TENDER DOCUMENTS

For Maintenance, support and development of Mobile Application of Pakistan Meteorological Department (IOS & Android)

No. PC/PMD-Mobile-App/26-27

Pakistan Meteorological Department
Sector H-8/2,
Islamabad,
November, 2026

Government of Pakistan
Pakistan Meteorological Department
Sector H-8/2, Islamabad

INVITATION TO BID

Bids are invited from reputable IT firms/ Companies/ Service Providers/ Contractors/ Joint Ventures/ Government/ Semi Government Organizations/ Suppliers/ Vendors/ duly registered with relevant Government Agencies and active tax payers for Maintenance, Support and Development of Mobile Application (IOS & Android) **through PPRA EPADS 2.0** having relevant profile and meeting the criteria as mentioned in the bidding documents.

S. No	Items Name	Closing Date & Time	Bid Opening Date & Time
1.	**Maintenance, support and development of Mobile Application of Pakistan Meteorological Department (IOS & Android)**	08-12-2026 at 10:30PST	08-12-2026 at 11:00PST

Terms & Conditions:

i. Method of Single Stage – two envelope procedure under Rule 28(b) of the Public Procurement Rules, 2026 shall be followed. Bidding documents having detailed specifications are available free of cost at the website https://weather.gov.pk, PPRA EPADS https://pa.epads.gov.pk as well as https://epms.ppra.gov.pk.

ii. Detailed bidding document can be obtained from PMD and PPRA Websites and proposals shall be submitted through EPADS 2.0 latest by 08-12-2026 till 1030 hrs. The same will be opened by the constituted committee at 1100 hrs. on the same day.

iii. Competent Authority reserves the right to reject or accept any or all the proposals without assigning any reason at any time under PPRA Rules.

iv. Bid Security of **Rs. One Million (1,000,000/-)** in the form of CDR/ Bank Draft/Pay Order in favour of **Director General, Pakistan Meteorological Department (PMD), Islamabad** shall be submitted along with the Bid. Bids submitted without the required Bid Security shall not be entertained.

v. The successful bidders will furnish performance guarantee in the shape of CDR/Pay Order/Bank Draft @ 10% of his work order in favor of D.G. PMD till the completion of work/ Contract Period.

Note: ***All Firms are directed to quote their Bids online through PPRA E-PADS 2.0 as well as original Bids must be submitted in hard forms to Procurement Cell, PMD Headquarters office, Islamabad***

Deputy Chief Admin Officer
Pakistan Meteorological Department
H-8/2, Islamabad
Ph. 051-9250286

Proposal for maintenance, support and development of Mobile Application of Pakistan Meteorological Department (IOS & Android)

1. Background

The Pak Weather mobile application, provides essential weather forecasts and alerts to the public. In view of the growing demand for accurate, timely, and visually enriched weather information, it is proposed to engage firm to provide maintenance, support and development. This support will improve user experience, introduce premium features, and expand accessibility across multiple platforms.

2. Objectives

- Enhance and support UI/UX for better navigation and readability.
- Optimize app performance and introduce cross-platform (iOS and Android) support.
- Introduce premium subscription services for sustainability and value addition.
- Integrate high-resolution weather maps, radar, lightening detection, wind profiler, seismic, cyclone, ozone, agromet, satellite data visualizations and any other data sets of PMD.
- Login based premium services.
- Improve backend infrastructure for faster updates and scalability.
- New time to time user based requirements development and migration of the system to the latest available technology.

3. Present Status of the App

App Name	Pak Weather
Developer	PMD-IT, Pakistan Meteorological Department
Platform	Android
Frontend	React Native , Flutter
Backend	Two Virtual Machines (Node.js services)
Database	MongoDB (stores forecasts, user data, and farm coordinates)
Notification System	Firebase Cloud Messaging (from Server)
Data Source	PMD's Weather Model Data , Real time data acquisition system and forecast
Geo Mapping	GeoServer (intermittently functional)
Forecast Horizon	3 & 7-day forecasts
Target Users	General Public, Farmers, rural communities, agriculture officers, and disaster management Agencies
Real-Time Local Weather Updates	The app gives live weather conditions for user's current location (or specified location). This includes temperature, humidity, wind, and other immediate weather data.
Short-Term Forecasts	Weather nowcasting from several next hours to up-to 03 days. This allows users to plan ahead.
User-Level or Area-Specific Forecasts	Users can add custom locations so they can check weather specific to those sites.
Notifications / Alerts	The app sends weather warnings issued by PMD. Also, area-wise alerts so users get notifications relevant to their location. This includes extreme weather events.
Normal user-based login	Non-premium user generally don't need to register or login; only location permissions are used. This makes it quicker to start and less privacy-intrusive
Language Support	English and Urdu
Core Strengths	Official PMD data, localized user's-level forecasts, real-time alerts, agriculture focus etc
Limitations & Challenges	Support, maintenance and new development challenges.

4. Scope of Work

The following activities are proposed for the improvement of the Pak Weather application:

UI/UX Redesign	**Modern, responsive design aligned with PMD branding.**
Cross-Platform Development	Develop native Android, iOS, and responsive web versions.
Performance Optimization	Faster loading times, improved caching, and API enhancements.
Data Integration	Weather maps, radar, lightening detection, wind profiler, seismic, cyclone, ozone, agromet, satellite data visualizations and any other data sets of PMD.
Premium Services	Login-based additional high-value weather services for paid users.
Backend Infrastructure	Scalable backend using secure APIs and optimized databases.
User Management & Subscription System	Personalization, and payment gateway integration.

5. New Development of Premium Services

The following premium services are proposed for paid users:

1-hour Forecast Steps	**Provides georef impact-based hourly updates.**
24 hours daily forecast	Provides georef impact-based 24-hourly updates.
10-day Forecast Outlook	Customized Extended forecasts.
Frequent Forecast Updates	At least 4 updates per day.
High-resolution Forecast Maps	Detailed visualization layers and zoom capabilities.
Unlimited Favorites & Alerts	No restriction on saved locations or alerts.
Radar and Satellite Loops	12-hour animation loops for better visualization.
Satellite Archive	Access to 1-year satellite data archive.
Route-based Forecast	Weather guidance for travel and logistics planning.
Farm Forecast	Sector-specific forecast for agricultural users.
3D Globe Display	Interactive weather visualization in 3D view.
Additional Widgets & Settings	Custom widgets, themes, and layout options.
Event planning/Outdoor work:	Rainfall, lightning alerts, etc. for specific locations
Energy sector	Solar, wind, and temperature forecasting
Aviation & Maritime	High-resolution forecasts, wind/shear conditions
Historical weather data access	Historical extremes, customized data for multiple purposes
Seismological Survey	Geophysical survey for VS-30 metre
Qibla Directions	For specific purpose
Courses/Trainings on Meteorology	For aviators
Agriculture advisories	Advisories for Specific crops and locations
Further Development	Any other tailored services as per requirements of PMD

6. Eligibility / Qualification Criteria for the Executing Firm

- Demonstrated experience (minimum three years) successful developing and maintaining mobile applications that process meteorological, hydrological, and seismological data, rather than general-purpose consumer apps. The firm must have no conflict of interest (weather based business platform) regarding the development of Mobile App/Web Interfaces.
- Proven experience integrating real-time weather data feeds — radar, satellite imagery, lightning detection, or comparable scientific instrumentation — into production mobile applications at scale.
- Demonstrated GIS / geospatial experience, including work with GeoServer or equivalent platforms and high-resolution map/radar visualization layers.

- Prior experience building cross-platform (Android, iOS) applications with subscription or payment-gateway integration and secure user management, at a scale comparable to Pak Weather's existing user base (10,000+ users).
- Experience delivering bilingual (English/Urdu) government or public-sector mobile applications, including under the reliability and continuity-of-service expectations such platforms require.
- Demonstrated cybersecurity practices suitable for handling government data and payment/premium features, including secure API development and data protection.
- Documented capacity to field a dedicated team for the full duration of the engagement (as reflected in the proposed human resource allocation in Section 6), supported by past-performance references from comparable projects.
- No record of incomplete and non-compliance of the previous projects.

6.1 Technical Bid Evaluation Criteria (Technical Weightage 70%)

Technical bids will be scored out of 100 marks against the five criteria below. Each criterion states the evidence required for each level. Marks will be awarded strictly on the basis of the evidence submitted with the bid. Criterion 1 (15 marks) assesses the project record of the firm; criterion 2 (20 marks) assesses the written technical proposal and the experience of meteorological and scientific data applications; criteria 3 to 4 (65 marks) assess the team, the presentation and the working prototype. PMD may verify evidence with the clients named.

Requirement	Minimum evidence / condition	Level	Marks
1. Similar scale projects (10 marks)	Completed and currently live cross-platform (Android and iOS) mobile applications of complex nature, with real-time data feeds, login-based user management and subscription / payment-gateway integration, at a scale of 10,000+ users. Bilingual (English/Urdu) government or public-sector applications are preferred: each such project shall be counted as two projects for the levels opposite. Private mobile applications are counted on the same terms: applications developed for private-sector clients, and applications that are distributed privately (enterprise, internal or closed distribution) rather than through a public listing on Google Play or the App Store. Documented proof (work orders, completion certificates, app store links) is required. For an application without a public store listing, the proof is the work order or contract together with a letter from the client confirming that the application is live and the number of its users. Contacts of the clients may be acquired for verification.	≥ 5 projects	**10**
		≥ 2 projects	**5**
		< 2 projects (not disqualifying)	**0**
2. Technical proposal and meteorological / scientific data applications (15 marks)	The written technical proposal of the bidder, together with its experience of meteorological and scientific data applications. This criterion is scored on the documents submitted with the technical bid; the quality of the proposal is examined section by section at the presentation under criterion 4.		
	2.1 Meteorological and scientific data applications. Demonstrated experience of	Fully compliant	**10**
		Partially compliant	**5**

Requirement	Minimum evidence / condition	Level	Marks
	developing and maintaining mobile applications that process meteorological, hydrological or seismological data, including integration of radar, satellite imagery, lightning detection or comparable scientific data feeds, and GIS / geospatial visualization (GeoServer or equivalent). Experience may be demonstrated by either or both of: (a) projects of the bidder, evidenced by work orders, completion certificates or live application links; and (b) the documented experience of the personnel proposed under Section 6, evidenced by CVs stating the system, the client or employer, the role performed and a verifiable reference, whether gained with the bidder or elsewhere. Fully compliant: all three elements (processing of such data; at least one real-time scientific feed; GIS / geospatial visualization) are covered through at least one application of the bidder, or through at least two of the four proposed personnel. Partially compliant: some but not all of the three elements are covered, or the evidence rests on one proposed person only. Non-compliant: no such experience.	Non-compliant (not disqualifying)	**0**
	2.2 Written technical proposal. Complete in all aspects: a sustainable solution covering all components of the Scope of Work (Section 4) and Premium Services (Section 5). It shall contain: the assessment report of the existing application; the technology stack, architecture and hosting requirements; UI/UX mock-ups, wireframes and architecture diagrams (JPG, PDF, MPEG, Figma, etc.); the engineering process and quality assurance; security and data protection measures; the maintenance and support plan; deliverables with clear timelines; the staffing schedule in person-months for each named person in each month (effort only: no prices shall appear in the technical bid); and the presentation slides (PPT) arranged in the seven sections of criterion 4. Compliance: every item above is included and is addressed specifically for Pak Weather. Partial compliance: all components are addressed but one or more of the items is missing or generic. Non-compliance: one or more components of the Scope of Work or Premium Services is not addressed.	Compliance	**5**
		Partial compliance	**2**
		Non-compliance	**0**
3. Presentation (PPT) in seven defined sections (40 marks)	A presentation of the technical bid to the Bid Evaluation Committee by the proposed key personnel, under the equal conditions set out in Section 7. The slides (PPT) shall be submitted with the technical bid and shall be arranged in the seven sections below, in this order; the slides presented shall be those submitted.		

Requirement	Minimum evidence / condition	Level	Marks
	Each section is scored at one of three levels. Full: the section is presented specifically for Pak Weather, is consistent with the written bid, is supported by evidence that the bidder or its proposed team already works in this way (for example redacted pipeline configurations, test and coverage reports, review checklists, runbooks or release histories from previous projects, or the repository of the prototype), and the Committee's questions on it are answered soundly by the key personnel responsible. Partial: the section is presented but is generic, or is not supported by evidence of practice, or the questions on it are answered only in part. None: the section is not presented, or is materially inconsistent with the written bid. Each section is scored by each member of the Committee on the published score sheet; the bidder's mark is the average of the members' marks. A bidder that does not attend scores zero under this criterion.		
	Section 1: Assessment of the existing application. Review of the present Pak Weather frontend, backend (Node.js services), database (MongoDB), notification system, GeoServer and PMD data sources, with specific findings; gaps and risks; and a sequenced migration / upgrade path.	Full	**5**
		Partial	**2**
		None	**0**
	Section 2: Solution architecture and design. Technology stack with the reasons for each choice; architecture of the mobile applications, responsive web version, backend, databases and data pipelines; integration of PMD data sets through GeoServer or an equivalent OGC (WMS / WMTS / WFS) server; design of the premium subscription and payment gateway; hosting requirements; approach to performance, caching, offline use and scalability; UI/UX mock-ups and wireframes.	Full	**5**
		Partial	**2**
		None	**0**
	Section 3: Engineering process and quality assurance. Development methodology and release cadence; version control and branching in the PMD-controlled repository; peer review of every change and the definition of done; automated testing strategy (unit, integration, API and UI tests, target coverage, and the device and OS-version matrix); continuous integration with static analysis; automated build, signing and release to Google Play and the App Store with staged roll-out and roll-back; documentation standards.	Full	**5**
		Partial	**2**
		None	**0**
	Section 4: Security and data protection. Secure development life cycle; threat model for the applications and APIs; authentication and authorization; encryption in transit and at rest; management of secrets and signing keys; dependency and vulnerability scanning; the standards to be followed (OWASP MASVS and ASVS, or equivalent); independent security testing before major releases; handling of payment data through a certified payment gateway.	Full	**5**
		Partial	**2**
		None	**0**
	Section 5: Operations, maintenance and support. Monitoring, logging, and crash and performance	Full	**5**
		Partial	**2**

Requirement	Minimum evidence / condition	Level	Marks
	reporting; incident management and escalation against the service levels in Section 8; backup and disaster recovery; plan for compatibility with new Android / iOS releases; quarterly progress reporting.	None	**0**
	Section 6: Work plan, staffing and knowledge transfer. Deliverables with clear timelines, milestones and acceptance criteria; the staffing schedule and the role of each named person; risk register; plan for documentation and training of PMD-IT staff.	Full	**5**
		Partial	**2**
		None	**0**
	Section 7: Prototype walkthrough. Live demonstration of the submitted prototype builds on both platforms, and an explanation, from the repository and the pipeline, of how the prototype is structured, tested and built. Partial also applies where only one platform is demonstrated, or where a Figma prototype is demonstrated in place of working builds.	Full	**10**
		Partial	**4**
		None	**0**
4. Prototype: working builds on Android and iOS, or Figma (25 marks)	A prototype of a weather application, prepared by the bidder's proposed team for this bid to the prototype specification in Section 7 and submitted with the technical bid. Full marks are available only for a working prototype submitted as installable builds for both Android and iOS, scored under 4.1 to 4.5 (maximum 25 marks). A bidder may instead submit an interactive Figma prototype (or one made in an equivalent design tool), which is scored under 4.6.1 to 4.6.3 in place of 5.1 to 5.5 (maximum 10 marks). Where a bidder submits both, the higher of the two totals applies; the two are never added together. The Bid Evaluation Committee tests every prototype against the test script published in the information pack, working builds on PMD's reference devices; the same script and the same devices are used for every bidder. A bidder that submits no prototype scores zero under this criterion and is not thereby disqualified.		
	5.1 Builds ready on both platforms. The Android build and the iOS build submitted with the bid each install on the reference device and complete the test script without a crash.	Both platforms	**5**
		One platform	**2**
		Neither platform	**0**
	5.2.1 Functional completeness: current conditions and forecast. Function (i) of the prototype specification (Section 7.2.1 (b)), tested on both platforms. Live data is required except where the specification allows simulation.	Works on both platforms with live data	**2**
		Works on one platform only, or with static / simulated data	**1**
		Does not work	**0**
	5.2.2 Functional completeness: map layer. Function (ii) of the prototype specification (Section 7.2.1 (b)), tested on both platforms. Live data is required except where the specification allows simulation.	Works on both platforms with live data	**2**
		Works on one platform only, or with static / simulated data	**1**
		Does not work	**0**

Requirement	Minimum evidence / condition	Level	Marks
	5.2.3 Functional completeness: alerts. Function (iii) of the prototype specification (Section 7.2.1 (b)), tested on both platforms. Live data is required except where the specification allows simulation.	Works on both platforms with live data	**2**
		Works on one platform only, or with static / simulated data	**1**
		Does not work	**0**
	5.2.4 Functional completeness: bilingual interface. Function (iv) of the prototype specification (Section 7.2.1 (b)), tested on both platforms. Live data is required except where the specification allows simulation.	Works on both platforms with live data	**2**
		Works on one platform only, or with static / simulated data	**1**
		Does not work	**0**
	5.2.5 Functional completeness: login and premium access. Function (v) of the prototype specification (Section 7.2.1 (b)), tested on both platforms. Live data is required except where the specification allows simulation.	Works on both platforms with live data	**2**
		Works on one platform only, or with static / simulated data	**1**
		Does not work	**0**
	5.3 Performance and stability. Measured on the reference devices and network profile stated in the information pack. The conditions, each to be met on both platforms, are: (i) cold start to a usable home screen within 3 seconds; (ii) map layer displayed and interactive within 5 seconds; (iii) no crash, freeze or "application not responding" event during the test script.	All three conditions met	**3**
		Two conditions met	**2**
		One condition met	**1**
		No condition met	**0**
	5.4 Engineering quality of the prototype. Verified from read-only access to the prototype's source repository. The items are: (i) a commit history showing that the prototype was developed by the proposed personnel; (ii) automated tests that run and pass in a continuous-integration pipeline; (iii) both builds produced by that pipeline from the repository; (iv) a README from which the builds can be reproduced, with a list of the third-party and open-source components used.	All four items shown	**4**
		Three items shown	**3**
		Two items shown	**2**
		One item shown	**1**
		No item shown	**0**
	5.5 Usability and accessibility. The conditions, each to be met on both platforms on the screens covered by the test script, are: (i) Urdu text renders correctly and the layout is right-to-left in Urdu; (ii) no clipped or overlapping content on the smallest and the largest reference device, including with the system font size increased; (iii) text and map legends meet WCAG 2.1 level AA contrast.	All three conditions met	**3**
		Two conditions met	**2**
		One condition met	**1**
		No condition met	**0**
		Both platforms	**2**

Requirement	Minimum evidence / condition	Level	Marks
	5.6.1 Figma alternative: click-through. Applies only where a Figma prototype is scored in place of 5.1 to 5.5. The interactive prototype completes the test script from start to finish for the Android and the iOS screen sizes.	One platform	**1**
		Neither platform	**0**
	5.6.2 Figma alternative: functions. The number of the five functions of the prototype specification (Section 7.2.1 (b)) that are shown as a navigable flow.	All five functions	**5**
		Four functions	**4**
		Three functions	**3**
		Two functions	**2**
		One function	**1**
		No function	**0**
	5.6.3 Figma alternative: usability and accessibility. The number of the three conditions in 5.5 that are met in the designs.	All three conditions met	**3**
		Two conditions met	**2**
		One condition met	**1**
		No condition met	**0**
Total Marks			**100**
Passing Marks (minimum technical score to qualify for financial evaluation)			**70**

6.2 Financial Evaluation Criteria (Financial Weightage 30%)

7. Performance evaluation report:

The firm shall provide in written of the following jobs / tasks assigned for maintenance / development.

Modern, responsive design aligned with PMD branding.	**Quarterly report on the progress of the each deliverables.**
Develop native Android, iOS, and responsive web versions.	
Faster loading times, improved caching, and API enhancements.	
Weather maps, radar, lightening detection, wind profiler, seismic, cyclone, ozone, agromet, satellite data visualizations and other data sets of PMD.	
Additional high-value weather services for paid users.	
Scalable backend using secure APIs and optimized databases.	
Login, personalization, and payment gateway integration.	

PMD shall evaluate the performance of the firm based on the above reports.

Terms & Conditions:

1. **Earnest money/ Bid Security Rs. One Million (1,000,000/-)** in the shape of CDR/ Bank Draft/Pay order in favour of D.G PMD must be submitted with the offer.
2. Bidders must submit copies of their registration of Sales Tax and Income Tax.
3. Eligibility Criteria: Participating firm must be, fully experienced and registered with Govt. Authorities (FBR etc.).
4. Bidder must submit on stamp paper
   (i) That there are no pending liabilities in respect of the bidder/ firm against any government/semi-government department/ organization
   (ii) That the bidder has not been black listed by any government/ semi-government department/ organization. Legal documents can be asked by the buyer, if required.

5. **BID VALIDITY**: Bids shall remain valid for a period of at least **120 days** after the date of opening of financial proposals.
   In exceptional circumstances, prior to expiry of the original bid validity period, the Buyer may request that the bidders extend the period of validity for a specified additional period. The request and the responses there to shall be made in writing or by electronic mode. A bidder will not be required or permitted to modify its bid, but will be required to extend the validity of its bid security for the period of the extension.
6. **Prices must be quoted in Pak Rupees only including all applicable Govt. of Pakistan taxes & GST**.
7. **The successful bidders will furnish performance guarantee in the shape of CDR/Pay Order/Bank Draft @ 10% of his work order in favour of D.G. PMD till the completion of the work/ warranty period.**
8. The last date for the submission of tender is 08th December, 2026 at 10.30 Hours and will be opened on the same day at 1100 hours.
9. Time Period for the completion of task is Six (06x) Months after signing the contract.
10. The Procuring Agency reserves the right to cancel the bidding process at any stage without assigning any reason.
11. Taxes will be deducted as per Government rules.
12. Any bid found in deviation / violation / without earnest money would liable to be rejected.
13. Bidding documents having detailed specifications are available free of cost at the website https://weather.gov.pk, PPRA EPADS https://pa.epads.gov.pk as well as https://epms.ppra.gov.pk.