

---

---

## **Terms of Reference (ToRs) for Hosting of PSEB Web Portal**

---

---

Version 1.0

December 2021

**PAKISTAN SOFTWARE EXPORT BOARD**  
MINISTRY OF INFORMATION TECHNOLOGY  
GOVERNMENT OF PAKISTAN

## ToRs for the Selection of Web Hosting Provider for PSEB Web Portal

### Table of Contents

1.	PAKISTAN SOFTWARE EXPORT BOARD (G) LTD. AN INTRODUCTION .....	3
2.	MAJOR FUNCTIONS OF PSEB .....	3
3.	INTRODUCTION TO THE PROJECT .....	3
4.	PURPOSE OF THE DOCUMENT .....	4
5.	HOSTING REQUIREMENTS .....	4
5.1	General Requirements .....	4
5.2	Security Requirements .....	4
5.3	Hardware Requirements .....	5
5.4	Network/Bandwidth Requirements .....	5
5.5	Software Requirements .....	5
5.6	Scalability: .....	6
5.6.1	Horizontal Scaling (for Cloud Hosting) .....	6
5.6.2	Vertical Scaling (for Data Center Hosting) .....	6
6.	EVALUATION CRITERIA .....	6
6.1	Mandatory Criteria .....	7
6.2	Evaluation Criteria .....	8
6.3	Financial Bid Evaluation Criteria .....	9
7.	CORRUPT OR FRAUDULENT PRACTICES BY BIDDER .....	9
8.	SUBMISSION OF BIDS: .....	9
8.1	Withdrawal of Bid .....	10
8.2	Rejection of Bid. ....	10
8.3	Compliance to the Instructions .....	10
8.4	Performance of Bidder .....	10
9.	CORRUPT OR FRAUDULENT PRACTICES BY BIDDER .....	10
10.	GENERAL TERMS AND CONDITIONS. ....	11
11.	BIDDER'S QUERIES .....	11
12.	PRE-BID MEETING .....	11
13.	POINT OF CONTACT. (e-mails) .....	11
14.	BID SUBMISSION AND OPENING ADDRESS. ....	11
	Annexure-I : Financial Proposal for Hosting Platforms .....	12

## ToRs for the Selection of Web Hosting Provider for PSEB Web Portal

### 1. PAKISTAN SOFTWARE EXPORT BOARD (G) LTD. AN INTRODUCTION

Pakistan Software Export Board (PSEB) is a Guarantee Limited Company with a Board of Directors comprising representatives from within the Government, industry associations and the private sector. PSEB is Government-owned, and is mandated to promote Pakistan's Information Technology (IT) industry.

PSEB's many support programs aim to help Pakistani companies and professionals to obtain a greater share of the domestic as well as the global IT and IT-enabled services marketplace.

### 2. MAJOR FUNCTIONS OF PSEB

Since its inception in 1995, PSEB has facilitated the overall development of Pakistan's IT industry in general and the export of software as well as IT-enabled services in particular. Its major functions are outlined below:

- Formulate and implement policy frameworks and incentive packages for the IT industry.
- Act as an interface between the Government and the IT industry.
- Interact with relevant regulatory bodies to develop an enabling infrastructure.
- Conceptualize and execute projects to develop the IT industry.
- Improve the standard of IT education.
- Resolve the IT industry's problems/concerns with relevant government quarters.
- Answer overseas companies' queries or direct them towards appropriate channels of communication.
- Maintain the local IT industry's competitiveness in the international market by creating an enabling domestic environment.
- Bring IT companies together under one platform.
- Market Pakistan as a viable IT destination.
- Monitor developments within the global IT sector and formulate/implement policies to adapt to changing environments.
- Accelerate the growth of the domestic IT sector.

### 3. INTRODUCTION TO THE PROJECT

PSEB intends to hire a web hosting services provider to provide efficient & reliable managed hosting services for the upcoming Industry Web Portal and the PSEB website.

The international revolution has prompted many developments in all industries. With new media and high-speed networks, expectations of consumers worldwide have increased. Information is required in real-time for making effective business decisions. This trend is prevalent not only in the private sector, but also in public sector organizations. The active role of governments in delivering content as well as online services via internet and through other electronic media is enabling highly efficient process and rapid execution of tasks.

Keeping in view the roles and objectives of PSEB for promoting IT in Pakistan and attracting foreign investment in this sector, PSEB has developed a new web portal and revamped its website to deliver better services to its clients. This web portal besides imparting most recent information about the Pakistani IT industry will also provide many new and interesting features.

## ToRs for the Selection of Web Hosting Provider for PSEB Web Portal

### 4. PURPOSE OF THE DOCUMENT

The purpose of this document is to denote/specify the deliverables associated with this project and the procedure/approach, which will be followed by PSEB to assess, evaluate and select the firm/company for web hosting services. This document also illustrates the requirements and the conditions, which shall be adhered to fulfill and qualify for the stipulated task (hosting Industry Web Portal and PSEB Websites).

The selected company will be required to provide dedicated managed portal/web-hosting services for a period of one year, two year or three years based on better pricing with subsequent extension for further one-year subject to satisfactory performance.

### 5. HOSTING REQUIREMENTS

Following are the hosting requirements for the Web Portal.

#### 5.1 General Requirements

- a. 3 Tier Server Architecture and Tier –3 data center or above.
- b. Mirrored Server, Back-up & Disaster Recovery at a different site, DNS Hosting.
- c. Managed cloud based-hosting and associated services like NFS, Database etc..  
The hosting provider will be responsible for platform configuration, schedule backups, disaster recovery and optimization of the configuration from time to time as per required by the application to run smoothly and to make sure the high availability of the database.
- d. Web-based portal performance monitoring tools.
- e. Web-based service management tools like cPanel or Plesk Panel.
- f. Tier-I bandwidth connectivity as per portal requirements.
- g. SLA with 99.9% uptime and infrastructure guarantee.
- h. CDN Integration on server level or a third-party service i.e., Cloudflare. This will be hosting service provider's responsibility to arrange required licensing, if required.
- i. SSH and SFTP Access to root user to all machines.
- j. All application and database server will be interacting each other through private network IPs rather than public IPs.
- k. Application Load balancer for 3 tier architecture.
- l. SSL Certificates for the portal.
- m. SMTP service to deliver emails to internal and external customers of the portal.
- n. 24/7 Technical Support of the hosting infrastructure.

(Optional) Email Service incl. SMTP management, API Interfaces and IP Pooling (to avoid spamming) with detailed tabular and graphical reporting i.e., Delivery Status, Unsubscribes etc. (If a paid solution is quoted then the price must be mentioned separately)

#### 5.2 Security Requirements

- a. Virus and Malware Protection
- b. IPS (DoS/DDoS Mitigation) – Network + Server level
- c. Spyware Control

## ToRs for the Selection of Web Hosting Provider for PSEB Web Portal

- d. Web Server Security Protocols
- e. Database Protection
- f. Server-Side Scripting Protection
- g. Firewall Protection
- h. To keep the OS and other platform applications updated with security patches as per the requirements of the Application vendor.

### 5.3 Hardware Requirements

Multiple options of Virtual Machines (VMs) to host PSEB Portal either on Cloud Platform or in Data Center environment are listed in below **table-1**. The procuring agency requests proposals for both platforms, i.e., Cloud Platform as well Data Center environment. This will be bidders' choice to apply for either one or both platforms. The procuring agency will decide the hosting platform and number of VMs as per its requirements.

Please provide costing of hosting solution as per Annexure-I. The costing sheet shall only be the part of financial proposal and shall not be disclosed in technical proposal in any way failing which will lead to the disqualification of the bid.

Table#1

VM Options	vCPU's	vCPU Speed (Minimum)	RAM	HD/Storage
1	02	2.0 GHz	4 GB	100 GB SSD
2	04	2.0 GHz	4 GB	100 GB SSD
3	04	2.0 GHz	8 GB	100 GB SSD
4	04	2.0 GHz	8 GB	200 GB SSD
5	04	2.0 GHz	16 GB	200 GB SSD
6	04	2.0 GHz	32 GB	200 GB SSD
7	06	2.0 GHz	16 GB	500 GB SSD
8	06	2.0 GHz	32 GB	500 GB SSD
9	08	2.0 GHz	16 GB	200 GB SSD
10	08	2.0 GHz	32 GB	500 GB SSD
11	1 TB SATA or Object Storage			
12	One CUDA capable GPU for AI/BI dedicated VM			
13	One Load Balancer			

### 5.4 Network/Bandwidth Requirements

- a. Multi-homing, tier-I and scalable bandwidth starting from 10 Mbps.
- b. Each storage volume must have minimum throughput of 300 MB/s.

### 5.5 Software Requirements

The following is the set of minimum software requirements to support portal hosting. This will be bidder's/hosting service provider responsibility to install the required software on respective VMs and make it ready to use.

## ToRs for the Selection of Web Hosting Provider for PSEB Web Portal

Sr. #	Server Type	Software Required
1	Application Server.	<ul style="list-style-type: none"> <li>• Ubuntu (latest/ stable version)</li> <li>• Nginx (latest/ stable version)</li> <li>• PHP-FPM (latest/stable version), PHP 7.3+ including basic + additional support libraries like Curl, Mastering, MCrypt, gd, libimage, etc.</li> <li>• Redis/Memcached Server for caching</li> <li>• GlusterFS Client or its equivalent on cloud (in case service provider managed NFS is not used) including its dependencies.</li> </ul> <p>Note:-The version of each of the applications listed above will be finalized at the time of rollout and in consultation with the Portal Developer.</p>
2	Database Server	<ul style="list-style-type: none"> <li>• MariaDB (latest stable version)</li> <li>• Redis/Memcached Server for caching</li> </ul>
3	AI/BI Server	<ul style="list-style-type: none"> <li>• Ubuntu 18 (Stable version)</li> <li>• Nginx</li> <li>• Elastic Stack – Kibana, Elasticsearch and Logstash</li> <li>• Redis/Memcached Server for caching</li> </ul>
<p>In case service provider doesn't have managed NFS service then <b>GlusterFS Server including its dependencies</b> will be required.</p>		

### 5.6 Scalability:

#### 5.6.1 Horizontal Scaling (for Cloud Hosting)

Autonomous horizontal scaling will be required in peak hours or in case of high traffic without any manual or human intervention based on the parameter configured.

#### 5.6.2 Vertical Scaling (for Data Center Hosting)

Vertical scaling will be required through manual intervention as per PSEB requirement during any campaign or peak hours.

Whatever the PSEB will opt the solution depending upon its efficiency, cost effectiveness and other requirements.

## 6. EVALUATION CRITERIA

The evaluation shall be carried out keeping in view the following terms of technical and financial weightages:

1. The weightage of Technical Proposal =70%.
2. The weightage of Financial Proposal = 30%

## ToRs for the Selection of Web Hosting Provider for PSEB Web Portal

### 6.1 Mandatory Criteria

S. No.	Requirement	Marks	Documents/Evidence Required
1	Valid and active Income Tax Registration of bidding company.	Mandatory	The firms shall provide copy of valid and active NTN certificate
2	Valid and active sales tax registration of each of the bidding company.	Mandatory	The firms shall provide copy of valid and active Sale Tax Registration certificate
3	Details of Data Centers locations, both Primary and DR site.	Mandatory	
4	Datacenter should be tier-III or tier-IV compliant or certified. Attach reference document.	Mandatory	
5	A certificate that the bidder is not blacklisted by any Government Department, or public sector organization in Pakistan.	Mandatory	The bidder shall provide undertaking on Rs. 100 stamp papers.
6	Service Level Agreement (SLA) with 99.9% uptime	Mandatory	
7	Mirrored Server, Back-up & Recovery, DNS Hosting	Mandatory	
8	Managed Services	Mandatory	
9	<p><b>Security Feature</b></p> <ol style="list-style-type: none"> <li>1. SPAM Protection</li> <li>2. AntiVirus Protection</li> <li>3. IPS (DoS/DDoS Protections)</li> <li>4. Spyware Control</li> <li>5. Web Server Security</li> <li>6. Content Security</li> <li>7. Database Protection</li> <li>8. SQL Injections Protection</li> <li>9. Server Side Scripting Protection</li> <li>10. Protection against vulnerabilities found in the analysis as well as the following: <ul style="list-style-type: none"> <li>▪ IP Spoofing</li> <li>▪ Session hijacking</li> <li>▪ URL Manipulation</li> <li>▪ Cross Site Scripting</li> <li>▪ Directory Listings</li> <li>▪ Customized error messages</li> </ul> </li> </ol>	Mandatory	



## ToRs for the Selection of Web Hosting Provider for PSEB Web Portal

10	Web Base Network Monitoring Tools	Mandatory	
11	Web based service management tools like Cpanel	Mandatory	
12	24/7 Technical Support	Mandatory	

### 6.2 Evaluation Criteria

Technical evaluation criteria of company's proposal are as follows. Qualifying marks=70%

Sr #	Description	Max. Score	Marks Allocation	
1.	Firm/Bidder Profile (copy of company registration)	10	Years of registered establishment of cloud services (01 mark for each year)	10
2.	Financial Strength Audited accounts of last 03 years shall be part of the proposal as evidence	10	Annual turnover up to PKR 50+ mil	10
			Annual turnover PKR 31-50 mil	07
			Annual turnover PKR 10- 30 mil	05
3.	Transfer of knowledge	05	Training for the designated staff of PSEB to comprehensively understand the hosting platform and communicate effectively in case an issue arises.	05
6.	Vendor Lock-in & Exit terms.	10	Provide policies around data access, data location and jurisdiction, confidentiality, and usage /ownership rights. Policies on how to transfer data if a client decides to exit.	10
7.	Disaster recovery (Runbooks, Technical Recovery Procedures(TRPs), IT DR Plans, BCP etc. shall be in place. A copy of such documents shall be provide with proposal)	10	Provide disaster recovery provisions, processes and ability to support data preservation, recovery time, scheduling, backup, restore, integrity checks, etc.	10
8.	List and contact details of corporate clients of hosting services.	10	List of corporate clients with contact details of FoC. Feedback of the clients will be a key point of evaluation process.	10
9.	Certifications in InfoSec, Cloud/Data Center, etc. (Like ISO27001:2013)	20	One certification =10 mark	10
13.	Technical Support and SLA at International Standards  24/7/365 technical support facility strictly compliant to SLA. Market feedback will be part of this evaluation	25	Incident response time	05
			Avg. problem resolution time	05
			Service availability in each calendar month	05
			Escalation Matrix for support	05
			Downtime vs. %age rebates shall be mentioned with clarity.	05
<b>G. Total</b>		<b>100</b>		



## ToRs for the Selection of Web Hosting Provider for PSEB Web Portal

### 6.3 Financial Bid Evaluation Criteria

The financial bids of only technically qualified bidders will be opened. The pricing shall include all applicable taxes.

The evaluation of financial bids will be calculated as follows:

- The weightage of financial proposal is 30% in total score.
- The financial weightage will be calculated by the formula as given below:  
= (lowest bid/bid offered) \*30

The score achieved by a bidder will be aggregated as follows:

Total score obtained by a bidder = Technical weightage + Financial weightage

The contract shall be awarded to the bidder who achieved the maximum points from Total Score and shall be considered a **Most Advantageous Bidder**.

Please use Annexure-I to submit financial proposal. Following terms shall be taken care while drafting financial proposal:

- Cost of hosting service for 1, 2 and 3 years taking into account the discounts for long-term service agreement.
- Payment will be made on quarterly basis.
- Detailed breakdown of all the costs.
- Financial Proposal should include all taxes cost (cost mentioned in proposal will be considered final cost inclusive of all taxes)

### 7. CORRUPT OR FRAUDULENT PRACTICES BY BIDDER.

Any type of corrupt or fraudulent practices or provision of any false information by the bidder will lead to disqualification of the bid and confiscation of the bid security regardless of the price and quality of the product.

### 8. SUBMISSION OF BIDS:

- a. A single stage two envelope bidding process will be followed. The technical and financial bids shall be in English language and must be provided in separate sealed envelopes bearing “**Tender for Web Hosting Requirements to Host PSEB Web Portal**” The technical bid envelope should be marked with “**Technical Proposal for Web Hosting Requirements to Host PSEB Web Portal**” containing technical specifications only (without prices) along with soft copy of the proposal in USB drive. The financial proposal shall be marked with “**Financial Proposal for Web Hosting Requirements to Host PSEB Web Portal**” containing financial proposal, soft copy in USB drive and the earnest money equal to 2% of the highest price of total amount quoted against option A+C or option B+C as detailed under Annexure-I. Bids must be delivered through courier or dropped at the PSEB office. The earnest money in the shape of Bank Draft / Pay Order shall be in the favor of “**Pakistan Software Export Board**”.
- b. The complete Bid documents shall be submitted on or before **December 24, 2021, at 03:00 pm** Technical bids only will be opened on the same day at 03:30 pm at below mentioned address in the presence of vendors/bidders or their authorized representatives who desires to attend the bid opening session. The financial bids will be opened only of those bidders who qualifies in technical proposals evaluation. The opening of financial bids will be notified separately once technical evaluation has been completed. Please note that submission date and time shall be strictly adhered, and it will be bidders’ responsibility to ensure the submission of bid at given date and time.

## ToRs for the Selection of Web Hosting Provider for PSEB Web Portal

- c. Prices quoted must remain valid for acceptance up to 90 days from the date of its opening. Quoted price should be in Pak Rupees and inclusive of all applicable taxes.
- d. Prices quoted without any tax remarks will be treated as inclusive of all applicable taxes. Any change in Government duties or taxes shall be borne by the successful bidder.
- e. The bidder selected to award the contract shall have to submit 5% of total amount as Performance Bond. The performance bond shall be in the shape of Bank Guarantee/Bank Draft / Pay Order in the favor of “Pakistan Software Export Board”
- f. The representative of the bidder shall bring an authority/nomination letter on company’s letterhead for attending the financial bid opening.
- g. The representative of the bidder shall bring an authority/nomination letter on company’s letterhead for attending the financial bid opening.

### **8.1 Withdrawal of Bid.**

- a. A bidder may withdraw the bid prior to the deadline for submission of bid as prescribed in these tender documents.
- b. The bid security will be forfeited if a bidder withdraws the bid after the deadline of bid submission or during the period of bid validity or in the case of a successful bidder fails to sign/accept the Purchase Order/Contract.

### **8.2 Rejection of Bid.**

- a. Bids not sealed as per the instructions in the bidding documents.
- b. Bid security has not been submitted as per the relevant clause.
- c. Incomplete, conditional, or optional bids will be rejected forthwith.
- d. Bids received after due date & time will not be accepted.
- e. Bids failing to meet the eligibility / evaluation criteria.
- f. Any noncompliance to the terms and conditions of bidding documents.
- g. Company shall be disqualified if financial figures are mentioned in the technical proposal.

### **8.3 Compliance to the Instructions.**

- a. Quoted rates shall include all applicable GoP taxes.
- b. No cutting / overwriting of the offered prices will be accepted.
- c. Strict Compliance of bidding documents, given Specifications and eligibility / qualification criteria.

### **8.4 Performance of Bidder.**

- a. In case of any poor performance by the selected bidder, PSEB reserves the right to issue Poor Performance Certificate to bidder. PSEB reserves the right to confiscate the bid security/performance bond of the bidder in case of three poor performance certificate, and bar the bidder from participation in future procurements of PSEB.

## **9. CORRUPT OR FRAUDULENT PRACTICES BY BIDDER.**

Any type of corrupt or fraudulent practices or provision of any false information by the bidder will lead to disqualification of the bid and confiscation of the bid security regardless of the price and quality of the product.

## ToRs for the Selection of Web Hosting Provider for PSEB Web Portal

### 10. GENERAL TERMS AND CONDITIONS.

- a. In case the selected bidders do not accept the Purchase Order/Contract, their bid security will be confiscated, and a poor performance certificate will be issued to vendor.
- b. In case there is a difference between the unit price and total price for any items quoted in the bid, the unit price of that/those items shall prevail and decision of PSEB in this regard shall be final.
- c. Total Prices must conform to the individual prices of all the items quoted and delivered.
- d. Participating vendors are requested to avoid from all overt & covert activities that shall create any doubt that leads towards ambiguity in the tendering process and tender opening session.

### 11. BIDDER'S QUERIES.

Any queries by the Bidders must reach to Manager Administration & HR PSEB, at the already mentioned address, at least three (3) working days before the deadline of the bid submission, otherwise PSEB will not be liable to respond.

### 12. PRE-BID MEETING.

A pre-bid meeting will be held on December 16, 2021 at 3:00 pm to address the queries, if any, of the prospective bidders. Please use following link to join meeting:

<https://us06web.zoom.us/j/88082938567?pwd=Y0NYbkJJWUJFS2pvVkI4MjhUVnlkZz09>

### 13. POINT OF CONTACT. (e-mails)

For Admin query To: [rarif@pseb.org.pk](mailto:rarif@pseb.org.pk)

For Technical query To: [sbilal@pseb.org.pk](mailto:sbilal@pseb.org.pk)

### 14. BID SUBMISSION AND OPENING ADDRESS.

**Manager Administration & HR**  
Pakistan Software Export Board  
2<sup>nd</sup> Floor, Evacuee Trust Complex, F-5/1,  
Islamabad

**ToRs for the Selection of Web Hosting Provider for  
PSEB Web Portal**

**Annexure-I : Financial Proposal for Hosting Platforms**

**A. Requirements for Hosting on Cloud Platform**

VM Options	vCPU's	vCPU Speed Minimum	RAM	HD/Storage	Cost		
					01 Year	02 Years	03 Years
1	02	2.0 GHz	4 GB	100 GB SSD			
2	04	2.0 GHz	4 GB	100 GB SSD			
3	04	2.0 GHz	8 GB	100 GB SSD			
4	04	2.0 GHz	8 GB	200 GB SSD			
5	04	2.0 GHz	16 GB	200 GB SSD			
6	04	2.0 GHz	32 GB	200 GB SSD			
7	06	2.0 GHz	16 GB	500 GB SSD			
8	06	2.0 GHz	32 GB	500 GB SSD			
9	08	2.0 GHz	16 GB	200 GB SSD			
10	08	2.0 GHz	32 GB	500 GB SSD			
11	1 TB SATA						
12	One CUDA capable GPU for AI/BI dedicated VM						
13	One Load Balancer						
<b>Total</b>							

**AND/OR**

**B. Requirements for Hosting in Data Center Environment**

VM Options	vCPU's	vCPU Speed Minimum	RAM	HD/Storage	Cost		
					01 Year	02 Years	03 Years
1	02	2.0 GHz	4 GB	100 GB SSD			
2	04	2.0 GHz	4 GB	100 GB SSD			
3	04	2.0 GHz	8 GB	100 GB SSD			
4	04	2.0 GHz	8 GB	200 GB SSD			
5	04	2.0 GHz	16 GB	200 GB SSD			
6	04	2.0 GHz	32 GB	200 GB SSD			
7	06	2.0 GHz	16 GB	500 GB SSD			
8	06	2.0 GHz	32 GB	500 GB SSD			
9	08	2.0 GHz	16 GB	200 GB SSD			
10	08	2.0 GHz	32 GB	500 GB SSD			
11	1 TB SATA						
12	One CUDA capable GPU for AI/BI dedicated VM						
13	One Load Balancer						
<b>Total</b>							

## ToRs for the Selection of Web Hosting Provider for PSEB Web Portal

### C. Software Requirements On All Servers (Option-C is must requirement whichever the option (A or B) PSEB opt to procure.

Sr. #	Server Type	Software Required	Cost		
			01 Year	02 Years	03 Years
01	Application Server	<ul style="list-style-type: none"> <li>• Ubuntu (latest/stable version)</li> <li>• Nginx (latest/stable version)</li> <li>• PHP-FPM (latest/stable version), PHP 7.3+ including basic + additional support libraries like Curl, Mastering, MCrypt, gd, libimage, etc.</li> <li>• Redis/Memcached Server for caching</li> <li>• GlusterFS Client or its equivalent on cloud (in case service provider managed NFS is not used) including its dependencies.</li> </ul>			
02	Database Server	<ul style="list-style-type: none"> <li>• MariaDB (latest stable version)</li> <li>• Redis/Memcached Server for caching</li> </ul>			
03	AI/BI Server	<ul style="list-style-type: none"> <li>• Ubuntu 18 (Stable version)</li> <li>• Nginx</li> <li>• Elastic Stack – Kibana, Elasticsearch and Logstash</li> <li>• Redis/Memcached Server for caching</li> </ul>			
In case service provider doesn't have managed NFS service then <b>GlusterFS Server including its dependencies</b> will be required.					
<b>Total</b>					

**Important Note:-**

Price shall include the cost of software/ applications (if any), installation, configuration as per portal requirement, updates and support during the tenure of the service agreement)