

PART 2 – SECTION A
GENERAL REQUIREMENTS

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1 INTRODUCTION

- 1.1 The Ministry of ABC (henceforth referred to as the “Authority” or “ABC”) invites Tenderers to provide proposals to design, implement and maintain a new government loan administration system using a Software-as-a-Service model.
- 1.2 The Tenderer shall propose the Solution as Software-as-a-Service with multi-tenancy model on public commercial cloud and with data to be hosted locally in Singapore. Multi-tenancy means that a single instance of the software and its supporting infrastructure serves multiple customers. Each customer shares the same software application and the tenant’s data is isolated and remains invisible to other tenants. Configuration can be done while leaving the underlying code base unchanged.
- 1.3 The product principal of the SaaS (i.e. the Software Proprietor) shall be consulted where necessary and to have a role (e.g. review the design and configuration) to ensure successful implementation and delivery of the Solution.
- 1.4 The Contract Period shall be the combination of the following two periods:
- a) On-Boarding Period: - Refer to Annex B: From the Commencement Date up to the Services Commencement Date; and
 - b) Subscription Period: Initial Subscription Period of 3 years, with option to extend the Initial Subscription Period by one or more consecutive period of two years each provided always that the cumulative period of such extensions shall not exceed four years.
- 1.5 The Tenderer shall have a back-to-back agreement, equivalent to a support agreement, with the Head Licensor, that creates a legal obligation for the Head Licensor to provide the Tenderer with such support as the Tenderer would require to perform the Services under the Contract, and such agreement shall remain valid throughout the Contract Period

2 SCOPE OF TENDER

- 2.1 Tenderers are invited to submit a complete Tender Offer to provide the following **TWO (2)** main categories of the services via Software-as-a-Service model:

Base services

- a) Provide On-boarding (including software and development) to the Solution to cover the base scope User Stories and other mandatory using Agile methodology;
- b) Provide a data conversion / migration plan and to carry out the cleansing, conversion, migration and verification of the data from existing systems required to onboard the Solution;

Optional Services

- a) Provide the Other Services, which shall include professional services to configure and customise, where required, the Solution to support policy changes and new requirements via service requests as specified in **Part 3, Annex A**; and
 - b) Provide Professional Services relating to training conducted by the Contractor under Clause 28 of Part 1 Section B and **Part 3, Annex A**;
- 2.2 The Tenderer shall minimise customisation to the SaaS where possible, prioritising configuration in order to minimise the cost of maintenance. The Tenderer is required to provide details of customisation and state the percentage of customisation to be done according to the number of requirements that need customisation. The use of third party add-on modules is permitted to minimise customisations. The Tenderer shall state all the third party add-on modules to be used in the Tender Offer and clearly itemise them in **Part 3 Annex A**.
- 2.3 The Tenderer shall submit itemised pricing of the proposed products and services using the cost schedules and the given format stipulated in **Part 3 Annex A**. The prices for all optional items or features shall be itemised separately. Volume discounts and tiered subscription for differentiated access rights shall be clearly specified where applicable.
- 2.4 The Tenderer shall ensure that the Tender Offer is complete and comprehensive with all requirements included in the proposed solution.
- 2.5 The Authority reserves the rights to award in full or in part the Services proposed by the Tenderer. All mandatory and optional requirements

shall be quoted in the Tender Offer. Partial or incomplete Tender Offers will be rejected.

- 2.6 After the Closing Date and Time, the Tenderer may be required to conduct presentation(s) / demonstration(s) and provide clarification(s) on the proposed solution at no additional cost to the Authority.
- 2.7 The Tenderer shall provide sufficient pricing details such as assumptions or requirements upon which prices are dependent to facilitate the Authority's understanding of the basis of the Tender Offer.
- 2.8 The Tenderer shall provide further cost breakdown promptly when requested by the Authority.
- 2.9 The Tenderer shall assess and propose the man-days and timeline needed to meet the requirements of each SR to be raised during the Contract Period as part of service request management. Any unutilized man-days shall roll over to the following year within the Contract Period. To avoid doubt, the Authority shall not be obliged to exercise the option to utilize any or all man-days.
- 2.10 The man-days can be consumed anytime during the Contract Period.
- 2.11 The Tenderer shall remain solely responsible for the completeness and adequacy of the Solution design, performance and deliverables required in this Tender.

3 SCOPE OF WORK

- 3.1 The Contractor shall carry out requirement gathering, design, deployment and configuration of the Cloud Services in the Contractor's cloud environment. There shall be proper documents on these completed activities.
- 3.2 The Contractor shall be wholly responsible for the on-time delivery of the Solution according to the Requirements Specification and contractual terms. The scope of work includes, not limited to:
- a) Project Inception, Kick-off & Planning;
 - b) Agile Orientation Program
 - c) Prioritised Product Backlog
 - d) Product backlog refinement, User story refinement
 - e) Sprint planning and Sprint backlog refinement

- f) Sprint Review and Retrospective
- g) Development / customisation strategy
- h) Fit-gap Analysis (items which require customization)
- i) Daily/Weekly Scrum Stand-ups
- j) Sprint Testing (automated and manual)
- k) Release Planning and Management
- l) Detailed System Design and Architecture
- m) Deployment and configuration of Services
- n) Data Interfaces with other systems
- o) Integration Testing
- p) Data Conversion and migration from existing systems
- q) Migration Plan
- r) System Performance Testing
- s) System Security Acceptance Testing
- t) UAT Support
- u) Training (including provision of Training Material / Guide)
- v) Documentation

3.3 The Contractor shall carry out a detailed requirements study with the Authority during the On-Boarding Period. In the process of defining and confirming detailed requirements, the Contractor shall review and propose improvement to business processes so as to enhance efficiency and effectiveness, and propose best practices and enhancements in workflow.

3.4 The Contractor shall propose a strategy to convert and migrate data from the existing systems and selected data sources to the Solution for cutover in accordance with the Implementation Plan. The Contractor shall ensure data integrity and accuracy before and after conversion and migration, with data rectification should abnormalities be detected which shall then be rectified and revalidated before continuing with the migration.

- 3.5 In the event of data discrepancies found in the Solution with that of the existing system or other selected data source(s) after the conversion and migration, the Contractor shall work with the Authority, Users and their existing vendor(s) to investigate the cause and rectify the data discrepancies and/ or other contributing issues with revalidation prior to data migration.
- 3.6 The Contractor shall propose and execute a comprehensive Change Management Plan that minimally includes communication, deployment and training to gradually and effectively introduce Users to the Solution and related procedures before, during and after the rollout of the Solution.
- 3.7 The Contractor shall work with vendors maintaining the systems at any Workplace as well as with other Government agencies and Users for interfacing with the relevant external systems.
- 3.8 The Contractor shall perform system performance testing services which shall include the provision of a Test Plan to ensure that the Solution meets the specified performance standards prior to system commissioning. The Contractor shall have the proposed Solution performance tested based on the capacity sizing proposed while under the maximum concurrent load within the response time and availability requirements. Please refer to **Part 2, Section E** for details.
- 3.9 The Solution shall be developed using Agile methodology so that business value can be realised early through early releases of the Solution, which shall be worked out together with the Authority. The Contractor shall ensure that the Implementation Schedule meets the milestones described in **Part 2 Section A Annex B**.
- 3.10 The Tenderer may propose that some of the Services are carried out offshore, provided that the Tenderer is able to comply with the clauses relating to Offshore Services stated in Clause 9 of this **Part 2 Section A**. The Tenderer shall clarify in its Tender Offer how it intends to comply with such Clauses.
- 3.11 The Contractor shall draw up the Sprint schedule using Microsoft Office tools (e.g. Excel) and submit the softcopy to the Authority within **FOURTEEN (14)** Working Days from the Commencement Date. The schedule shall be submitted as part of the Implementation Plan.

4 DEVELOPMENT AND PROJECT MANAGEMENT

- 4.1 The Tenderer shall propose a preliminary Implementation Plan for the purpose of Tender evaluation, and the Contractor shall submit an

updated Implementation Plan as per stipulated in Clause 12.4.1 of Part 1 Section B (Conditions of Contract).

4.2 Implementation Plan

4.2.1 The Tenderer shall provide, as part of the Tender Offer, a preliminary Implementation Plan which sets out all events necessary for the commissioning of the Solution, including without limitation:

- a) The project schedule up to a task level that meets or exceeds the target project milestone dates set out in **Part 2 Section A Annex B**.
 - b) The proposed sequence of On-boarding and/or Releases, in terms of the order in which the various User Stories and functional requirements will be implemented.
 - c) The number of Sprints, between scheduled Releases, that shall be required for implementation.
 - d) The proposed detailed implementation and Acceptance Test schedule that addresses the following:
 - i) When each of the various User Stories, functional requirements and/ or release will be implemented/ completed;
 - ii) What are the various types of Acceptance Tests to be performed for each intermediate Release, the proposed criteria which must be met in order to pass such Acceptances Tests i.e. the Definition of “Done”, and when the Acceptance Tests will be conducted;
 - iii) When the infrastructure for the staging and production environments will be set up;
 - iv) What are the data to be migrated from the existing systems and when;
 - v) When will the cut-over from the existing intranet financial systems take place;
 - vi) What are the various types of Acceptance Tests to be conducted on the final Release, the proposed criteria which must be met in order to be certified as the final Release for the purposes of the commissioning of the Solution i.e. the definition of “done”, and when the relevant Acceptance Tests will be conducted.
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- e) The sequence, duration and frequency of team interaction/working discussion and/or activities that feature in each Sprint and Release cycle. These shall include without limitation, the following:
 - i) Sprint Inception – to work out an initial list of requirements (e.g. which items from the Product Backlog to include in the Sprint, agree on a description on the deliverables by the end of the Sprint);
 - ii) Stand-up Meetings – to share status and identify potential issues;
 - iii) Iteration Planning Sessions to review work-in-progress items and to identify new work tasks for the current Sprint;
 - iv) Stakeholder Review – to provide a demonstration of the implemented items to the Authority;
 - v) User Acceptance Testing of implemented items; and
 - vi) Retrospective Review – share learning experiences and determine the strategy for the next Sprint;
- f) The implementation-schedule-related key performance indexes that the Tenderer commits to meet, as set out below:
 - i) Committed Sprint Velocity (as defined in Part 1 Section B); and
 - ii) Maximum duration of each Sprint – in terms of the maximum number of weeks that each Sprint would last, which would cover all necessary activities for the implementation of the Product Backlog Items that have been included in the Sprint schedule.

4.3 Sprints

4.3.1 The Contractor shall comply with the Sprint Velocity and maximum duration for each Sprint as committed in its Implementation Plan.

4.3.2 In the event the Contractor is unable to complete the implementation of the User Stories that are scheduled for a particular Sprint, the Authority shall not be obliged to agree to an extension in time allocated for the affected Sprint. In such instance, without prejudice to the Authority's rights and remedies, the Authority may work with the Contractor to mutually agree to:

- a) Take out the unimplemented User Stories from the affected Sprint and to reprioritise such unimplemented User Stories in the Product Backlog; and/or
- b) Carry forward to the next Sprint, the difference between the actual number of Story Points implemented and the minimum number of Story Points that was supposed to have been implemented in the affected Sprint.

4.4 Tenderers Experience

4.4.1 The Tenderer shall demonstrate in its Tender Offer that its project team has the capability and possesses the relevant experience and track record in managing, developing, implementing and supporting project of similar or larger scale, value, nature and complexity for such implementation.

4.4.2 The Tenderer shall possess the relevant experience and track record, as well as an established methodology based on Agile project development.

4.4.3 The Tenderer shall provide the Curriculum Vitae (CV) of all key personnel (i.e. Service Delivery Manager, Scrum Master, Scrum Leads, Developers, Solution/Cloud Architects, Test Leads, Business Analysts and DevOps Leads) and their backup including each personnel's experience in the development and implementation of the SaaS and other systems which are relevant to this Tender in the format provided in Part 3, Annex D.

4.4.4 The proposed key personnel (i.e. Service Delivery Manager, Scrum Master / Solution Architect, etc) are required to be present to present the Tender Offer if the Tenderer is called upon by the Authority to present the proposed solution.

4.4.5 The Tenderer shall cite three existing customer references.

4.4.6 The Tenderer should demonstrate its ability to tap on a ready pool of Agile resources. Tenderer should indicate the notice period required for ramp-up of such resources.

4.4.7 The Tenderer should demonstrate its Agile team competency development plan (e.g. agile team training, ongoing certifications etc) if required by the Authority to do so.

4.5 Project Organisation and Project Team Requirements

4.5.1 The Tenderer shall submit a detailed project structure clearly specifying duties and responsibilities of all the Personnel from the Tenderer that it

intends to assign to perform the Services should it be awarded the Tender. During Tender evaluation, the Tenderer's proposed team must be available to attend interviews, if requested by the Authority.

4.5.2 All Personnel assigned to perform the Services during the Contract Period shall be security cleared and approved by the Authority.

4.5.3 The Contractor shall use its best endeavors to ensure that all Personnel making up the members of the Contractor team involved in the performances of the Services shall be stationed in Singapore throughout the Contract Period.

4.5.4 The Contractor shall propose the optimal manpower team size required to meet the scope of works stipulated in the Requirements Specification.

4.5.5 The Contractor shall ensure continuity in project staffing and their respective roles and responsibilities, so as to minimise any disruption and impact to the quality of work and the operations of the Services.

4.5.6 The Tenderer shall provide references for which the Authority could check regarding the performance of the proposed key personnel, if requested by the Authority.

4.5.7 The Contractor shall ensure that its proposed project team keeps updated on the latest technology / operating system trends as applications are constantly upgraded to meet technology changes.

4.6 Contractor's Service Delivery Manager

4.6.1 The Contractor shall designate a Service Delivery Manager who shall be the single point of contact to the Authority for the development, implementation, warranty and maintenance of the Solution.

4.6.2 The Service Delivery Manager shall be based in Singapore for the Contract Period.

4.6.3 He shall undertake full responsibility for the quality of work produced by his team and the Sub-contractors.

4.6.4 The Service Delivery Manager shall have the following qualifications/experience:

- a) At least **FIVE (5)** years of IT project management experience with at least **THREE (3)** years of SaaS implementation experience;
- b) Completed at least one Agile project with the relevant Agile experience;

- c) Possesses prior experience in managing projects of similar scale, nature and complexity;
 - d) Good knowledge of the products and services that the Contractor is offering;
 - e) Supervisory, planning, and management skills; and
 - f) Good communication skills in English.
 - g) Be customer-oriented and possess experience in dealing with IT requirements from the business perspective.
- 4.6.5 The Service Delivery Manager shall manage the scope, time and quality of the Services delivered to ensure that the timelines in this Contract are met.
- 4.6.6 The Service Delivery Manager shall lead, supervise and oversee activities of the team and to ensure specified service levels are met.
- 4.6.7 The Service Delivery Manager shall monitor and manage effectively any Sub-contractor. All matters that require interface between the Sub-contractors shall be coordinated by the Service Delivery Manager to ensure harmony in the relationship among all parties concerned and to establish a common understanding of the Authority's requirements.
- 4.6.8 The Service Delivery Manager shall report to the Product Owner.
- 4.6.9 The Service Delivery Manager shall prepare monthly progress and status reports, supplementary documentation, and if applicable, performance / fault analysis report required by the Authority. The frequency of such reports shall be discussed and mutually agreed between the Contractor and the Authority.
- 4.6.10 The Service Delivery Manager shall provide a contact person and contact number to remain contactable if so required by the Authority. The cost of buying and maintaining the handphone or pager shall be fully paid for by the Contractor.
- 4.6.11 The Service Delivery Manager shall be present at all progress meetings and report the progress of the Services. If the Service Delivery Manager is not available, he shall be duly represented by a person of higher authority and who shall have good knowledge of the project status and issues.
- 4.7 Tenderer's Scrum Master or Equivalent

- 4.7.1 The Tenderer shall designate a Scrum Master or equivalent that will coach the Scrum or equivalent team in planning and executing the requirements as stated in Part 2, Section A-F. The Scrum Master shall be the main point of interaction between Product Owner and the Tenderer's project team.
- 4.7.2 The Scrum Master shall be based in Singapore for the entire On-Boarding Period.
- 4.7.3 For avoidance of doubt, the role of a Scrum Master is not the traditional project manager, rather he is a "Servant Leader" who helps the rest of the Scrum team follow the Scrum process. Therefore, the Scrum Master must have good understanding of the Scrum framework and the ability to train others in its subtleties. For full description of Scrum Master, please refer to The Scrum Guide¹ or equivalent agile development methodology.
- 4.8 Contractor's Business Analyst
- 4.8.1 The Contractor shall designate a Business Analyst, who shall have at least a Diploma, with at least THREE (3) years as a Business Analyst, Scrum Master, Product Owner or equivalent in Agile projects. The person shall be a Certified Product Owner or Certified Scrum Master or equivalent.
- 4.8.2 The Business Analyst shall be based in Singapore for the entire On-Boarding Period.
- 4.8.3 The Business Analyst shall be the primary liaison between the business, technical and external stakeholders for all requirements during the requirements gathering phase of the project.

5 OFFSHORE SERVICES

5.1 DEFINITIONS

- 5.1.1 The following words and expressions shall, unless the context otherwise requires, have the following meanings assigned to them:
- a) "Offshore Country" means the country (other than Singapore) in which the Offshore Facility is to be or is located or where the Offshore Services are to be performed or are performed.
 - b) "Offshore Facilities" means any part of the setup through which the Offshore Service Personnel perform the Offshore Services, including any physical office space, hardware, software,

¹ <https://www.scrumalliance.org/why-scrum/scrum-guide>

development machine or network that link to the CI/CD pipelines or code repositories in one or more Offshore Countries.

- c) “Offshore Service Personnel” means any Service Personnel provided by or to be provided by the Contractor to perform Offshore Services.
- d) “Offshore Services” means such part of the Services to be provided by the Contractor from any Offshore Country under the Contract.
- e) “Onshore Service Personnel” means any Service Personnel provided by or to be provided by the Contractor to perform the Contract from Singapore.
- f) “Working Hours” means the following hours in Singapore Standard Time on each Working Day:
 - i) 8.30am to 6.00pm on Mondays to Thursdays; and
 - ii) 8.30am to 5.30pm on Fridays.

5.1.2 Services that cannot be provided offshore

5.1.2.1 The Contractor may offshore the provision of all Services save for the Services specified in Clause 5.1.2.2.

5.1.2.2 The Contractor shall not offshore the provision of the following Services:

- a) User experience design services;
- b) Discovery services

6 Annex A: INTENTIONALLY LEFT BLANK

7 Annex B: Project Milestone

The Contractor shall ensure that the Services meet the targeted milestone dates indicated below. Notwithstanding, the Contractor may propose a revised implementation schedule, subjected to approval and acceptance by the Authority, if features can be rolled out earlier.