

TERMS OF REFERENCE

SOFTWARE ARCHITECT

FOR THE DEVELOPMENT AND LAUNCH OF THE NATIONAL EDUCATIONAL DIGITAL PLATFORM (E-PLATFORM) UNDER THE MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE

ToR Date of Issuance:	June 20, 2018
Due Date for Applications:	July 6, 2018

PRSM is committed to providing equal employment opportunity without regard to race, color, religion, gender, sexual orientation, national or ethnic origin, age, disability or status as a veteran with respect to policies, programs and activities.

Background

The **Professionals for Reform Support Mechanism (PRSM)** provides human resource support – from managers to technical experts – to critical reform initiatives undertaken by national governmental agencies. PRSM is a multi-donor platform, which improves coordination of donor efforts for greater impact and avoids overlap of donor funding. It does not support routine work of the Government of Ukraine that is normally managed by the civil service. To do this, PRSM:

- **Selects initiatives** based on clearly defined links to reform initiatives;
- Ensures transparent **recruitment** of human resources;
- Manages the **contracting** and payment of human resources;
- Provides financial **reports** for donors;
- **Monitors** initiatives for results.

Reform Initiative

National Educational Digital Platform is a key component of the New Ukrainian School.

The reform was kickstarted by the new Law on Education. According to the Law, new competency-based and values-oriented curricula has to be imposed. Public management will be decentralized, schools and teachers get more autonomy. Teacher role, tasks and responsibilities will be revised. New opportunities for private and other types of schools will be introduced, while teacher training market will be liberalized. New market of modern learning resources, materials and technologies needs to be built virtually from the scratch.

This transition towards universal learning design, competency-based curriculum, enquiry-based learning is hindered by a number of factors. First of all, teachers lack relevant qualifications while supply of modern teacher training programs is limited. The educational content market is dominated by traditional paper publishers. The market of digital learning resources is in its inception.

As a result, parents are not happy with quality of learning resources. 30% of respondents cite 'lack of quality and engaging textbooks' as an important problem of secondary education in a recent survey . 29% are worried with schools providing knowledge which is not relevant to life, and 26% - outdated teaching methods and techniques.

The National Educational Digital Platform will provide teachers with online training, digital learning resources, learning management capabilities. Cutting-edge educational technology and modern content

will help teachers and students to create personalized learning experience through multiple learning profiles, developmental theories and their implications for practice, enable them to assess and employ a variety of teaching strategies to meet individual needs of each and every student.

Position Summary

Software Architect will make core architecture decisions and divide the future platform modules into lots for the tenders, and describe the procurement specifications, controls the compliance of the developed product with the needs of the MoES.

Preferred Qualifications and Skills:

- Currently a senior technical position (e.g. Technical Lead, IT Project Manager, Quality assurance specialist, Software Architect);
- 5+ years of experience making core architecture decisions for a commercial software product or a mission-critical product in a large organization;
- Development Operations experience;
- Extensive experience with MVC frameworks;
- Excellence in reducing unstructured answers into a set of simple and structured decisions;
- Ability to identify and articulate patterns in unstructured and unorganized content;
- Excellent written communication skills including architecture diagrams, data flows and system component diagrams;
- Familiarity with educational opensource software, environments, standards (Google Apps for Education, Moodle, LRN, Open ACS, Sakai, Kolibri, IMS LTI, Tin Can, xAPI) is a plus;
- Working English is a plus.

Indicative duties and responsibilities:

- Applies modern software design patterns to product requirements. Helps avoid poor product design decisions;
- Defines data structures, object models, algorithms to solve high-value problems;
- Maps modular solutions using existing open source components and cloud services;
- Makes decisions that reduce scope in favor of simplicity and cost-efficiency;
- Communicates technical decisions to the team and developers;
- Assesses product's capital and operational expenditures, total development and maintenance cost;
- Approves the technical descriptions of the product for solicitation. Helps select right vendor via open tender;
- Bootstraps the development process. Provides active daily feedback to the team in regard to Important Technical Decisions;
- Ensures that the product developed meets the vision and concept adopted by the MoES.

Contract Duration and Timing

Part-time position based in Kyiv. The total duration of the consultancy is expected to be 1 year (6+6 months) with possible extension.

To apply

Submissions must be prepared in English and delivered electronically **by 17:00 Kyiv time on July 6, 2018** to the following address: prsm@fsr.org.ua. We do not welcome unsolicited phone calls.

All submissions must include:

- 1) Applicant's CV;
- 2) Applicant's brief letter of interest indicated related experience and achievements.

Please ensure to state **Software Architect** in the e-mail subject line.

Applications received after the indicated deadline or without letter of interest will not be reviewed and considered.

Shortlisted candidates will be contacted after July 10, 2018.