

TENDER DOCUMENTS

**REPLACEMENT/UPGRADATION OF SEISCOMP-PRO SOFTWARE OR EQUIVALENT
FOR NATIONAL SEISMIC PROCESSING AND DECISION-SUPPORT ENVIRONMENT**



No. I&P/Seismic/Seiscomp/26-27

**Pakistan Meteorological Department
Sector H-8/2,
Islamabad,
September, 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/Government/ Semi Government Organizations/Suppliers/ Vendors/ duly registered with relevant Government Agencies and active tax payers for “**REPLACEMENT/UPGRADATION OF SEISCOMP-PRO SOFTWARE OR EQUIVALENT FOR NATIONAL SEISMIC PROCESSING AND DECISION-SUPPORT ENVIRONMENT**” 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.	REPLACEMENT/UPGRADATION OF SEISCOMP-PRO SOFTWARE OR EQUIVALENT FOR NATIONAL SEISMIC PROCESSING AND DECISION-SUPPORT ENVIRONMENT	06-10-2026 at 10:30PST	06-10-2026 at 11:00PST

Terms & Conditions:

- i. Method of Single Stage – two envelope procedure under Rule 36(b) of the Public Procurement Rules, 2004 shall be followed. Bidding documents having detailed specifications are available free of cost at the website <https://weather.gov.pk>, PPRA EPADS 2.0 <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 06-10-2026 till 1030 hrs. The same will be opened by the constituted committee at 1100 hrs. on the same day in the presence of participants or their authorized representatives.
- iii. Competent Authority reserves the right to reject or accept any or all the proposals without assigning any reason under PPRA Rules.
- iv. Bid Security of **Rs 3,000,000/-** 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 bidder will furnish performance guarantee in the shape of CDR/Pay Order/Bank Draft/Bank Guarantee @ 10% of his work order in favor of D.G. PMD till the completion of work/ Contract/ Warranty 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 I&P Section, PMD Headquarters office, Islamabad

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

GOVERNMENT OF PAKISTAN
PAKISTAN METEOROLOGICAL DEPARTMENT
NATIONAL SEISMIC MONITORING CENTRE

PROPOSAL FOR
REPLACEMENT/UPGRADATION OF SEISCOMP-PRO SOFTWARE OR EQUIVALENT
FOR NATIONAL SEISMIC PROCESSING AND DECISION-SUPPORT ENVIRONMENT

Document Particular	Details
Department / Office	Pakistan Meteorological Department (PMD) - National Seismic Monitoring Centre (NSMC)
Proposal Purpose	Replacement of the existing SeisComP 6 environment with a supported SeisComP-Pro or equivalent release on the latest compatible Linux operating system, including data migration, licensed professional packages, regional configuration, testing, maintenance and support.
Operational Focus	Reliable 24/7 processing, improved event detection, analyst review, source characterization, strong-motion products, dissemination and tsunami decision support.

1. Background and Purpose

The National Seismic Monitoring Centre operates continuous waveform acquisition, real-time earthquake processing, analyst review, bulletin preparation and seismic-hazard decision support for Pakistan. The existing SeisComP environment supports these core services, but limited licensed functionality and fragmented workflows reduce efficiency, consistency and operational resilience.

This proposal replaces the existing software environment with a supported SeisComP-Pro release **or equivalent** on the latest compatible Linux operating system and the required professional packages. Deployment will use PMD-provided operating resources that meet the stated SeisComP-Pro **or equivalent** compatibility and capacity prerequisites. Any resource shortfall is outside the scope of this software proposal and shall be addressed separately under applicable departmental arrangements. The work covers software replacement, migration, configuration, validation, maintenance and support.

2. Objectives

- Improve automatic detection and association of local, regional, aftershock and swarm seismicity.
- Reduce analyst workload through reliable event evaluation and controlled browser-based review.
- Strengthen waveform reception, archive access and real-time event exchange.
- Support moment-tensor, strong-motion, dissemination and tsunami workflows.
- Complete migration, regional tuning, acceptance testing and handover of software support and operating documentation.

3. Scope of Work

Ref.	Work Area	Included Scope
A	Core software replacement and migration on the latest Linux OS	Replacement with the latest compatible SeisComP-Pro release or equivalent, including migration of inventory, bindings, database records, event history, waveform access and user roles. License terms and eligible updates shall follow the selected licensing schedule, with waveform/archive access and retention migrated into the approved PMD operating environment.
B	Professional software packages	scanloc, sceval, GAPS, CAPS, MT, SIGMA, GDS/GIS/QuakeLink and supported TOAST. The compatible PMD-provided deployment environment shall provide at least 12 x86-64 processing cores at 3 GHz base clock and 64 GB volatile memory. For PMD multi-year waveform/archive retention, the required usable storage capacity shall be 16 TB with appropriate redundancy protection.
C	Regional configuration and testing	Pakistan processing profiles, representative playback tests, reporting templates, tsunami workflow and controlled operational transition.
D	Software maintenance, support and handover	50-hour software maintenance support, valid for two years, together with required configuration, recovery and license documentation.

Ref.	Work Area	Included Scope
E	Visualization and display capability	The PMD-provided operating environment shall support multi-display operator visualization and at least 8 GB dedicated graphics memory for visualization and applicable accelerated/deep-learning modules.
F	Network integration	Support for segregated waveform-acquisition, operational-access and redundancy/management network paths, consistent with the existing PMD network design and authorized integration requirements.

4. Software Packages and Functions

Software / Package	Required Function
SeisComP-Pro or equivalent	Messaging, inventory, database integration, waveform archive access, automatic processing and operator applications.
scanloc - Phase Associator	Advanced P- and S-phase association and event location for local, regional, swarm and aftershock sequences.
sceval - Origin Evaluator	Automatic origin evaluation, confirmation of credible events and controlled rejection of false solutions.
GAPS - Web Applications	Controlled browser-based access for event, station, waveform and detailed origin review.
CAPS - Common Acquisition Protocol Server	Multi-format waveform reception, storage, distribution, redundancy monitoring and historical retrieval.
MT - AUTOMT/MTV	Automatic and interactive moment-tensor inversion with waveform review and quality control.
SIGMA - AUTOSIGMA/SIGMA	Strong-motion parameters, response spectra, intensity products, reports and ground-motion maps.
GDS/GIS/QuakeLink	Bulletin dissemination, image generation and controlled real-time event exchange.
TOAST	Tsunami simulation and decision-support workflow for the applicable tsunami-monitoring region.

5. Replacement and Configuration Method

1. Review the active SeisComP services, databases, inventories, station bindings, archives, user roles and dependencies.
2. Create verified backups and checksums before any change and document the rollback procedure.
3. Migrate validated inventory, response information, bindings, event data and required waveform access.
4. Activate and configure the licensed packages of SeisComP-Pro **or equivalent** release.
5. Tune association, event evaluation, source, strong-motion, dissemination and tsunami workflows using representative playbacks.
6. Move routine operations to the upgraded environment after acceptance and closure of critical observations.
7. If the primary PMD-hosted deployment platform becomes unserviceable during the applicable warranty/support period, the OEM shall support reinstallation and complete software reconfiguration on an authorized compatible alternate PMD-provided platform.
8. Any license or support limitations shall be stated clearly in the final schedule.
9. *PMD shall be provided with the required installers/repositories, licensed modules, configuration and recovery procedures needed to restore the authorized SeisComP-Pro or equivalent deployment on another compatible PMD-provided platform (at least 02 units) when operationally required.*

6. License and Support

- License terms shall follow the selected quotation: annual licenses shall remain valid for the period stated for each quoted module, while lifetime licenses shall remain perpetual. CAPS is identified as a lifetime license in both reference options.
- For lifetime licenses, updates are included for two years, with subsequent update entitlement subject to the quoted terms. Any annual-license update entitlement, later update charges and recurring obligations shall be stated clearly in the final license schedule.
- The final license schedule shall identify PMD as the license holder and clearly state package terms, release compatibility, update entitlement and passive continuity rights.
- The 50-hour software maintenance support shall remain valid for two years and shall be tracked through a shared support record.

7. Acceptance Requirements

Acceptance Area	Minimum Evidence
Core and migration	SeisComP services are stable; inventory, bindings, event records and waveform/archive access are verified; migrated records are reconciled; and compatibility with the stated PMD-provided deployment resource baseline is demonstrated.
Processing packages	Each licensed package completes its agreed functional test using live or archived PMD data, with results documented.
Regional configuration	Local, regional, swarm, source, strong-motion, dissemination and tsunami workflows are verified through agreed representative playbacks.
Continuity and security	User roles, logging, backup, restore, rollback, restart/recovery and continuity rights are demonstrated.
Documentation and support records	Configuration notes, recovery procedures, license schedule, support records and contact details are accepted by PMD/NSMC.

8. Completion Schedule

Stage	Workstream	Completion Output
1	Baseline and safeguard	Current-state review, verified backups, checksums, migration plan and rollback procedure.
2	Core migration and package activation	SeisComP-Pro or equivalent baseline, data migration and licensed package configuration.
3	Regional configuration and acceptance	PMD playbacks, parameter tuning, package tests and closure of critical observations.
4	Documentation and handover	License records, configuration notes, operating/recovery procedures and support activation.

9. Qualification and Evaluation Criteria

9.1 Mandatory Requirements

- For local vendor verifiable OEM/software-publisher authorization, including an authority letter, for the offered licenses, implementation and support.
- Complete package,
- Software Version,
- Software License-term,
- Software free update consent
- Acceptance of PMD data confidentiality, migration, backup, rollback, testing, documentation and handover.

9.2 Technical Evaluation

S. No.	Evaluation Criterion	Evaluation Basis	Marks	Written Compliance
1	Software compliance and package completeness	SeisComP-Pro core plus scanloc or equivalent, sceval, GAPS, CAPS, MT, SIGMA, GDS/GIS/QuakeLink and supported TOAST; compatible release/version, complete license scope, and documented compatibility with the stated PMD-provided deployment resource baseline. Full compliance with all required packages and stated deployment baseline = 35 Any required package omitted/incompatible, or stated deployment baseline not met = 0	35	Complied
2	Migration, interoperability, continuity and security	Documented compatibility with PMD inventory, databases, archives and waveform data; migration validation; backup/restore; rollback; access control; logging and continuity. Full documented compliance = 10 Non-compliance or no evidence = 0	10	Complied
3	Regional configuration and acceptance method	Pakistan processing profiles; playback and tuning plan; local/regional/swarm workflows; source, strong-motion, dissemination and tsunami configuration; acceptance method. Complete Configuration = 10 Not provided/non-compliant = 0	10	Complied
4	Schedule, documentation and handover (deployment time)	Complete deployment, migration, configuration, acceptance, documentation and handover schedule. 90 calendar days or less = 20 91–120 calendar days = 10 More than 120 calendar days = 0	20	Complied
5	Implementation technical team with verifiable Cvs (local technical team)	Qualified personnel with relevant SeisComP/software or equivalent, seismological processing, database/network and implementation/support experience, supported by verifiable CVs and assigned roles. 5 or more qualified personnel = 15 3–4 qualified personnel = 8 Less than 3 = 0	10	Complied (CVs/evidence to be verified)
6	Seismic data formats and local sensor/digitizer integration (plugin support)	Verified support for PMD-relevant seismic data/waveform formats, protocols and local sensor/digitizer integration interfaces, including .dat where applicable. 04 or more PMD-accepted verified data format = 15 Less than 4 = 0	15	Complied (technical evidence to be verified)
	Total Technical Marks	<i>Weighted Technical Score = (Obtained Technical Marks × 70) / 100</i>	100	—
	Passing Marks 70			

Terms & Conditions:

1. **Earnest money/ Bid Security** 3,000,000/- in the shape of CDR/ Bank Draft/Pay order in favour of D.G Met. Services 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/Bank Guarantee @ 10% of his work order in favour of D.G. PMD till the completion of the work/ Contract period/ Warranty Period.**
8. The last date for the submission of tender is 06th October, 2026 at 10.30 Hours PST and will be opened on the same day at 1100 hours PST in the presence of bidders or their representatives.
9. The Procuring Agency reserves the right to cancel the bidding process at any stage without assigning any reason.
10. Taxes will be deducted as per Government rules.
11. The payment against supply of items will be made through crossed cheque(s) in Pak Rupees by the Department to the supplier after satisfactory supply of goods and technical report submitted by the Technical Committee.
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>.