beginning of the project.

Approvals: SSB User representatives, SSB IS Project Manager and Steering Committee Director.

The next three sub-sections provide more detail about what is expected of the **System Design (system architecture)** deliverable.

### 4 System Design - data model

A data model must be produced using an entity-relationship modelling technique. The model should cover all information and data needed by SSB's core business process. The supplier's data-modeller specialist should work with the SSB IT team's data-modeller analyst. Producing the data model will require many workshops across the different SSB departments. The SSB IT team and SSB user representative team will support the supplier in this work.

The end result is a document that includes a graphical representation of the data. The entity-relationship formalism is appropriate for SSB. It must also include a data dictionary with a standardised definition of data descriptors that will be used.

### 5 System Design - business process model

A business process model must be produced, covering all SSB core business processes. The supplier's business process analyst team should work with the SSB IT team's business process analyst. Producing the business process model will require many workshops across the different SSB departments. The SSB IT team and SSB user representative team will support the supplier in this work.

The end result is a document that includes a simple graphical representation of each core business process.

Business rules should be described at a level of detail sufficient to help the developer and programmer build the application. The role of the system user should be specified. Information required for each process should be highlighted or identified in the data model.

The supplier is free to use any tool or methodology. The default modelling tool is MS-Visio, which will be supplied by SSB.

## **6 System Design – high-level technical and software infrastructure documentation**

The software Infrastructure documentation should be produced in order to explain, at a high level, all components such as: **network configuration, security features, processing and storage servers, all software installed, redundancy mechanism and backup solution.**

The software infrastructure documentation must also include software layers, programme naming and versioning conventions (set of rules for choosing the character sequence to be used for identifiers which denote variables, types, functions, and other entities in source code and documentation).

## **7 System Design - services and core programme structure**

Software programme structure (or code structure) documentation must be produced to provide an overview of the main programmes. This could be done by listing services (programmes that serve as services, purpose of service object). Also, the use of the specific structure, function, operator and .NET framework service should be documented. A graphical model should be produced to provide a quick overview of all the software components developed.

## **8 System Design – workflow framework**

The supplier must document how it will automate workflows. A workflow engine can be developed by using MS-Exchange capability. The design document must identify how workflows will be managed, how they will interact with the event processor, and how email will be use or not to support the workflows. One workflow example: the system sends an email to a specific deputy director requesting final acceptance of a claim with a time limit. If the director has not indicated his/her decision in the system, the event processor will then resend an email to both the requested deputy director and the supervising department director.

## **9 Database Rules, Structure and Pattern for Initial Implementation, Evolution and Maintenance**

Following the creation of the required database structure, the supplier must produce a document (guide) providing an overview of the database rules and the structure pattern for the initial implementation. The documentation should be updated as the project progresses. The supplier may refer to the MS-SQL documentation tools and tables.

The documentation (or guide) may be supported by any software or tools known to the supplier.

## **10 Development and Production Environment and Version Migration Infrastructure**

Software environment management and version migration control constitute a set of procedures and tools provided by the supplier. This deliverable covers the installation of the required components, design of the management and migration process, and definition of the required code (programme) naming conventions in order to support version control and migration among the five different environments presented in the TOR.

Each environment must be segregated from all the others in order to increase security. This means that no direct connections are allowed between the environments.

See the section “Development and Production Environment Infrastructure” for more details about this deliverable.

## **11 Document Imaging Process Integration**

There is a need to scan paper documents, mainly identification documents for the registration process and the claims process. This will be an on-demand scanning process, not a batch processing scanning service. The supplier must design and document the processes and the document image storage and retrieval service. This service will be used by multiple processes (such as registration and claims). The imaging process service should use Microsoft functions to handle, store and retrieve the documents. The image will come from scanners operated in the Township offices and at SSB’s headquarters. The design must include the process used to drive the scanners and document indexing, which should be semi-automated indexing.

The scanning software should be provided and integrated with the desktop or laptop dedicated to scanning. Following is the detailed specification for the laptop computer to be linked to the scanner:

- Laptop with UPS
- Processor: Intel Core i5 and above



- Memory: 4 GB internal fast memory
- HDD: 1 TB disk storage
- Graphic (VGA): 1 GB
- Display: 15 inches and above
- Resolution: (2560 x 1440)
- Other: keyboard and mouse, Myanmar font must be configured
- O/S: Microsoft installed Windows 10 license
- Warranty: parts and services warranty (3 years + renewable yearly)
- USB Port (3.0/2.0).

The scanning process must be integrated into the SSB-IS via a **generic (common) service**. All scanned documents are stored with relation to a worker or beneficiary for which there is an ongoing process such as a claim, registration or other process.

Two types of scanners will be used:

- Automatic feed scanner
  - This scanner will be used for most documents composed of a single sheet of paper of variable standard size.
- Overhead document scanner
  - This scanner will be used for most documents that cannot be scanned using the automatic feed scanner.

Following are the main sub-deliverables to be produced:

- Process design
- Technical integration design of the scanner in SSB-IS technical environment (network, datacentre servers)
- Database setting to store documents efficiently (storage and retrieval process must be efficient)
- Application code development to integrate the use of the scanner into all relevant processes
- Physical and technical scanner integration
- Testing
- Acceptance testing in the development environment.

## 12 Automatic Feed Scanner

Here is the detailed specification for the automatic feed scanner

<b>Automatic document feed duplex scanner</b>	
<b>Characteristics</b>	<b>Specifications</b>
Scanner	Duplex scanner (double-sided scan)
Image sensor	Colour CIS (Contact Image Sensor) x 2 (front/back)
Light source	3 Colour LED (Red/Green/Blue)
Optical resolution	600 x 600 dots per inch (dpi)
Scanning Speed (A4 portrait)	
Auto mode	Simplex or Duplex, 25 pages per minute (ppm)
Normal mode	Colour & Grayscale 150 dpi, Monochrome 300 dpi, Simplex/Duplex, 25 ppm
Better mode	Colour & Grayscale 200 dpi, Monochrome 400 dpi, Simplex/Duplex, 25 ppm
Best mode	Colour & Grayscale 300 dpi, Monochrome 600 dpi, Simplex/Duplex, 25 ppm
Excellent mode (3)	Colour & Grayscale 600 dpi, Monochrome 1200 dpi, Simplex/Duplex, 7 ppm
Supported Document Size	A4, A5, A6, B5, B6, Business Card, Post Card, Letter, Legal and Custom Size. Max: 216 mm X 360 mm (8.5 in. X 14.17 in.), Min: 50.8 mm X 50.8 mm (2 in. X 2 in.). Automatically recognizes document size.
Long paper scanning (3)(4)	863mm (34 in.)
Multi-feed detection	Must have a multi-feed detection sensor
Paper weight (thickness)	40 g/m2 to 209 g/m2 (11 lb. to 56 lb.)
Interface	USB 3.0 (USB 2.0/1.1 compatible)
Operating temperature	5 °C to 35 °C (41 °F to 95 °F)
Environment relative humidity	20% to 80% (non-condensing)
Driver and software	Windows 10 compatible
Power requirement	AC adapter AC 100 V to 240 V, 50/60 Hz
UPS	One-hour battery capacity + AC Adapter AC 100 V to 240 V, 50/60 Hz

### 13 Overhead Scanner

Here is the detailed specification for the overhead scanner

<b>Overhead Scanner</b>	
<b>Characteristics</b>	<b>Specifications</b>
Scanner type	Overhead system, simplex scanning
Scanning modes	Colour, Grayscale, Monochrome, Automatic (colour, grayscale, monochrome detection)
Distortion correction	Automatically correct distortion caused by curve of an opened book or magazine.
Image sensor	Lens reduction optics/colour CCD x 1
Light source	(White LED + lens illumination) x 2
Optical resolution	Horizontal scanning: 285 to 218 dpi, Vertical scanning: 283 to 152 dpi
Scanning speed	
Auto mode (3)	"Better mode" or "Best mode": 3 seconds/page
Normal mode	Colour/Grayscale: 150 dpi, Monochrome: 300 dpi 3 seconds/page

Better mode	Colour/Grayscale: 200 dpi, Monochrome: 400 dpi 3 seconds/page
Best mode	Colour/Grayscale: 300 dpi, Monochrome: 600 dpi 3 seconds/page
Excellent mode	Colour/Grayscale: 600 dpi, Monochrome: 1,200 dpi 3 seconds/page
Document Size	Automatically recognizes document size, A3 (landscape), A4 (landscape), A5 (landscape) A6 (landscape), B4 (landscape), B5 (landscape), B6 (landscape), Post (landscape), Letter, Legal (landscape) and Customized size (Max: 432 x 300 mm (17.0 x 11.8 in.), Min: 25.4 x 25.4mm (1 x 1 in.))
Interface	USB 2.0/USB 1.1 (connector B Type)
Image processing functions	Deskew by text on document, Auto paper size detection, Auto image rotation, Auto colour detection, Book image correction (8) Multiple document detection
Magnification in vertical scanning (length)	± 1.5%
Power requirement	AC 100 V to 240 V, 50 Hz/60 Hz
Operating environment	Temperature: 5 °C to 35 °C (41 °F to 95 °F) Relative humidity: 20 to 80% (Non-condensing)
Driver and software	Windows 10 compatible
Standards conformity	European Union General Product Safety Directive 2001/95/EU OR Underwriters Laboratories (UL)
UPS	One-hour battery capacity + AC Adapter AC 100 V to 240 V, 50/60 Hz

## 14 Security Control Policy Process - Development

SSB needs to control all desktops, laptops and all authorized devices connected to them (devices such as a scanner or card and fingerprint reader). The supplier will have to work with SSB IT staff to define the Windows security policy and implement it on the laptops across all SSB facilities. The policy should cover the following topics:

- Registration of all laptop IDs in the network infrastructure, with minimal information on the machine, date of installation, OS version.
- Security measures to be followed by the user.
- Definition of administrator rights and user rights.
- Updating of OS and Defender (regular updates and update procedure should be automated).
- Restrictions on computer use (the computer should be used only to do work for SSB).
- Access to authorized software/applications.
- Authorized device to be connected.
- As a rule, no document should be stored on a PC/laptop (or if a document is stored on the computer it must be stored in the datacentre).
- Internet access should be limited to work purposes only.

Following are the main sub-deliverables to be produced:

- Security control process and policy design
- Definition of Windows security and usage policy parameters
- Testing of parameters in the development environment
- Integration test
- Deployment of security control policy across all SSB facilities.

## **15 Access and Security Control Process - Development**

The supplier must deliver all the identification dialogues and security procedures needed to control access in the Web system, using the tools and functionality of the Microsoft environment and other products. The development of those components should not require much programming. The system user profiles mechanism should be designed and implemented so as to enable granular access control to different system functions. This should be done to enable operation in an efficient manner.

The supplier should also deliver all the identification dialogues and security procedures needed to control access in the mobile (Android and iOS) system using the tools and functionality of the mobile (Android and iOS) environment. This may require a mix of both the Android and iOS platforms and Microsoft platform. The system user profiles mechanism should be designed and implemented so as to enable granular access control to different system functions. This should be done to enable operation in an efficient manner. Following are the main sub-deliverables to be produced:

- User identification and authentication mechanism design
- Identification dialogue and common Web interface development
- Identification dialogue and common mobile interface development
- Access and security control administration mechanism
- Integration test
- Acceptance test

## **16 Common User Web Interface - Development**

The supplier must develop a common user Web interface using the tools and functionality of the Microsoft environment. This should be done in an efficient way to ensure reusability across all developed functions in the Web application. The common user interface should determine the graphical appearance, all Myanmar language issues, and defined standard navigation and validation procedures.

Following are the main sub-deliverables to be produced:

- Common user Web interface design

- Common user Web interface development
- Integration test
- User test.

## **17 Event Processor - Development**

The supplier must develop an event processor program. This should be done in an efficient way to ensure reusability across all developed functions in the system. TOR See section 5.2 “Event-driven Architecture” for more details. Following are the main sub-deliverables to be produced:

- Event processor design
- Event processor code development
- Testing
- Integration test
- Evolution and integrity control of code for the duration of the project.

This deliverable will evolve with the development of all business processes. The first version will be approved at the beginning of the project, but it is expected that this deliverable will be continuously adjusted.

THIS PARTICULAR DELIVERABLE WILL BE PAID FOR ONLY ONCE. NEVERTHELESS, IT SHOULD BE ADJUSTED AND REDELIVERED MANY TIMES, WITHOUT ADDITIONAL CHARGE, THROUGHOUT THE DEVELOPMENT PROCESS.

## **18 Insurance Standard Program Processor for Health and Social Care, Family Assistance, Employment Injury Benefits, Unemployment - Development**

The supplier must develop the core program (code developed using a programming language) that will enable an SSB internal super user to create or modify the insurance and/or social security programmes. The SSB super users must be involved. The programme processor should provide an easy way to add new programmes. In order to achieve this, SSB will streamline its insurance programme and other social security schemes.

This programme processor will also be involved in most business processes. It is a common routine, used by the event processor, which is used to validate the admissibility of a worker or a beneficiary to a particular programme. Following are the main sub-deliverables to be produced:

- Process design
- Application code development

- Testing
- Acceptance testing in the development environment.

## **19 Benefit Category Processor - Development**

The supplier must develop the core program (code developed using a programming language) that will enable an SSB internal super user to create or modify benefit categories for the insurance and/or social security programmes. The SSB super users must be involved. The category processor should provide an easy way to enrich existing programmes or new programmes.

In order to achieve this, SSB must not be required to administer complicated programmes or programme definitions involving unmanageable exceptions.

This benefit category processor will also be involved in many business processes. It is a common tool that is used to standardize the vocabulary in the system and facilitate data uploading. Following are the main sub-deliverables to be produced:

- Process design
- Application code development
- Testing
- Acceptance testing in the development environment

## **20 Database Security**

The database must be encrypted. One acceptable technique will be to hatch the database. Other Microsoft database features may also be used. The supplier should propose a solution and ensure it will be reliable and efficient.

## **21 Unique Identification Number for SSB-IS**

The supplier must develop a program to generate a unique SSB identification number (SSBN\_#) for each employer/worker. This number will never be deleted. It will be the link to all transactions created for a given worker, household member or beneficiary. Every person which interacts with SSB should have an SSN.

There is a need for 999 million numbers. SSB plans to cover the entire active population of Myanmar. Once someone dies, the number is not reused. A number is also required for massive testing purposes. Consequently, for these and other reasons, capacity is needed to generate a lot of unique numbers.

There should also be a unique Identification number for the employer.

It must also be considered that a household member may receive an ID card in the future (it is not the case now but it may happen).

## 22 Legacy Database Conversion and Loading (Data Migration)

The supplier must develop a program to load the legacy converted data into the new database so the registration records and contribution records can be uploaded into the new database. The SSB IT team will share (with the supplier) their preliminary work to convert the old database. A manual process should also be designed to help clean the data following processing by the conversion program. The worker's and employer's information file and the contribution records per employee will need to be loaded and connected.

For each worker already registered through the legacy system, the new SSB-IS must provide the new SSBN\_#. That will be the only reference number. Following are the main sub-deliverables to be produced:

- Loading process design
- Loading code development
- Testing and trial
- Acceptance testing in the integration test development environment
- Automated database loading
- New loaded database verification and problem remediation

## 23 Data Entry and Cleaning Service for Database Conversion – Registration/Contributions

The supplier must **provide and organise the work of human resources** to upload information on employer and employee/worker registrations and worker contributions from Data Entry and Cleaning database and old Excel spreadsheets into the new database. There are also contributions on paper documents. Some simple data entry functions should be developed to help upload the information from the two formats (Excel and paper-based) into the new database. The SSB IT team will share (with the supplier) their preliminary work. A manual process should also be designed to support this data entry task. An intermediate database may have to be used; the best strategy is up to the supplier to decide.

Following are the main sub-deliverables to be produced:

- Data entry and cleaning function design
- Data entry and cleaning function development
- Data entry and cleaning function deployment
- Data entry and cleaning service for Hard copy 400,000 (form#2 employee registration) and Excel Softcopy about 80,000, more than 10,000 (form#1 employer registration) and contribution Excel sheets (From 1/2022 To 1/2024)

- Provide Data Entry Operators for data entry process

## **24 SSB-IS Deployment Process**

Once the business processes have been developed and approved, the supplier proceeds with deployment. That means migrating the application to the production environment, uploading the operational database and providing access IDs and system passwords to all users. A pilot of the solution is conducted for **one or two months in some townships, medical clinics, a hospital and at SSB headquarters, Naypyitaw Territory, Yangon Division and Mandalay Division**. Once the pilot is approved, global deployment can proceed in other SSB Facilities. This includes deployment of the Helpdesk, which plays a significant role in the deployment process. Following are the main sub-deliverables to be produced:

- Detailed deployment plan (logistics, synchronisation with training and equipment deployment)
- Trial stage
- Complete deployment across all SSB sites/facilities
- Deployment monitoring
- Deployment approval.

## **25 Internal System Administration Process**

The supplier must develop the required functionality for the Web application to enable super users and SSB IT staff to modify or upload standard information and process triggers. The idea is to reduce the task of system maintenance and the burden on the SSB IT team making minor changes to system operational processes. Following are the main sub-deliverables to be produced:

- Process design (this concerns managing all the parameters in the system such as: automatic reports, updating the SSB calendar, adding or modifying new SSB sites and medical clinics)
- Application code development
- End user procedure documentation
- Testing
- Acceptance testing in the development environment.

## **26 Development methodology and modelling tool training for main users and IT team**

The development methodology and modelling technique training for main users and the IT team should provide knowledge and practical advice on the modelling techniques and methodology that the supplier will use to produce and document the System Design.



Up to 60 people may attend the training, which will be provided in SSB's head office facilities.

The supplier must also provide guidance as to which programming language to use in which situation (i.e., VB, Java, etc.). Any modelling tool is welcome. The default modelling tools are MS-Visio and PowerPoint (PPT). SSB supplies MS-Visio.

Following are the main sub-deliverables to be produced:

- Preparation of training material
- Training plan (what, when, for whom, logistics).
- Training session according to plan.

## **27 Development and Production Environment Training and Support**

The supplier must provide training and support for the Microsoft development environment. Following are the training and support subjects to be delivered:

Methodology and procedures for application development in the Microsoft environment - training for 60 people

- Specific training and development environment support on the Microsoft platform
- Programming technique training for the .NET IT team (up to 40 people)
- Methodology and procedures for application development in the Mobile (Android and iOS) environment training for IT team (up to 30 people)
- Specific training and development environment support on the Android platform
- Programming technique training for the Android IT team (up to 20 people)
- Continuous support to the IT team with respect to all development environments.

Following are the main sub-deliverables to be produced:

- Preparation of training material
- Training plan (what, when, for whom, logistics).
- Training session according to plan.

## **28 IT Staff Training for BI Platform**

The supplier must provide adequate training on the Microsoft platform to the specialized SSB IT staff that will be responsible for maintaining the system in the future. Following are the subjects of the training (this list should be adjusted to the actual proposal made by the supplier for the software platform):

- BI environment
- BI database environment administration
- ETL programming
- BI reporting tools for IT resources

- BI dashboard tools for IT resources
- BI reporting tools for IT super users
- BI dashboard tools for IT super users.

Following are the main sub-deliverables to be produced:

- Preparation of training material
- Training plan (what, when, for whom, logistics).
- Training session according to plan.

## **29 General System Training for SSB Users**

The supplier must provide training, in the central training room at SSB headquarters in NayPyiTaw, to all staff involved, on the general functions and processes of the solution according to the training strategy. Staff must be well prepared to operate paperless processes that depend on the information system to complete all tasks.

Following are the main sub-deliverables to be produced:

- Preparation of training material
- Training plan (what, when, for whom, logistics).
- Training session according to plan.

## **30 Train the Trainer for Employer Process**

The supplier must provide training, in the central training room at SSB headquarters in NayPyiTaw, to all staff identified as “internal trainers” on all components of the solution according to the training strategy.

Following are the main sub-deliverables to be produced:

- Preparation of training material
- Training plan (what, when, for whom, logistics).
- Training session according to plan.

## **31 SSB User Training for All Business Processes**

The supplier must provide training, in the central training room at SSB headquarters in NayPyiTaw, to all staff identified as “internal trainers” for all business process components of the solution according to the training strategy.

Following are the main sub-deliverables to be produced:

- Preparation of training material
- Training plan (what, when, for whom, logistics).

- Training session according to plan.

## **32 Employer Registration Process (Form # 1) - Web Development**

The supplier must develop the Web application to support the registration process of the employer (enterprise or organisation). The SSB-IS needs to be connected with the DICA (MyCO API) to verify the company registration number.

SSB will work with the supplier to design the new streamlined process. This will be based on the information from Form # 1 under the law.

The registration process includes the proof of identification according to the SSB 2012 Law and rules and administrative directives and the new streamlined process designed by SSB. The unique SSN for employers must be generated and assigned.

Any changes to an employer's status (cessation of operations, bankruptcy, address, type of operation, etc.) should be updated.

Following are the main sub-deliverables to be produced:

- Process design
- Application code development
- Testing
- Acceptance testing in the development environment
- Trial period in one Township, at headquarters and some employers.

## **33 Worker Registration Process (Form # 2) - Web Development**

The supplier must develop the Web application to support the worker registration process including voluntary registration. SSB will work with the supplier to design the new streamlined process. This will be based on the information from Form #2 under the law.

The employer will register workers directly in the system according to Form # 2. The registration process is done according to the SSB 2012 Law and rules and administrative directives and the new streamlined process designed by SSB.

This process includes the steps required to capture the picture and biometric information process and card printing process. Any change to employment status (work termination, layoff, sickness, etc.) should be updated. The worker should have access to his own file online. Following are the main sub-deliverables to be produced:

- Process design

- Picture and biometric capture integrated application design
- Application code development including picture and biometric integration
- Testing
- Acceptance testing in the development environment.

### **34 Employer Contribution Process (Form # 13) - Web Development**

The supplier must develop a Web application to support the employer contribution process. It will use the eMoney scheme. This will be based on the information from Form # 13 under the law. SSB will work with the supplier to design the new streamlined process.

The employer must have a Web interface to update the number of hours/days worked by each employee on a monthly basis. Based on salary, the system will calculate the contribution to be paid to SSB by the employer. The system validates and confirms the monthly contribution automatically. All information about the contribution, including details on the employee, is made available to all SSB offices.

**The employer will be responsible for making his payment through the eMoney provider. The eMoney process is covered by the “Electronic Money Management ” deliverables.**

The system will have to match the information received from the eMoney provider with the actual contribution calculation for a given month. This should be processed quickly after the end of the month. Any error or absence of contribution from the employer must be flagged to both the employer and the Township offices.

Following are the main sub-deliverables to be produced:

- Process design with eMoney
- Application code development
- eMoney solution development
- Testing
- Acceptance testing in the development environment.

### **35 Electronic Money Management for Contributions**

The supplier must develop an “eMoney management” process. SSB will have accounts with a number of banks that will receive electronic payments for the contributions by the supplier (across by CBM-Net and/or MPU Network). Every day (or monthly), the bank will send all the transactions. The SSB-IS system will receive the transaction files and upload them to the central database to be processed. The SSB-IS will check for errors and flag the transaction as accepted when everything is OK. The SSB-IS should have a

function to make corrections when there are errors with a double-entry mechanism. This function will need some specific reports to be developed with or without the BI environment.

Following are the main sub-deliverables to be produced:

- Process (contribution and benefits payment) design
- Application code development
- Testing
- Acceptance testing in the development environment.

### **36 Electronic Money Management for Payments**

The process must enable SSB to provide payments to employees. The supplier must develop the file transfer mechanism with the eMoney provider (across by CBM-Net and/or MPU Network). SSB will agree with the eMoney provider on the information to be sent and received. SSB needs to send detailed information on all employers and workers or other beneficiaries. This information will be needed for the eMoney provider in order to open bank accounts.

The eMoney provider will send an electronic file containing account details back to the SSB system.

Following are the main sub-deliverables to be produced:

- Process (contribution and benefits payment) design
- Application code development
- Testing
- Acceptance testing in the development environment.

### **37 Claims Process- Maternity Leave Process and Sickness-Web Development**

The supplier must develop the Web application to support the claims process. SSB will work with the supplier to design the new streamlined process.

The maternity leave claims process involves multiple steps of information update and approval involving medical clinics, Township offices, employers, workers and SSB headquarters. The system should have a workflow mechanism; each actor in the workflow should be informed by the system through internal mechanisms such as an in/out basket or email and SMS. Follow-up processes should be included so no claim will be left unprocessed. The claims process uses the event processor and the insurance programme processor and categories processor.

The worker or any beneficiary involved should receive follow-up information during the process.

All reports related to this process should be produced using the BI platform. Following are the main sub-deliverables to be produced:

- Process design
- Application code development
- Testing
- Acceptance testing in the development environment.

### **38 Benefits Payment Process for Maternity Leave and Sickness with Cash/E-Money- Web Development**

The supplier must develop the Web application to support the benefits payment process with Cash/eMoney. SSB will work with the supplier to design the new streamlined process.

Once a claim is approved, the payments are calculated and distributed to the worker or beneficiary through the Cash/eMoney scheme. Bank account balance reconciliation is included in this process.

Following are the main sub-deliverables to be produced:

- Process design
- Application code development
- Testing
- Acceptance testing in the development environment.

### **39 Claims Process - Survivor Benefits for Occupational Death (EI) Process - Web Development**

The supplier must develop the Web application to support the claims process. SSB will work with the supplier to design the new streamlined process.

The claims process survivor benefit for occupational death involves multiple steps of information update and approval involving medical clinics, Township offices, employers, workers and SSB headquarters. The system should have a workflow mechanism; each actor in the workflow should be informed by the system through internal mechanisms such as an in/out basket or email and SMS. Follow-up processes should be included so no claim will be left unprocessed.

The claims process uses the event processor and the insurance programme processor and categories processor.

The beneficiary involved should receive follow-up information during the process.

All reports related to this process should be produced using the BI platform. Following are the main sub-deliverables to be produced:

- Process design
- Application code development
- Testing
- Acceptance testing in the development environment

#### **40 Benefits Payment Process for Survivor Benefits for Occupational Death (EI) with Cash/E-Money- Web Development**

The supplier must develop the Web application to support the benefits payment process with eMoney. SSB will work with the supplier to design the new streamlined process.

Once a claim is approved, the payments are calculated and distributed to the worker or beneficiary through the Cash/eMoney scheme.

Bank account balance reconciliation is included in this process. Following are the main sub-deliverables to be produced:

- Process design
- Application code development
- Testing
- Acceptance testing in the development environment.

#### **41 Employer Inspection Process (by Township) - Web Development**

The supplier must develop a Web function that enables the Township offices to conduct employer site inspections for administrative verifications and audits. This process must enable inspection case management, inspection planning and inspection reporting. Some information must be updated in the employer's record concerning the inspection.

This process includes the full use of the BI reports and dashboard to provide information about the behaviour of a given employer or a group of employers based on area or on industry. It also involves the use of the event processor. The event processor will detect some patterns and flag the Township that has non-compliant employer behaviour.

Following are the main sub-deliverables to be produced:

- Process design
- Application code development
- Testing

- Acceptance testing in the development environment.

## **42 Medical Visit Process (HEALTH RECORD Updates AND Other) - Web Development**

The health record will be the same for the medical clinic, the worker's hospital and contracted medical clinics. The supplier must develop this Web process, which includes the following needs:

- Worker and beneficiary identification; ensure the person is covered by the insurance programme or a social security programme
- Health record creation and consultation
- Health record will be updated directly by the doctors and nurses. The doctors' and nurses' IDs must appear in the health record
- Health record must be sharable by all healthcare professionals across SSB health network (doctors, nurses, pharmacists, medical administrative support personnel)
- Creation, modification and consultation of worker's or beneficiary's health record; this must include:
  - vital statistics collected by the nurse and/or the doctor,
  - medical history (disease and treatment, test results),
  - standard diagnosis (categories),
  - doctor's notes (notes are to be seen only by the doctors and nurses, this is unstructured text),
  - nurse's notes (notes are to be seen only by the doctors and nurses, this is unstructured text).  
(Anonymous statistics MUST be easy to extract from the diagnosis for statistical analysis.)
- Worker's or beneficiary's drug and medication prescriptions (using personal ID):
  - Register medication or drug prescription using FDA code (SEE Deliverable 65)
  - Indicate quantity and concentration
  - All prescribed drugs and medications should be listed, along with FDA drug identification number and name, quantities, units, volumes. It MUST be easy to extract quantities per drug to help manage inventories in the health facilities.
- Referral letter (when a referral to a specialist or other special care is required):
  - Create, modify and consult referral letter using templates; it must include:
  - Ability to upload standard information about the specialist or other resources such as name, coordinates, categories of specialisation or care
  - Must be printable



- Must be able to be sent through email.

**The health records must be linked to the worker or beneficiary ID, and also to the ID of the doctor and nurse involved in the healthcare episode.**

**The modification date of each modified or updated information item must be recorded and visible to the users. The same applies to medication prescriptions and specialist referrals. It should not be possible to delete a health record. A health record lasts the life of the worker.**

All the information must be kept in the operational database to produce all the required reports at all levels. All medical information must be protected from inappropriate access.

The health record will be updated directly by the doctors and nurses.

Following are the main sub-deliverables to be produced:

- Medical clinic process design
- Application code development
- Testing
- Acceptance testing in the development environment.

### **43 Medication/Supply Management Process - Web Development**

The supplier must develop a basic process to help the medical clinics and the hospitals manage the use of their stock of medications. The concept is directly linked to the medication prescription process included in deliverable “51 Medical Visit Process”. The logistics of purchasing and distributing medications across the healthcare network is not covered by this process.

Every day, clinics and hospital departments must produce a summary report by uploading the information regarding the use of medications. Usually, nurses are the main people involved in medication supply management.

The Myanmar Food and Drug Administration (FDA) codes must be used.

The function should support the following information:

- Quantity of medications received and date of reception
- Quantity of unit and concentration of medications prescribed
- Quantity of units that have been lost, destroyed, spoiled or that are past due.

All this information is recorded in the system so that all required statistics can be produced by site, region or state.

Following are the main sub-deliverables to be produced:

- Process design
- Code development

- Testing
- Acceptance testing in the development environment.

#### **44 Outside Healthcare Referral – Web Development**

In some situations, SSB health facilities (medical clinics or workers' hospital) have to refer a worker to an outside healthcare facility. In such cases, the SSB health facility must officially refer the worker to a specific health facility. Using the worker's ID, the authorised SSB healthcare professional (it should be a doctor) will indicate in the SSB-IS that the worker has been **referred to (referral)\*** an outside health facility for a given health problem. The SSB-IS opens a unique referral ID number under the name and ID of the worker, along with coordinates for the SSB health professional who is doing the referral. Times and dates should be recorded. The system should provide a reminder to the SSB health professional about the status of the transfer (completed or not). After two weeks (this should be configurable by the system administrator) if the referral has not been taken in charge, the SSB health professional should follow up with the worker to understand what happened.

The supplier must develop a function to create a referral for a specific worker. A follow-up process must also be developed to remind the SSB healthcare professional about the referral cycle to see if it is completed or is still pending.

Dates of referral and referral statuses must be recorded (this should be automated).

\* Referral and transfer:

Referral means that a health professional is referring a case (patient) to another health professional, typically a specialist.

Transfer means that a patient is physically transferred (send to) to another physical healthcare facility.

**IMPORTANT:** The current design of the SSB-IS only supports the concept of referral. The concept of transfer is not supported.

Following are the main sub-deliverables to be produced:

- Process design
- Code development
- Testing
- Acceptance testing in the development environment.

#### **45 Outside Healthcare SSB-IS Administration – Web Development**

In order to support the reimbursement scheme for outside SSB healthcare facilities (also referred to as outside providers), some specific SSB-IS administration repositories must be updated. There are five repositories:

1. Authorised outside healthcare facilities

2. List of authorised healthcare treatments and diseases/diagnoses covered (based on ICD-10 and current SSB list; SSB medical department must provide the relevant identification and a short description for each treatment, disease or diagnosis considered)
3. Price list for authorised healthcare treatment
4. List of medications and drugs authorised for outside healthcare (based on current SSB list and FDA list; SSB medical department must provide the relevant identification, short description and accepted dosage for each authorised medication and drug).
5. Price list for authorised medications and drugs.

The supplier must develop a function to update those five repositories. All other claims processed for outside facilities will have to refer to those repositories. There should be a versioning mechanism, as SSB may have to go back in time to determine what was the effective price for a given healthcare treatment or medication.

Following are the main sub-deliverables to be produced:

- Process design
- Code development
- Testing
- Acceptance testing in the development environment.

## **46 Healthcare Reimbursement Claim by Worker – Web Development**

SSB-IS must support a claims process for a worker who receives healthcare and medications from outside SSB healthcare facilities. Those outside healthcare facilities may be public hospitals, private hospitals or private medical clinics contracted by SSB. A worker who receives care outside SSB healthcare facilities must directly pay the cost from his own pocket, except for public hospitals (see next bullet). He then submits a claim for reimbursement based on SSB reimbursement rules. The claim process can be done through the SSB's public Web application (directly by the worker or at the SSB Township office or SSB medical clinic with the help of SSB staff). This claim process works in real time.

The supplier must design and develop SSB-IS functions based on the following process:

Process overview:

- Workers are referred by SSB to some specific healthcare providers' facilities such as public hospitals, private hospitals or private medical clinics. When the workers show up, the referral healthcare facility's admission staff use the SSB -IS and the ID Card scanner to register the worker. The SSB-IS should inform the outside healthcare provider about the referral. That includes all information required to complete the admission and the context, which is an authorised transfer from an SSB healthcare facility. The outside healthcare facility should provide the expected care to the worker, for which a cost must be charged. Two cases are possible:

- A. If the outside provider is a public hospital, then the worker leaves without having to pay anything. The public hospital will make a claim to SSB through the SSB-IS. The referral status should be updated to “completed” with the dates and the name and ID of the healthcare professional (see Healthcare Reimbursement Claim by Outside Public Provider - Web Development).
- B. If the outside provider is a private hospital or clinic, the worker must pay for the service and medications. The private hospital or clinic will receive the payment directly from the worker upon issuing a detailed invoice to the worker. An SSB format of that invoice will be available in the worker’s file in the SSB-IS. The cost charged to the worker is specified by SSB rules which are found in the reference repository in the SSB-IS.
- For B, the outside private provider should access the SSB-IS and update the referral status to “completed” with the date and the name and ID number of the healthcare professional (a recognized doctor) who performed and/or prescribed the treatment. The parameters of the healthcare service and medication must be provided in order to generate a pending claim in the system and trigger the claims process on behalf of the worker. The worker receives a printout of the claim and a follow-up number. He must also receive a proof of payment from the outside provider. The claim and the invoice should be generated based on the SSB rules, which are documented in the reference repository of the SSB-IS.
  - The worker must go to an SSB medical clinic or workers’ hospital to obtain proof that the private clinic or private hospital is compliant. The SSB medical clinic must send the claim to SSB’s head office medical department for it to be accepted.
  - Once the SSB office medical department approves the medical claim, the SSB-IS issues a payment via check or eMoney.

Following are the main sub-deliverables to be produced:

- Process design
- Code development
- Testing
- Acceptance testing in the development environment.

## **47 Healthcare Claim Reimbursement to Outside Public Hospital (Provider) - Web Development**

The healthcare professional from the outside public hospital (outside public provider) must update the status of the referral in the SSB-IS to “completed”. He will also indicate which treatment and medications were provided (which are already preconfigured based on repository information) following the SSB-IS

automated dialogue. Once the treatment and or medications have been properly updated in the system, the SSB-IS is asked to process the claim. The SSB-IS will automatically send the claim every month to be approved and paid for by the SSB medical department.

A public hospital that does not have Internet access will have to send a claim on paper to a SSB Township. The SSB Township will create the claim in the SSB-IS for the hospital.

Every month, the SSB medical department receives all public hospital claims. All the parameters can be displayed in the online report (on-screen, or may be printed but this should be avoided). The following information is provided:

- Unique referral ID, date of referral, date of referral acceptance
- Name and ID of medical professional who performed and prescribed treatment and medication.
- Treatment and medication, coded according to SSB rules (from repository information)
- Cost calculation detailed by treatment and medication
- Date of claim (date=day when referral was updated)
- Total cost of claim.

The SSB medical department approves each claim in the SSB-IS. The SSB-IS stamps the date and time of acceptance and the name and ID of the approver. If a given claim cannot be approved, that claim is put on hold for further investigation until it is approved. All other accepted claims are pooled, and a payment is issued to the outside hospital.

The payment may be made via cheque or electronic payment.

Following are the main sub-deliverables to be produced:

- Process design
- Code development
- Testing
- Acceptance testing in the development environment.

## **48 FDA File (soft file) Update and Import Process - Web Development**

The supplier must develop a Web function that enables an SSB medical department to create and modify the official Myanmar Food and Drug Administration (FDA) standard list of medications. This list is used by the prescription mechanism and medication supply process.

The FDA file function may be shared by the Myanmar FDA organisation itself, so that it can use the tool for both themselves and to the benefit of SSB.

All information regarding medication identification, categories, unique identification number should be considered.

Following are the main sub-deliverables to be produced:

- Process design (list update dialogue and electronic file transfer)
- Application code development

- Testing
- Acceptance testing in the development environment.

## **49 Financial Accounting System**

The supplier must develop a Web function that enables an SSB financial accounting system to do the following by SSB Budget Title:

- General Leger System
- Balance Sheet System
- Reporting System (Weekly, Monthly, Yearly)
- Depreciation System
- Capital and Current Budgetary System

Following are the main sub-deliverables to be produced:

- Process design (list update dialogue and electronic file transfer)
- Application code development
- Testing
- Acceptance testing in the development environment.

## **50 Usage Design for the Business Intelligence and ETL Software Solution**

SSB provides the BI and ETL software products already implemented in the datacentre, but SSB expects the supplier to provide a design structure for the use of the Business Intelligence (BI) platform components provide by SSB (Microsoft product). It must also provide the structure design for the use of the Extract, Transform and Load (ETL) mechanism (programming language or any required tools or software) to support the ETL program with updating the BI database from all required operational databases.

The supplier must also provide the BI database design structure and naming conventions. Following are the main sub-deliverables to be produced:

- BI and ETL usage design
- BI database design and documentation (the BI and ETL software documentation facilities can be used for that purpose, but the documentation must be structured in way to be easily understood by trained SSB IT staff)
- BI and ETL and software integration test
- Testing and trial.

## 51 BI, ETL and Storage Solution for Core Business Process - Development

SSB provides the Business Intelligence tools (based on MS-Power BI) and storage infrastructure. The supplier must use the SSB BI (business intelligence) and develop or reuse the ready-made ETL (extract-transform-load) and storage solution.

The BI tools are expected to be based on Microsoft Power BI. It will be the supplier's responsibility to make the most effective use of the Power BI technology.

The BI, ETL and storage solution must be implemented in the datacentre and be connected properly to the storage server.

The whole idea of having a Business Intelligence and reporting tool is to provide an efficient way of producing reports for end users, both for daily operation, management needs and decision making. Ideally, all reports should be prepared via the Business Intelligence solution, but for performance considerations, it may be useful to develop standard reports with standard programming tools at some point. It should not be the default rule.

The supplier must propose and deliver a BI solution that meets this fundamental need for the project. It is expected that implementation will be done in a way to optimize performance.

It is expected that the solution includes, minimally, the following components:

- ETL (extract, transform and load) tools
- Data warehouse and/or OLAP (Online Analytical Processing)
- Reporting environment
- Dashboard tools.

Most of the data contained in the operational database must be uploaded to the BI environment. This means that a number of ETLs should be developed or configured to upload operational data to the BI storage solution. It may be required to set a number of data marts or specific data sets in order to meet the needs of the organisation while achieving high performance in report production. For example, there may be a need to have departmental data marts.

The reporting capability should include both specialized reporting and user-friendly report-building capacity.

**Operational reports should be available with real-time information updates directly through a Web application.**

**Reports must be available online. All SSB departments and SSB Township offices, medical clinics and hospitals will have access to the reporting tools.**

The solution should also have dashboard capacity to present information and key performance indicators to the SSB. Following are the main sub-deliverables to be produced:

- BI, ETL and storage design
- BI and storage environment configuration and parameterization
- ETL development for core business process (Registration, Contribution, Claims, others)
- Preliminary loading of all available data (mainly from registration)
- Testing
- Acceptance testing in the development environment.

## **52 Report Development Using BI Environment - Development**

The supplier must develop all required reports for the business processes using the BI platform and reporting tools. Following are the main sub-deliverables to be produced:

- Report-building process design
- Report framework and standard report development
- Report development for all business processes
- Testing
- Acceptance testing in the development environment.

## **53 Dashboard Development Using BI Environment - Development**

The supplier must develop all required dashboards for the business processes using the BI platform. Key process indicators must be identified and presented to the director and middle managers involved with all the business processes. Following are the main sub-deliverables to be produced:

- Dashboard-building process design
- Dashboard framework setting or development
- Dashboard development for all department directors' processes
- Testing
- Acceptance testing in the development environment.

## **54 Fortimail 400F (Security Appliance Router) Licenses Renewal**

The supplier must support a Fortimail 400F (Security Appliance Router) Licenses Renewal for **two-year**.

Following are the main sub-deliverables to be produced:



- FortiCare Premium and FortiGuard Base Bundle must include: (2 Years)
  - Hardware Replacement (Back to Oversea Factory), Firmware and General Upgrades
  - FortiCare Premium Ticket Handling
  - FortiGuard AS & AV, FortiGuard Virus Outbreak Protection
  - Identity Based Encryption
  - Archiving
- License Activation, Installation and Testing

## **55 SSL Certificates for SSB Facilities**

The supplier must support a one-year lifetime SSL Certificates for SSB Facilities.

Following is the main sub-deliverables to be produced:

- SSL Certificates for SSB Facilities (2 Year after launching the system at production environment)
- Supports OV Wildcard SSL
- Licenses Activation, Installation and Testing

## **56 Security Licenses/Anti-Virus Software for (300) SSB Facilities**

The supplier must support a two-year lifetime Security Licenses/Anti-Virus Software for (300) SSB Facilities.

Following are the main sub-deliverables to be produced:

- Security Licenses/Anti-Virus Software for (300) SSB Facilities (1 Year after launching the system at production environment)
- License Activation, Installation and Testing

## **57 One-Year Guarantee, Maintenance and Operation Agreement**

The supplier must support a one-year guarantee and maintenance period for all the functions and hardware once all of them have been delivered.

The supplier must support a one-year guarantee, maintenance and operation period as soon as all the agreed-upon functions go into production.

Service level agreement (SLA) for guarantee and maintenance:

- All components of the SSB-IS should be available 24 hours/7 days per week.
- Guarantee calls and maintenance calls for critical components should be answered from 8:00 AM to 10:00 PM 7 days per week.
- Guarantee and maintenance services for other components will have to be supported from 9:00 AM to 18:00 PM 5 days per week.

Critical components:

- SSB-IS security (cyber-attack monitoring)
- SSB-IS and Internet connection
- SSB-IS database status (no fatal error monitoring)
- SSM-IS system and database backup operation.

Production service level agreement (SLA):

- The SSB-IS is to be operated on a 24 hour/7 day per week schedule.
- The supplier must support operations from 8:00 am to 10:00 PM. It must be on-call for the remaining time of the day.

To support the guarantee, maintenance and operation agreement, SSB expects the supplier to operate a Helpdesk centre to receive and handle support calls from SSB users concerning issues and problems with system usage.

Guarantee:

Guarantee means the remediation of any bugs or problems that are causing data accuracy or corruption problems, security issue problems, reporting problems, performance problems and usability problems. Bug correction includes testing approval and deployment steps.

Maintenance:

Maintenance means improvement of the current system according to an agreed-upon plan with SSB. All improvement request should be analysed and prioritized with the Steering Committee or SSB Board of Directors.

Maintenance will focus on adding some data concepts that may have been forgotten, introducing new social security schemes, improving reports, improving the BI database, improving or modifying the eMoney scheme and linking with bank services, and improving data import and export functions.

It will also include Microsoft planned upgrade implementation and other OS planned upgrades required. It also includes ensuring that the database behaves according to Microsoft rules (for example, manage warning messages).

The maintenance process includes documentation, testing, approval and deployment steps.

Operation agreement:

Operation agreement means actively supporting SSB IS staff by working with them to perform the following tasks:

- Operate a Helpdesk to receive calls from SSB users and IT staff. Calls will concern SSB-IS system access problems, security issues, reporting problems, BI solution problems, transaction problems.
- Maintain essential documentation on maintenance steps.
- Monitor system performance (latency time for online transactions, execution time for database updates).
- Security surveillance for malware and outside threats, in the database and in the network Interface.
- Manage user enrolment (newly hired personnel, personnel who leave) in the system; provide new system access ID to new SSB personnel.
- Provide support to main users.
- Execute systematic system backup and rollback of all SSB-IS components: code, database, BI database.
- The backup recovery exercise should be run at least once per year.
- Provide support to ensure proper correct batch processing such as BI database uploading.
- Provide support to produce extraction queries for export purposes. Support reporting using Power BI. Provide support for the database administration task to keep the entire system running smoothly.

Minimal supplier resource requirement:

For this guarantee, maintenance and operation agreement to work, **SSB requests** that the supplier maintain in the SSB's head office facilities at **least 7 (seven) IT specialists and at least 2 (two) helpdesk resources, making a total of 9 (nine) resources:**

- One team leader and system analyst.
  - The team leader will be responsible for managing the workload and making sure that all bugs are corrected, maintenance demands are prioritized and deployed, and that system operations are executed properly.
- One database administrator.
- One security and software specialist.
- Three software developers knowledgeable of all SSB-IS functions.
- One BI and report specialist.
- Two helpdesk resources.

The MINIMUM number of resources to be maintained in SSB headquarter is 9 resources.

**Remark: Each supplier's IT resource will have to be paired with at least one SSB IT staff member. The SSB-IT staff member will learn from and work with the supplier's personnel.**

On-call specialist

On top of the minimal supplier's guarantee, maintenance and operation team, the supplier must provide ad hoc IT specialists to support its team when required. Those IT specialists do not have to be in SSB's offices, but they must be easily available to support the supplier's team when required.

The supplier's IT specialists must have been part of the supplier's team for the development of the SSB-IS. They must be knowledgeable of the system.

**END OF DOCUMENT.**