national treasury

Department:
National Treasury
REPUBLIC OF SOUTH AFRICA

REQUEST FOR INFORMATION

RFI NUMBER RT39-2020

SUPPLY OF ICT DEVICES AND PROVISION OF PROJECT MANAGEMENT FOR SOURCING, PROCURING,DEVELOPMENT,ENHANCEMENT AND DISTRIBUTION OF ELECTRONIC LEARNING TEACHER SUPPORT MATERIALS AT SCHOOLS FOR THE DEPARTMENT OF BASIC EDUCATION

CLOSING DATE FOR SUBMISSION OF INFORMATION IS 18 SEPTEMBER 2020

CLOSING DATE AND TIME IS 16:00

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NATIONAL TREASURY

TRANSVERSAL CONTRACTING

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1. BACKGROUND

1.1. The Office of the Chief Procurement Office (OCPO), within the National Treasury recognises the need to request for information pertaining to the roll out of comprehensive and successful ICT Solution for the Department of Basic Education (DBE) in schools. With more than 400,000 teachers and 12.9 million learners, it is an enormous challenge to prepare South Africa for the Fourth Industrial Revolution.

1.2. Funding, co-ordination and sustainability of such a mammoth undertaking, requires collaboration from all role players, as we aim to bridge the gap between rural and urban schools. Therefore, the South African Government requires input from the education sector regarding feasible solutions.

1.3. Scope:

The Department of Basic Education requires the following services:

1.3.1. The sourcing, procuring, development and enhancement of electronic learner teacher support material (e-LTSM);

1.3.2. Screening, packaging and distribution of e-LTSM;

1.3.3. Supply, support and maintenance of ICT devices, operating system and applications;

1.3.4. Development, support and management of the DBE cloud Portal;

1.3.5. Support and management of connectivity in schools;

1.3.6. Assist DBE with funding models and interaction with various stakeholders with regards to lack of funding.

2. ICT SOLUTION AND CONNECTIVITY

2.1. What would be the best model to roll out e-LTSM for the Department of Education?

2.2. How would your project team ensure teachers are familiar with of the technology and are able to use the resources appropriately for effective learning to take place?

2.3. How would your project team coordinate the loading of content before delivery to schools (inclusive of content and firmware/OS)? How would devices be updated or refreshed without learners taking them to a service provider? Please outline the operation and logistics plan.

2.4. Internet connectivity plays such an important role in schools both in terms of content distribution and the ability to conduct research. How do you propose a sustainable connectivity model to all schools, both urban and rural?

2.5. In your view what would be the minimum broadband speed that would ensure effective learning takes place?

2.6. Taking the previous point into consideration, combined with the fact that the cost of connectivity is prohibitively expensive in South Africa, how would the project team assist DBE to pay the absolute minimum for connectivity?

2.7. The cost of internet access and data is often prohibitively high for most learners in South Africa, would your project team be able to set up an ecosystem that would reduce the need for paid services? Please elaborate.

2.8. How will the deployment of content servers assist in reducing connection cost? Are there alternative models to using a content server?

3. ELECTRONIC CONTENT RESOURCE AND DISTRIBUTION

3.1. All digital content and multimedia must be in line with CAPS and must be signed off by DBE.

3.2. Does your project team have capacity to collect and evaluate the digital and multimedia material for the use in schools?

3.3. Learning material that is available on-line, how would your project team assist in ensuring that this material is evaluated and translated to other languages?

3.4. DBE and provincial Departments of Education have a need for a national education portal to accommodate ±26 000 schools. The web-based portal will be used to distribute content and material.

3.4.1. How long will it take for your company to develop and link the system to all provinces and districts?

3.4.2. How much would it cost to host and manage the portal? What needs to be done to keep the cost as low as possible without impacting on service levels?

3.4.3. Will the system allow for students to make notes while they are engaging with the content and will those notes be retrievable at a later stage? Please elaborate.

3.4.4. How will the portal handle the allocation of teachers and learners to their respective classes, schools, district and province with a national view?

3.4.5. Will the portal be accessible to all teachers, learners and administrators?

3.4.6. How would the teachers be able to record, add and save their own digital content to the system? Would these lessons be freely available for learners?

3.4.7. Will the system be able to support live teaching and broadcasting over the Internet and school network?

3.4.8. Would there be online/built-in assessment for each and every subject or topic?

3.4.9. How will the system assist teachers with administration work and reporting?

3.4.10. Does your system allow for the establishment of digital library, where books and reference material are made available to all students, both on-line and for download to their devices?

3.4.11. Will the system be able to track and measure progress of individual learners throughout a learner's school career (evidence based)?

3.4.12. Will the system be able to generate reports from schools up to national level?

3.4.13. How will your company ensure that all the devices are registered on the portal for record keeping?

3.5. If eBooks are used, what open standards formats would you recommend?

3.6. Besides the use of HTML 5, what other compatibility format do you propose that is interactive and accessible on different platforms?

3.7. A few ecosystems have been identified that can support e-learning solutions (in no particular order) namely:

- Apple iOS
- Microsoft Windows
- Google Chrome
- Google Android
- Open Source Solutions (e.g. Linux platform)

3.7.1. Are there other ecosystems that ought to be considered?

3.7.2. In your view, what are the pro and cons of each ecosystem named above?

3.7.3. In light of low-bandwidth connectivity, the high cost of connectivity, lack of support infrastructure, the number of devices and other budget constraints, what would be most beneficial for the country to deploy and why?

3.7.4. Are there options available for off-line connectivity with caching e.g. web caching content server?

4. HARDWARE

4.1. All ICT related devices supplied to schools must be certified by SITA who engages directly with the OEMs.

4.2. Specifications and Technology Updates are available on SITA's website at http://www.sita.co.za/prodcert.htm. Draft documents are available in the RFC section at the bottom of the page. Please provide feedback.

4.3. Does your company manufacturer or assemble devices (laptops and tablets) in South Africa? If yes:

4.3.1. What is the percentage of local content and production?(SANS 1286:2017)

4.3.2. Can you assemble systems based on Complete Knock Down or Semi Knock Down (ISO 9000)?

4.3.3. How much less/extra would a device cost if it was assembled in South Africa? Please break down per device.

4.3.4. According to your estimation, how many jobs will be created with local manufacturing?

4.4. Crime is a huge challenge in South Africa when it comes to school equipment. How would the service providers assist DBE in deterring thieves from stealing ICT equipment at schools? Please indicate the following:

4.4.1. Besides changing the colour of the learner device and displaying a government logo on the boot-up screen, what other mechanisms can be used to safeguard the devices?

4.4.2. How effective is the use of charging trolleys in preventing theft of devices?

4.4.3. What system could be used to logically lock down/brick the device in the event that it is stolen? What would it cost per device? Please indicate rough estimate costs in terms of an upfront charge.

4.4.4. How would you conduct large scale asset management?

4.4.5. Roughly, how much would a built-in hardware tracking device cost?

4.4.6. What are your recommendations for managing theft and security issues? What are the associated costs thereof?

4.5. Will required hardware accessories (like batteries or power-supplies) be readily available for the duration of the contract?

4.6. For manufacturers who are in control of the composition of the devices, please indicate the Bill of Material in USD for entry level tablets and laptops.

4.7. Please provide cost estimates for device – both local and imported, high-end versus lowest-practical that could be used for a successful sustainable proposal.

4.8. In dealing with support and maintenance for this project, is the service provider committed to assisting Government in a sustainable manner by:

4.8.1. The training and development of youth to provide support and maintenance to schools?

4.8.2. To sponsor repair centres that will be managed by the subcontractors? What do you propose in such a setup?

4.8.3. How will tracking and usage be monitored? How will warranties on devices be tracked?

4.9. In terms of previous experience, how important are:

- device sizes (8” vs 10” vs 12”);

- formats (2-in one, tablet, detachable);
- input devices (keyboard, mouse, touch or stylus);
- various grades & which devices is best suited for their needs and
- what criteria is used

4.10. In your opinion, what is the life expectancy of the devices you propose?

4.11. Please provide recommendation on taking learner devices that gets taken home for homework and after-school studying.

5. CHANGE MANAGEMENT AND TRAINING

5.1. How would change management assist in ensuring effective learning at schools?

5.2. Libraries in communities currently do not support e-learning. How would your project team assist in the creation and development of school and public digital libraries especially in rural areas?

5.3. Do you propose that paper-based material be replaced with electronic books? How would notes be handled?

5.4. How would your company conduct teacher training to enable teachers to teach efficiently and effectively?

5.5. What would your company do to encourage the appropriate use of the ICT devices by teachers and learners?

5.6. How will this tender assist government in creating employment and development of QSE's and EME's?

5.7. When the contract period comes to an end, how do you propose the solution (inclusive of stored material and notes) be transferred to the South African Government who will engage with the next service provider?

6. ABBREVIATIONS

Abbreviations in alphabetical order:

CAPS	Curriculum Assessment Policy Statements
DBE	Department of Basic Education.
e-LTSM	electronic Learner Management System.
EME	Exempt Micro Enterprises.
ICT	Information Communication Technology.
ISO	International Standards Organisation.
OEM	Original Equipment Manufacturers.
OCPO	Office Chief Procurement Office.
QSE	Qualifying Small Enterprises.
RFI	Request for Information.
SITA	State Information Technology Agency.
SANS	South African National Standard.
USD	United States Dollar.