

## Development of Web based Geographic Information System (GIS)

### Response to the Queries

Sr	Query	Response
1.	Available open source data for population density is 1000X1000 meters resolution and to integrate 100X100 meter the data needs to be purchased. Is 1000X1000 meters data acceptable?	Queries raised by the potential bidder at Sr Nos. 1, 2 & 3 are itself contradictory in nature.
2.	What is required resolution of satellite imagery for base map?	Resolution requirement as per bid document ranges from 30 sq. meters to 100 sq. meters which can be further extended from 500 to 1000 sq. meters, decision lies with the bidder however, 30 sq. meter resolution may fulfill the requirement.
3.	Open source satellite imagery available is in coarse resolution (i.e. > 30 meter), will that server the purpose?	
4.	Open-Source satellite imagery might not be very recent, how fresh base map satellite imagery is acceptable?	Imagery from recent past (e.g. up to 6-12 months old imagery) shall be acceptable
5.	Needs further clarification on “capability to integrate with multiple database”	Multiple databases may include but may not be limited to BTS/ Coverage data, complaint system and surveys etc.
6.	Open-Source DEM is available in coarse resolution (i.e. >30 meters), is that acceptable for terrain profiling?	Digital Elevation Model is a three-dimensional representation of the earth's surface and any available open source can be used
7.	Which standard models are mostly used for terrain profiling in telecommunication?	Standard models used in wireless systems are models for signal prediction in different type of morphology, examples are COST Hata and Okumura. Terrain files are integrated with Digital maps.
8.	Is complaint data available that we will integrate with GIS system, also does the complaints have any locational information?	Yes, data of for complaints is available along with the location to city level. However bidder will be required to integrate maps in PTA complaint management system for exact location for future analytics.
9.	Is there any existing software system in PTA for managing complaints? And how does it work?	Yes. The application is available for consumption of General Public through web and mobile app. The same is available on PTA web-site.
10.	Migration of e-files and document, do you have an estimate of how much is the data size/ volume.	All the data is already available in electronic format. The required storage will be provided by PTA as per requirement.
11.	Will system be hosted on PTA Servers?	Yes
12.	Need more clarity on “analytical tools for analytics, insights using BI” that bidder has to provide? Will this be part of web based system or a standalone tool?	We want web application should have built-in capability for generating on demand reports. However for any special requirement any stand-alone tool can be used.
13.	Since solution will require integration and migration of existing system, the timeline are too strict, is there any possibility of extension?	The timelines are designed keeping in view of scope. The project is required to be completed in given timelines unless any reasonable justification of delay is provided by selected bidder and accepted by the technical committee.

14.	Is it compulsory to follow timelines of each milestone, or bidder can divide days according to the proposed project plan?	Bidder can divide days as per his own convenience which do not effect milestones of software development.
15.	Will there be a pre-bid meeting? If yes, when and where?	Yes. The notification of the same is published on PTA web-site
16.	Input data types, formats and file sizes	Data is available in widely compatible formats such ESRI shape files, tables, markups and spreadsheet formats. File size may vary from 5-10 GB.
17.	Frequency of update of data	Quarterly/and or bi-annually
18.	Source of Data e.g. population, administrative boundaries etc.	Bidder has to arrange from reliable sources like Survey of Pakistan, Pakistan Bureau of Statistics etc. for boundaries and any valid open source data as already mentioned in RFP.
19.	No information about servers hardware infrastructure, operating systems & technologies	PTA will be using its existing infrastructure to host the application. However if for processing of data any GPU is required the same will be provided by PTA
20.	Data preprocessing (extract, transform and load) can be very time consuming task	As above
21.	System will have access to internet or not	No system will not be accessible to internet, however PTA might use this application remotely through VPN
22.	Base maps, Satellite imagery and Geocoding has monthly API cost and need internet connection.	We will prefer open-source and internet in case of requirement will be available for only required domain or IP addresses.
23.	Application User management and access levels no information	The information will be provided on detail analysis by successful bidder
24.	Information of systems and technologies used by PTA current and future	PTA is currently using Google Earth and MapInfo and other open-source application available.
25.	it is noted in the TOR page 17 / 3.3 that "Open-Source application platforms can be used for development of system." Then in the Annex E (financial table) : "Proprietary Software Solution for PTA including ...". Can you please clarify your choice / needs between open source and proprietary solution?	The platform used by the bidder can be open-source as mentioned in RFP, however customized application developed for PTA shall be proprietary and all intellectual property rights will belong to PTA.
26.	it is understood that schedule of payment is "Module wise payment". Is it possible to have an advance payment (30%), or a different schedule by stage / part of the module? In 2 or 3 stages?	Payment terms as mentioned in RFP are intact.
27.	TOR page 20: "The supplier [...] shall be responsible for provisioning satellite imagery...". Can you please precise what your mean by satellite imagery?	"Satellite Imagery" is very common terminology for developing GIS application. However, for the purpose of clarity it is "photographs of Earth captured by means of satellites".
28.	It is not indicated in the TOR, but due to the huge amount of datasets to be displayed in a web geoportal environment at national, sub-	Yes.

	regional & local level, are you also expected to get "on the fly" statistic calculation ?	
29.	<p>"User and developer training". Can you please precise:</p> <ul style="list-style-type: none"> <li>- Which users' groups of PTA staff must be trained during the assignment?</li> <li>- At which levels?</li> <li>- For how long / duration of each session?</li> <li>- Where these training sessions must be completed (on site in PTA / online / both)?</li> <li>- If on site in PTA office, where (HQ and / or regional offices / both)?</li> </ul>	The on-prem user training will be conducted for relevant Officers and staff for which a comprehensive training schedule and manual to be provided by the supplier. However, developer training will be conducted for PTA nominated technical resources along with complete technology transfer.
30.	Annex-D, Part B) Technical Capabilities of Bidder (Sr#1 & 2), Can bidder use the international proven references and team of its Solution provider/ OEM? Bidder can provide OEM/ Solution provider Partnership Certificate/ teaming agreement in their bid to PTA, please confirm if this acceptable to PTA?	All contractual obligations shall be responsibility of the bidder.
31.	Annex-D, Part A) Mandatory Requirement- Minimum five years of relevant experience- Minimum 1 x similar nature assignment Does this related to GIS experience having similar nature assignment in Telecom Sector only?	The bidder should have relevant experience for development of GIS applications in any sector.
32.	1.3 Terms and Conditions (a): We request to PTA to please extend the bid submission date for 2-3 week at least.	Submission timeline will remain the same.
33.	Will PTA provide the hardware infrastructure for this deployment?	Yes
34.	What is maximum (peak) anticipated number of users of the Application?	20-25 operational users will be using the application
35.	What extent of customization, PTA is expecting in the Application in future?	As per advertised criteria in bid document, the application should be developed on modular and scalable approach for accommodating future requirements.
36.	Is there a need of any 3D visualization capability in the application?	Optional
37.	Who (PTA or Development Company) will perform Pen Testing, should be include this effort in the proposal?	Third party to be hired by the bidder in consultation with PTA to carry out pen testing.
38.	Does PTA has any technological restraints such as ESRI or open source?	No.

39.	Can Client propose ESRI solution with licensing costs? Might affect financial numbers?	Yes, however the project will be awarded to the technically qualified lowest financial bidder as mentioned in bid document
40.	Can Client use Google Earth Engine for Population Analysis? Might have extra head of costing?	Same as Sr 39.
41.	Can Client use Docker/Kubernetes for the deployment? Does PTA's infrastructure support this?	Yes
42.	Is there any third party integration required for PTA's systems/databases?	Not an immediate requirement , however system should be capable to cater any third party integration as and when required.
43.	Is there any database / REST endpoint already available with PTA?	Yes
44.	What is the format of coverage layers that need to be integrated in the system?	Refer Sr 16.
45.	Can client propose format of ingestion for CMOs	Yes
46.	The document does not elaborate the possibility of formation of JV or sub-contracting arrangement with two or more parties for the subject assignment. Please clarify.	Yes possibility of formation of JV / sub-contracting are there, however all parties to comply with the mandatory requirements as mentioned in bid document.
47.	The comprehensive scope of the RFP requires detailed working for optimal solution design and competitive pricing which will require additional time for proposal formulation and completion of documentary requirements. It is therefore requested that the current submission deadline may please be extended by at least two (02) weeks. This extension will enable us to formulate a comprehensive technical response with best possible pricing for the requirement.	Refer Sr 32
48.	What will be estimated cost?	Estimated cost cannot be shared.
49.	What type of datasets do you currently have for each administrative level and to which extent is the data available?	Administrative datasets as mentioned in RFP are to be arranged by bidders from reliable sources. Refer Sr 18
50.	Can Open Street Map can be used for data visualization? Or do you require a satellite imagery base-map for that purpose?	Already clarified in bid document
51.	Will we need DEM/ DTM/ DSM for Terrain profiling? Or we will use contour maps?	Refer Sr 6,7
52.	Will complaints need to be geotagged? Or will we list them at UC/Tehsil level?	Yes where geo-tag/GPS ref is available, Furthermore for integration, please Refer Sr 8.
53.	Can PostgreSQL be used for the Database, or will Oracle be preferred?	Bidders own preference.

54.	<p>TOR page 22 " Data Migration: bidder will be responsible for complete migration of existing e-files and documents and any other data available in existing systems."</p> <p>- TOR page 26 "Migration of Existing data: Migrating all the existing data available in different formats or any other existing database to the new system."</p> <p>What is "E-Files"?</p> <p>What is a "document"?</p> <p>What is "any other data"?</p> <p>Can you please precise the list / number of systems, the volume of data and the exhausted list and type of data with associated quality metadata?</p> <p>Without these information's and detailed description, no bidder can estimate the workforce / duration / financial impact of it.</p> <p>What will be the responsibility of the bidder if the data to migrate within the new system is not ISO quality in term of spatial topology and semantic?</p> <p>Is the bidder responsible of the modification of the data before integration (if requested by the IT system), considering that the bidder is not the initial data producer, and not responsible of the initial product data quality?</p>	Refer Sr 10
55.	<p>TOR page 14 / Evaluation of Financial Proposals / point C &amp; D</p> <p>Your award procedure seems to disadvantage a highest technical note (eg. two technical notes at 70 vs 95 and two financial proposals with few hundred PKR of difference &gt; the award bidder may be the one with the technical note of 70, which is unfair and possibly dangerous for the client in term of implementation project management, quality and governance).</p> <ul style="list-style-type: none"> <li>▪ Can you precise if you will consider a balance between the technical and the financial note (80/20; 70/30; 60/40 ...) to award the contract.</li> </ul>	PPRA Rules are being followed .