

ANNEX B – EXAMPLES OF SAAS SOLUTIONS IN-DEMAND BY SECTORS

1. Pre-schools

The scope of the SaaS solution required by the pre-schools shall include but not be limited to the following:

1.1 **School Management System**

- a) Allow registration of students (eg. front desk registration, e-registration)
- b) Enable centralised reporting and management of, for example students' profiles, teachers' profiles and reporting requirements
- c) Enable management of Individual Student Profile (eg. documentation, checklists and assessments of student's learning, analytics of student's performance)
- d) Send notifications to Parents (eg. automated emails, notification of attendance)
- e) Enable Communities of Practices (eg. use of social network, forums and resource sharing) among teachers
- f) Allow daily attendance-taking (optional automated process)
- g) Enable health information recording (eg. weight and height records, and optional automated process)
- h) Allow centralised accounting (eg. fees, revenue expenses, financial statements)
- i) Allow access via mobile platforms (eg. supporting common OS: Android, iOS, Blackberry).

1.2 **Additional Requirements**

- a) Shortlisted Consortia must work in consultation with MCYS, MOE, and the relevant associations to refine project details.

- b) Details of the proposed solution's integration capability with a 3rd party system (eg. API, or database integration) must be provided.
- c) Pre-school operators may use their discretion to consider other optional software or modules to further enhance operational productivity and streamline processes, such as Human Resource Management (eg. professional development system, performance management system).

2. Private Schools

The scope of the SaaS solution required by the Private Schools shall include but not be limited to the following:

2.1 **School Management System**

- a) Allow registration and management of student information (eg. fee payment, attendance tracking, customer enquiries handling, contracts generation)
- b) Facilitate course administration (eg. tracking of student from enrolment to graduation, course schedules and time-tables)
- c) Facilitate management of course assessments and examinations (eg. capture main and component scores of subjects)
- d) Manage and generate reports for compliance (eg. fee protection scheme, annual returns to the industry regulator)
- e) Manage resources (eg. scheduling of teachers, classes and classrooms)
- f) Alert students and staffs via SMS/email for items requiring attention
- g) Conduct online surveys (eg. collect feedback on courses and teachers).

2.2 **Additional Requirements**

- a) Shortlisted Consortia must work in consultation with CPE and the relevant associations to refine project details.
- b) Shortlisted Consortia could obtain the fee protection file and annual returns templates from the Council for Private Education (CPE) to be incorporated in the management and generation of reports for compliance functionality of the SaaS solution.
- c) Additional fields (eg. 10 fields changes per year) must be catered for in reporting or data formats which may be required by the sector regulator - CPE, in the next 5 years.

- d) Details of the proposed solution's integration capability with a 3rd party system (eg. API, or database integration) must be provided.
- e) Private schools may use their discretion to consider optional software or modules to further enhance operational productivity and streamline processes. Below are some examples of such software/modules:
- Financial Management (eg. accounting, P&L, invoices)
 - Academic Resource Management (eg. textbooks, reference books, teaching aids)
 - Facility and Infrastructure Management (eg. preventive maintenance, upgrading plans or records)
 - Human Resource Management (eg. staff recruitment and management, recognition and reward, training and development)
 - Management of External Agents (eg. agent selection criteria, monitoring and management)
 - Management of Partnerships (eg. terms and conditions, mutual expectations, monitoring and management)
 - Alumni Services (eg. career services, job portal, further education, employment outcome studies)
 - Learning Management (eg. online collaborations, online interactions, discussions, quizzes)
 - Any other modules that satisfy the requirements specified in the Enhanced Registration Framework (ERF) and the EduTrust certification guidelines, which are published in the CPE website.

3. Real Estate

The scope of the SaaS solution required by the Real Estate Agencies shall include but not be limited to the following:

3.1 **Agency Operations (AO)**

- a) Keep records and store documentation centrally
- b) Communicate with SPs via platform
- c) Manage complaints
- d) Control advertisements
- e) Track SPs training records
- f) Manage Commission Receipts and Payouts
- g) Management Information System

3.2 **SalesPersons Operations (SPO)**

- a) Record personal profile
- b) List Properties and transaction information
- c) Store templates for advertisements and sale/lease transactions
- d) Store documents such as prescribed agency agreements (with autofill features)
- e) Archive all documents
- f) List calendar of appointments, renewal, events, with reminders features such as automated email/SMS
- g) Enable web office features
 - Forms download
 - Bulletins
 - Course schedules
- h) Track training of SPs

3.3 Both AO and SPO must be integrated to form a Real Estate Agency Management System (REAMS).

3.4 Additional Requirements

- a) Shortlisted Consortia must work in consultation with the Institute of Estate Agents (IEA), Singapore Accredited Estate Agencies (SAEA), and Singapore Institute of Surveyors and Valuers (SISV) to refine the project details; and to encourage adoption of the SaaS solution(s) among the real estate agencies.
- b) Need to comply with CEA and relevant government regulations (eg. data protection), where applicable.
- c) SaaS solution should allow for seamless integration between the AO and SPO (eg. through OAuth authentication protocol).
- d) For more details on the functional requirements, please request from IDA by emailing to saas_cfc@ida.gov.sg.

4. Public Accountancy

The scope of the SaaS solution required by the Accountancy Firms shall include but not be limited to the following:

4.1 **Practice Management SaaS solution**

- a) Audit process management – facilitates audit engagement to make it more effective and efficient, and in compliance with the prevailing financial reporting and auditing requirements.
- b) Customer relationship management & service level monitoring – manages a company's interactions with customers, clients, and sales prospects.
- c) Resource planning and management - manages people and various company resources by assigning these resources to tasks more efficiently, monitoring work progress, reallocating resources across projects and managing the workload to work smart.
- d) Case management - organising and streamlining of various case information, billing and reports for the accountancy firms.
- e) Add-ons such as tax modules – facilitates tax engagement to make it more effective and efficient, and in compliance with the prevailing tax filing requirements.

4.2 **Additional Requirements**

- a) Shortlisted Consortia must work in consultation with The Institute of Certified Public Accountants of Singapore (ICPAS) to refine the project details, and to encourage adoption of the SaaS solution(s) among the public accountancy firms.
- b) Audit management module must adhere to Singapore Standard on Quality Control (SSQC1). For more details on SSQC1, please refer to <http://www.icpascaa.org.sg/wp-content/uploads/2010/06/SSQC-1.doc>
- c) For more details on the functional requirements, please request from IDA by emailing to saas_cfc@ida.gov.sg.

5. Security

The scope of the SaaS solution required by the Security Agencies shall include but not be limited to the following:

5.1 **Manpower Scheduling Tools**

- a) Schedule work shifts of security officers
- b) Allow security officers to check work schedules online
- c) Allow security officers to submit request to change shifts with another officer

5.2 **Attendance Taking Solution**

- a) Check-in and check-out attendance via online or mobile applications
- b) Calculates total number of hours worked based on check-in/check-out time
- c) Alert supervisors and HQ office if any security officer has not checked-in at work for the allocated shift.

5.3 **Incident Management System**

- a) Allow security officers to submit detailed reports of any incidents that occur during their shift (via online portal or mobile app).
- b) Allow HQ office to monitor the situation at each customer location remotely.

5.4 **Additional Requirements**

- a) Shortlisted Consortia must work in consultation with the relevant industry associations to refine the project details; and to encourage adoption of the SaaS solution(s) among Security Agencies.

6 Cleaning Companies

The scope of the SaaS solution required by the Cleaning Companies shall include but not be limited to the following:

6.1 Restroom Utilisation Monitoring

- a) Detect and monitor traffic in and out of restrooms via motion sensors, and alert Cleaning Companies when cleaners' services is recommended
- b) Make use of restroom utilisation data for Cleaning Companies to facilitate their business decision making process (eg. optimise resource allocation, plan replenishment of toilet supplies, fixtures' maintenance interval etc)

6.2 Manpower Scheduling and Attendance Taking Tool

- a) Allow cleaners to electronically log their attendance and submit proof of service provision on-site
- b) Allow Cleaning Companies to monitor manpower deployment on an electronic dashboard

6.3 Rating and Feedback Tool

- a) Provide restroom users a seamless and quick method of rating a restroom's cleanliness.
- b) Respond to restroom ratings and feedbacks by Cleaning Companies (eg. alert cleaner to check on restroom if unusually high number of poor ratings is received within a short time frame).

6.4 Additional Requirements

- a) Shortlisted Consortia must work in consultation with the Restroom Association of Singapore and the relevant associations to refine the project details; and to encourage adoption of the SaaS solution(s) among the Cleaning Companies.

7 Warehouse Operators

The scope of the SaaS solution required by the Warehouse Operators shall include but not be limited to the following:

7.1 **Warehouse Management System**

- a) Allow deliveries scanning with verifications when receiving cargo
- b) Manage automatic labels printing for received items and enable real-time inventory with allocation transactions
- c) Manage the picking process from orders with kitting support for custom orders
- d) Allow products verifications as they are packed, loaded on transport and shipped out of the warehouse
- e) Automate the Billing Selection process to customers
- f) Support a wide range of wireless radio frequency data collection devices to enable accurate, efficient tracking of any product.

7.2 **Additional Requirements**

- a) Compliance with Advanced Export Declaration (AED) requirements.
- b) Use non proprietary interface to interoperate and connect to other core logistics or existing systems.
- c) Provide conversion services of existing data onto cloud database.
- d) Demonstrate scalability in solution to manage increasing data and operation volumes.
- e) Provide system and user configurable alerts for exceptions and monitoring.

8 Transport Operators

The scope of the SaaS solution required by the Transport Operators shall include but not be limited to the following:

8.1 **Transport Management System**

- a) Manage shipments capacity planning, optimization from orders.
- b) Enable shipment routing by geographic location, road traffic and conditions, schedule and drop off points.
- c) Manage drivers and transport allocation with scheduling.
- d) Enable shipment track and trace by order and electronic proof of delivery.
- e) Enable electronic fleet management not limited to fuel, maintenance and repair, and road safety compliance.
- f) Manage electronic billing and rates

8.2 **Additional Requirements**

- a) Ability to support resource pool sharing between transport operators
- b) Use non proprietary interface to interoperate and connect to other core logistics or existing systems.
- c) Provide conversion services of existing data onto cloud database.
- d) Demonstrate scalability in solution to manage increasing data and operation volumes.
- e) Provide system and user configurable alerts for exceptions and monitoring.
- f) Incorporate traffic and road conditions information for optimized routing.