**Project Ref No: XXX**

**APPLICATION FOR APPROVAL FROM AO (AOR) FOR USE OF FUNDS for Secure Hybrid Integrated Pipeline (SHIP)/Hive Agile Testing Solutions (HATS) 2.0 Subscription for ABC Project**

Approving Officer (Approval of Requirement)

D/Department

Through:          SAD/ Department – Supported (10 May 2023)

SAD/Department – Supported (9 May 2023)

**AIM**

This email seeks D/Department’s approval for the use of funds for Secure Hybrid Integrated Pipeline (SHIP)/Hive Agile Testing Solutions (HATS) subscription for ABC Project for 1 year estimated 1 **Jul 2023 to 30 Jun 2024** via ​Memorandum of Understanding (MOU).

1. Secure Hybrid Integrated Pipeline (SHIP)/Hive Agile Testing Solutions (HATS) offered by GovTech

**BACKGROUND**

1. Since Mar 2023, the Ministry has commissioned the online portal (ABC) to support families with needs with relevant information, resources and services.
2. SHIP is a continuous integration and continuous deployment (CI/CD) platform that automates the delivery of applications and simplifies policy clearance. HATS is a functional test automation tool for web and mobile applications. It allows government developers to define end-to-end test scenarios and implement the test steps/actions, together with assertion checks. SHIP-HATS is the Singapore Government’s CI/CD Platform which aims to help the Singapore Government modernise application development and operations. Implementing a CI/CD process has many technical advantages including smaller code changes, fault isolations and faster mean time to resolution (MTTR). Through continuous testing of small pieces of code before it is integrated into the code repository, developers can recognize a problem before too much work is completed afterward.
3. To enable agencies to adopt CI/CD, GovTech has developed SHIP-HATS which bundles a set of CI/CD tools. The benefits of SHIP-HATS are:
4. Baked in technical requirements arising from IM8; developers can be assured that there is baseline compliance for each category of applications. This will also reduce the audit footprint from having to audit each application to audit the SHIP-HATS as a platform.
5. Reduced set-up and operations time; developers can spend less time to build tools for provisioning, runtime, orchestration and management in order to deliver better and faster applications.
6. Lower development costs: having central development and management of common components can bring about better economies of scale and reduce duplication by agencies.
7. ABC project has currently subscribed to SHIP-HATS 1.0 and will migrate to SHIP-HATS 2.0.

**COST OF HOSTING ENVIRONMENT**

1. The estimated cost breakdown for a period of **12 months (from 1 Jul 2023 to 30 Jun 2024)** as shown below is based on **Annex A** (Estimated Cost calculated based on components to be subscribed and number of users usingSHIP-HATS2.0)**.**  As this subscription is offered by **GovTech** hence there is no need for getting quotes from other vendors and comparison of quoted price before subscribing. Also, as price of subscription are subject to change every year and the need of project may change over time it is recommended to do the AOR for the period of 12months first.

**Cost Breakdown**

|  |  |  |  |
| --- | --- | --- | --- |
| **S/N** | **Items** | **1 Jul 2023 to 30 Jun 2024** | **Remarks** |
| 1 | SHIPS-HATS 2.0 | SGD $5,380 per month X 12 months | Offered by GovTech  **Refer Annex B**- Currently Indicative pricing is quoted by GovTech |
| **Total** | | **$64,560** |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Type of Funding** | **Cost Centre** | **Account Code** | **Programme Code** |
| Internal Fund | 999999 | 111111 (25%) | XYZ01 |
| Fund from Board | 999999 | 111111 (75%) | XYZ01 |

1. Funds are available in the following accounts (listed in the table below) to meet this expenditure:

**FOR APPROVAL**

1. For D/Department’s approval as AO(AOR) on the use of funds (para 6-7) for this subscription, please.

Thank you.

**Submitted by:**

Name of Officer:                         Sam Tan

Designation of Officer:              Project Manager - Agile

Name of Division/Branch:        Ministry ITD

**Annex A - Estimated Cost calculated based on components to be subscribed and number of users using SHIP-HATS2.0.**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | **Estimated Cost for SHIP-HATS 2.0** | |  |  |  |  |
|  | **Per Month (A+B)** | **$5,380** | |  |  |  |  |
|  | **Per Year** | **$64,560** | |  |  |  |  |
|  |  |  |  |  |  |  |  |
| **Base Bundle(s)** | |  |  |  |  |  |  |
| **Category** | **Tools** |  | **Component** | **Unit cost** | **Total for Subscription per month** | | |
| **1st Bundle\*** | Base Gitlab (Ultimate) Users | | 3 users | $1,500 | **3** user(s) | | $1,500 |
|  | Additional Gitlab (Ultimate) Users | | 1 user | $130 | **1** user(s) | | $130 |
|  |  |  |  |  | **A** | **Total** | **$1,630** |
| ***\*****Base bundle includes: -3 Gitlab Ultimate user licenses -Office hours support (Monday - Friday, 9 am - 5 pm) -pCloudy Device device testing (shared)* | | |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| **Add-Ons** | |  | | | | |  |
|  |
| **Category** | **Tools** |  | **Component** | **Unit cost** | **Quantity** | **Per Month** |  |
| **Development** | Jira | | 1 user | $30 | 13 | $390 |  |
| Confluence | |  |
| **Build** | Gitlab (Ultimate)\* | | 1 user | $130 | 8 | $1,040 |  |
| Nexus IQ | | 1 user | $60 | 8 | $480 |  |
| SonaType |  |  |
| Nexus Repo | |  |
| **QA & Security** | pCloudy Testing Farm | Dedicated iOS Device | 1 iOS device | $480 | 0 | $0 |  |
| Dedicated Android Device | 1 Android device | $400 | 0 | $0 |  |
| Sonarqube | Basic (15 Languages) | 1 lot shared across subscription;  no restrictions of lines of code & number of applications | $10 | 8 | $80 |  |
| Additional 7 Languages | $200 | 0 | 0 |  |
| Fortify-On-Demand | | 1 application; An app can be shared across multiple GitLab Projects, but tests cannot be run in parallel | $220 | 8 | $1,760 |  |
| **Support\*** | Extended Support | Non-working hours | 1 hour | $90 | 0 | 0 |  |
|  |  |  |  | **B** | **Total** | **$3,750** |  |

**Annex B – Indicative Pricing by SHIP-HATS 2.0**

A screenshot of a computer program

Description automatically generated

**Reference** [Secure Hybrid Integrated Pipeline (SHIP) - Indicative Pricing 2.0 (sgnet.gov.sg)](https://sgdcs.sgnet.gov.sg/sites/IDA-GoSync/gdspdd-ai/ship/SitePages/Indicative%20Pricing%202.0.aspx)