

EOI No.....01/EDP

Website : <u>www.bseh.org.in</u>

Dated: 25/04/2025

Email: ascc@bseh.org.in



BOARD OF SCHOOL EDUCATION HARYANA, BHIWANI

Expression of Interest (E.O.I.) for

Migration of Data and Web Applications to Cloud Infrastructure with API Development, Support, and Security Enhancements

To Secretary, Board of School Education Haryana, Bhiwani - 127021 (Ph.: 01664- 244171-176)



NOTICE

The Board of School Education Haryana (BSEH), Bhiwani, invites Expression of Interest (EOI) from reputed and experienced vendors/firms for the **migration of Data and Web Applications to Cloud Infrastructure with API Development, Support, and Security Enhancements**. The Board of School Education Haryana, Bhiwani a statutory body responsible affiliating schools, prescribing of relevant syllabi, text-books, conducting examinations, declaration the results and issuing of certificates to the students as per schedule. The firm should have experience of similar type of project of the Central Govt./ State Govt./ University / Board/ PSU Department with improvement of the quality and process management of the organization.

Critical Dates	
Subject	Date/Time
EOI Online Submission Start Date	25/04/2025
EOI Online Submission End Date	09/05/2025
EOI Opening Date	13/05/2025

Any amendment/correction in the EOI Document will be done by the Board Authority through <u>http://etenders.hry.nic.in</u> & at www.eprocure.gov.in. Prospective bidders are requested to regular visit/check the <u>Board's website www.bseh.org.in</u>.

EOI submitted through offline mode or in incomplete shape or beyond the stipulated period shall be summarily rejected. The Competent Authority of the Board reserves the right to accept or reject any or all EOI without assigning any reason thereof. Conditional EOI will not be accepted. EOI shall be opened by the authorized committee.

For any query/clarification/difficulty regarding tendering process flow, please contact us on:

Address:

A.S.(Computer Cell) Board of School Education Haryana Bhiwani-127021 Website: www.bseh.org.in E-mail: ascc@bseh.org.in Mob. :9416383327, 9729465400

Secretary



Inviting Expression of Interest for migration of Data and Web Applications to Cloud Infrastructure with API Development, Support, and Security Enhancements.

BSEH aims to migrate this data and host web applications, currently developed in Java with a MySQL database, on cloud infrastructure. Additionally, BSEH intends to create APIs to facilitate data sharing with external agencies.

Objective

The purpose of this EOI is to invite responses from interested vendors or firms to provide suggestions on:

- The most suitable cloud infrastructure for BSEH's requirements.
- Estimated costs of migrating to the cloud, including storage and computational resources.
- Comparative benefits of hiring cloud infrastructure vs. utilizing dedicated servers.
- Recommendations on setting up secure and efficient API services for data sharing.

Scope of Work

The scope of work includes, but is not limited to:

1. Data Migration:

Migration of approximately 1 TB of student-related data (photos, signatures, examination records) from local servers to the cloud, ensuring integrity and security during the transfer process.

2. Cloud Hosting:

Hosting of existing Java-based web applications on cloud infrastructure with MySQL database support. The infrastructure should support high availability and scalability.

3. API Development:

Developing secure APIs to facilitate data sharing with external agencies, ensuring compliance with relevant data protection regulations.

4. Security Measures:

Implementing robust security protocols to protect sensitive student data, including encryption, multi-factor authentication, and role-based access control. The vendor should ensure compliance with industry standards and data privacy laws (e.g., GDPR, if applicable).



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5. Backup and Disaster Recovery:

Providing a comprehensive backup and disaster recovery plan. The cloud infrastructure should include automated, periodic backups and quick recovery mechanisms in case of data loss or system failure, ensuring minimal downtime.

6. Support and Maintenance:

Offering ongoing support and maintenance services post-migration, including monitoring, troubleshooting, and ensuring optimal performance of the hosted applications. The vendor should provide a Service Level Agreement (SLA) detailing response times and service guarantees.

7. Cost Analysis and Recommendations:

Providing a comparative analysis of cloud service providers (e.g., AWS, Google Cloud, Azure) and their cost structures. Recommendations on the most suitable cloud infrastructure (dedicated, shared, or hybrid) for the department's needs should be included.

8. Security Audits and Compliance:

Ensuring the cloud environment undergoes regular security audits to identify vulnerabilities and ensure compliance with cybersecurity best practices.

9. Project Management and Training:

Developing a detailed project management plan with timelines for each phase of the migration. The vendor is also expected to provide training to the Computer Cell staff on managing the new cloud infrastructure and APIs.

10. Alternative Development:

In case any of the hosted web applications are not feasible for migration due to technical limitations or compatibility issues, the selected firm will be responsible for developing equivalent web applications as per BSEH's specifications and requirements.



Other Terms & Conditions: -

- 1 The vendor will identify and provide integration of new software with existing software or system, if any, wherever required. Information regarding existing software will be provided to the Vendor by BSEH when requested by the Vendor or otherwise.
- 2 The Vendor will be responsible for migrating all required data from database of legacy software, if any, to the database for new software. The migration should be done through scripts and should be a repeatable exercise, as it may be carried out for acceptance testing and later again for final implementation. The new software and legacy software will run in parallel for a period of time before use of legacy software is stopped completely. For modules where no legacy software is available, need for retrospective conversion of information has to be identified by the vendor. The vendor must include any special programs or software design. The database maintained by vendor in the new software. There should be personnel deputed by the vendor to oversee conversion of the legacy data and or retrospective data.
- 3 In case resources are available, BSEH may like to run a system test cycle after the Vendor has performed system testing. The vendor has to make the System Test Plan and Cased used by it for system testing available to BSEH. The Vendor must remove and defects found by the BSEH project team during system testing in maximum two days time.
- 4 BSEH project team would like to run at least two cycles of acceptance testing and will fully participate in implementation efforts by the Vendor. It will aid the Vendor in ensuring that the software developed by the Vendor is tested and the end-users are trained to use it effectively and efficiently within 15 days of acceptance of award of contract without any extra payment or cost.
- 5 The vendor will depute one service engineer having knowledge in the relevant field.
- 6 The Initial allotment of work for one year after the date of award of contract in the first instance which can be extended for next three years depending on the satisfactory performance/ Services provided by the firm/ Company.
- 7 Administrative control rests solely with the Board, while developmental control is a collaborative effort with the IT cell. All modifications, updates, and new software/application modules are meticulously logged and retained for three months, ensuring transparency and accountability. This framework not only centralizes decision-making for strategic direction but also promotes efficient collaboration with the IT department, facilitating streamlined and transparent software development practices.
- 8 Implementing the cloud service in a government office can vastly enhance operational efficiency and transparency. By leveraging cloud infrastructure, the system ensures scalability, accessibility, and data security, crucial for managing sensitive government information. Integration with various departments and



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functionalities streamlines processes, reducing bureaucratic bottlenecks. Real-time data analytics empower decision-makers with insights for more informed governance.Furthermore, cloud-based systems offer cost-effective solutions, eliminating the need for extensive infrastructure investments while promoting remote work capabilities, ultimately fostering a more agile and responsive government apparatus. To ensure that the cloud server and its domain provided by the vendor become the property of the board and are technically.

- 9 The firm must be ISO 27001 certified, ensuring compliance with the highest standards of information security management.
- 10 In addition to the server and firewall security solution, the tender condition stipulates that the selected vendor must include a comprehensive technical support package at no additional cost for duration of three years. This support should encompass troubleshooting, maintenance, software updates, and any necessary replacements to ensure uninterrupted operation of the server infrastructure. The vendor is expected to outline the scope of technical support services offered, including response times, escalation procedures, and service level agreements, to guarantee the firm's continued satisfaction and operational efficiency throughout the support period.
- 11 The developed application/software by the firm shall become the exclusive property of the Board upon completion of the project. Following the culmination of all tasks, the firm is obligated to deliver the application/software along with all associated database files to the Board, accompanied by comprehensive documentation. This transfer ensures seamless integration and continued maintenance of the system by the Board, fostering technical effectiveness and facilitating future enhancements or modifications as deemed necessary.
- 12 The Chairman of BSEH will be final authority in evaluating and approving the selection of the firm/vendor.