Request for Proposal (RFP): Design, Development and Maintenance of Bengaluru Transport Stack

Pre-bid Queries and Responses

Section / Category	Sr No	Bidder Question	Response
1. Platform Access & Existing Build	1	The RFP states that Phase 1 is currently operational with existing source code hosted on MTS repositories. Will the selected Digital Partner be granted access to the existing source code, data models, and technical documentation immediately upon issuance of the Letter of Award, to enable due diligence and informed solution design?	The selected partner would be granted access to the code after declaration of results
1. Platform Access & Existing Build	2	Can we get read access to the BTS Gitlab repo (gitlab.com/transport-stack) and Wiki (wiki.transportstack.in) before submission? If only Phase-1 architecture docs and API specs are available, that works — but we need it before sizing the build.	The selected partner would be granted access to the code after declaration of results. A write up of architecture doc would be shared along with this document.
1. Platform Access & Existing Build	3	Can we get a live demo of the existing Bus Ops dashboards (Realistic Travel Time, Frequency Recommendation, Schedule Adherence, Metro Feeder) and the v1 Journey Planner before submission, so we can assess functional parity vs. rebuild needs?	A write up of the existing Bus Operations dashboards is included in the RFP document with the necessary details, the details would be provided to the selected partner after declaration of results
1. Platform Access & Existing Build	4	What is the existing Journey Planner engine — OpenTripPlanner, GraphHopper, Conveyal R5, or custom build? This is the foundational extend-vs-rebuild decision.	The development scope for the Journey planner in the 2nd phase if for the extension of the current platform. We cant give specifics, but it was built on top of an existing planning engine. Details would be provided to the selected participant post result declaration.
1. Platform Access & Existing Build	5	Q2. Which existing platform components from Phase 2 are expected to be reused as-is, enhanced, or newly built under this phase?	The current status of the build is described in Section 3.3. Additionally, section 4 details the scope that is already built under each section.
1. Platform Access & Existing Build	6	Q3. Will the selected partner receive access to the current BTS codebase, architecture documents, deployment pipelines, and technical documentation from the previous phase? If so, by what date relative to contract commencement?	The selected partner would be granted access to the code after declaration of results
1. Platform Access & Existing Build	7	Q6. For dashboards where a Version 1 was developed in Phase 2 — specifically Frequency Recommendation, Schedule Adherence, and Metro Feeder Analysis — is the expectation to enhance the existing builds or rebuild them under a new architecture?	There is a first version of these dashboard developed in BTS as mentioned in the RFP, the scope for next phase is to build on top of the developed dashboard
2. Data Availability & Integration	8	For the Integrated Journey Planner, the RFP references real-time GTFS data from Bus and Metro operators. What is the current data availability and refresh frequency from these sources? Are there known gaps in live feed reliability that the vendor should account for in solution design and SLA commitments?	Live GTFS datafeed from Busses and Metro Origin and Destination footfall data are integrated as part of BTS. Indicative dataset includes: Bus: Schedule, Stops, Live GPS feed Metro: Station, footfall Others: Footpath information, Last mile mobility, parking information
2. Data Availability & Integration	9	~80% of required data is on the platform. Can we get the data catalog (sources, schemas, refresh cadence, completeness) and an explicit list of the 20% gap (beyond ETM ticketing)?	Heres an indicative list of datasets that currently exists in BTS: Bus: Schedule, Stops, Live GPS feed Metro: Station, Footfall with OD pair Others: Footpath information, Last mile mobility, parking information Other datasets to be onboarded: Bus: Ticketing data Others: Landuse data, Metro station facilities

2. Data Availability & Integration	10	ETM ticketing pipeline — who owns the ETM data (Operator or a vendor)? Is integration push (vendor → BTS) or pull (BTS → vendor API)? What is the cadence (real-time / EOD batch / weekly)? What is the daily transaction volume?	ETM data is owned by Bus operator, the integration pipeline, cadence for the same needs to be aligned as part of the development. The typical approach followed currently is BTS pings an API exposed by the source platform to fetch the data.
2. Data Availability & Integration	11	Is the 'cut trips' / partial-trip detection logic standardised in the bus operator SOP, or is it for us to define jointly with Operator during discovery?	Cut trips indicate trips which are partially completed, the kilometres in thetrip not completed are identified as cancelled kilometres. Detection for cut trips is through the GPS data and route information shared from source system.
2. Data Availability & Integration	12	Is GTFS-RT already published for Bengaluru transit? At what vehicle-position update frequency, and through which API or feed?	Live GTFS datafeed is already available in BTS platform, assume 15 sec location update for all busses
2. Data Availability & Integration	13	Who owns the dataset for accessibility (ramps / lifts / tactile flooring / station accessibility) — BMTC, BMRCL, DULT? Is it already collected and digitised, or does collection fall under our scope?	The accessibility dataset is not part of BTS yet, that would need to be integrated from BMRCL and other sources. JICA DXLab would assist in gathering the dataset, assume some cleansing effort to have usable data on BTS platform
2. Data Availability & Integration	14	What is the health of existing PTO integrations — are pipelines reliable enough to extend, or do they need to be re-engineered as part of this scope?	The current pipelines can be assumed to be in stable condition and can be extended
2. Data Availability & Integration	15	Which front-end apps already consume BTS APIs today ? What SLAs are these consumers operating against, and do we need to maintain backward compatibility during this engagement?	Some downstream operators currently consume data from the transport stack. Backward compatibility needs to be maintained for existing integrations.
2. Data Availability & Integration	16	For Form4 schedules, Live GTFS/GPS, ETM, Metro schedules, Metro ridership: please confirm data owner/POC, access method (API/SFTP/DB/stream), refresh frequency/latency, and historical depth available (Realistic Travel Time requires at least 3 months).	Heres an indicative list of datasets that currently exists in BTS: Bus: Schedule, Stops, Live GPS feed Metro: Station, Footfall with OD pair Others: Footpath information, Last mile mobility, parking information The data is of sufficient quality and volume to support the use cases. The primary dataset that is not yet on the platform are indicated below: Bus: Ticketing data Others: Landuse data, Metro station facilities
2. Data Availability & Integration	17	The use case references updating analysis based on real-time disruptions/civil works. Is there an existing feed/system for disruptions and civil works? If yes, please share access methods and update frequency.	Real time disruptions feed is available on the platform, the same might be leveraged in getting a more realistic travel time if the recency trend shows a large and consistent deviation
2. Data Availability & Integration	18	Please confirm the “source of truth” for stop/station IDs and mapping between bus/metro, and whether proximity / interchange datasets (including OSM usage) are already available as part of BTS.	Stop information is already available in BTS platform
2. Data Availability & Integration	19	Q4. Will complete access to GTFS, live GPS, ETM, metro schedules, metro ridership, and Form 4 schedule datasets be available from project commencement? Are there any known gaps or pending data-sharing agreements with source agencies?	Access to the full platform would be available from the project commencement. Currently the data on the platform can be assumed to be reliable with scope for additional data onboarding
2. Data Availability & Integration	20	Q14. For frequency recommendation and route optimization use cases, are the existing business assumptions, thresholds (e.g., EPKM targets, trip overlap percentages), and decision rules already defined and signed off by the client, or will the bidder be expected to validate and finalize these during implementation?	The business requirements around these dashboards are defined by the business user. There might be some amount of alignment required with the business users depending on the proposed solution approach
2. Data Availability & Integration	21	Q15. Will catchment area definitions, metro station boundaries, and service planning assumptions for the metro feeder analysis be provided by the client, or should these be derived independently by the bidder?	The definition of catchment area needs to be defined in conjunction with the Operators and other agencies

3. Scope Boundaries	22	Section 4.2.2 references a frontend application that feeds infraction data into the GCC monitoring platform. Is this frontend application in scope for the Digite Partner to build, or does a pre-existing application already exist? If pre-existing, can API specifications or data schemas be shared with bidders prior to proposal submission?	The front end application is not in the scope of the build. The application would be sharing data with BTS with information on the inspection results. The application is currently being built so the API specifications would be available post completion.
3. Scope Boundaries	23	For Crew Management — are there existing labour/union compliance rules we must encode (max consecutive working days, mandatory rest hours, route familiarity, Operator-specific shift policies)?	Crew management would require some capabilities of setting some constraints of rules during the allocation process. The rostering process forms the base of crew allocation to schedules, which would then be updated by the on-ground operations team during on-the-day execution.
3. Scope Boundaries	24	AI conversational layer — LLM strategy: open-source (Llama, Mistral), Indic models (Bhashini / AI4Bharat IndicTrans / Sarvam), or commercial APIs (OpenAI, Anthropic, Gemini)? Given the DPG/cost mandate, is there a steer toward Bhashini / open-weights?	Frontend of the conversational chatbot is out of scope of the RFP, the build needs to support a conversational chatbot with backend API modifications to send the necessary responses from the Journey Planner
3. Scope Boundaries	25	AI conversational layer — hosting model: self-hosted (capex-heavy, GPU infra) vs. API-based (recurring cost)? Any preferred hosting partner — Yotta, AWS Bedrock, or a sovereign-cloud requirement?	Frontend of the conversational chatbot is out of scope of the RFP, the build needs to support a conversational chatbot with backend API modifications to send the necessary responses from the Journey Planner
3. Scope Boundaries	26	AI conversational layer — What is the confirmed language scope for the conversational JP — Kannada / Hindi / English baseline, or wider Indic coverage?	Frontend of the conversational chatbot is out of scope of the RFP, the build needs to support a conversational chatbot with backend API modifications to send the necessary responses from the Journey Planner
3. Scope Boundaries	27	AI conversational layer — Confirm: BTS scope for the AI conversational layer is API-only (chatbot-optimised endpoints) and we are NOT building the WhatsApp/messaging UX itself?	Frontend of the conversational chatbot is out of scope of the RFP, the build needs to support a conversational chatbot with backend API modifications to send the necessary responses from the Journey Planner
3. Scope Boundaries	28	Who owns the WhatsApp Business Account, Meta Cloud API setup, and per-conversation costs for the AI Journey Planner — BMRCL/BMTC/JICA, or us?	Frontend of the conversational chatbot is out of scope of the RFP, the build needs to support a conversational chatbot with backend API modifications to send the necessary responses from the Journey Planner
3. Scope Boundaries	29	The RFP mentions additional use cases/value adds may be considered for additional credits. Should these be proposed within the base commercial bid, or treated as separately priced optional items/change requests?	Additional use cases are the ones that the partner can bring over and above the ones mentioned in the RFP. Should be proposed as part of the base commercial bid
3. Scope Boundaries	30	The portal is described as a mobile responsive web. Please confirm whether any native mobile app development is expected in this phase, or if responsive web is sufficient.	The bus operations portal should be responsive web version. Separate mobile application is not required.
3. Scope Boundaries	31	For WhatsApp integration: do you already have a WhatsApp BSP/provider, or should the digital partner propose one?	The conversational chatbot provider is out of scope of the RFP, assume an agency to be present for the conversational chatbot frontend
3. Scope Boundaries	32	Please confirm languages required for conversational journey planning (English only or also Kannada/Hindi), including transliteration expectations if any.	The conversational chatbot provider is out of scope of the RFP, assume an agency to be present for the conversational chatbot frontend
3. Scope Boundaries	33	For multi-turn context retention: should conversation state be maintained within BTS services, or expected to remain in the chatbot/application layer? Any retention, privacy or policy constraints?	Frontend of the conversational chatbot is out of scope of the RFP, the build needs to support a conversational chatbot with backend API modifications to send the necessary responses from the Journey Planner. Retention is expected to remain within the conversational layer.
3. Scope Boundaries	34	Q1. Can JICA confirm the prioritization of functional modules to be delivered during the Initial Term (by ~August 2026) versus the Subsequent Term? Given the 8-week Wave 1 timeline, clarity on what constitutes mandatory delivery in the Initial Term is essential for accurate bid scoping and pricing.	The scope for the the initial wave 1 deployment is specified in section 6 with the scope of the deliverable within the first 8 weeks
3. Scope Boundaries	35	Q7. Which dashboards listed under the Bus Operations Cockpit are mandatory for go-live in Wave 1 (T+8 weeks)? The implementation timeline references Realistic Travel Time, Frequency Recommendation, and Schedule Adherence, but no explicit mandatory flag is provided.	The dashboards mentioned are extensions of the existing dashboards and are expected to be completed in the 8 week timeframe

3. Scope Boundaries	36	Q13. For the scheduling and allocation modules, is the bidder expected to build planning workflow tools only, or also operational transaction management including live driver and vehicle assignment across depots?	The scope is limited to the planning function, live driver and vehicle assignment is outside the scope of the current RFP
3. Scope Boundaries	37	Q18. For onboarding new public and private mobility partners, what level of responsibility is expected from the bidder — technical integration support only, or end-to-end partner enablement including stakeholder coordination and agency alignment?	Technical integration support and ownership in defining GTFS compliant data standards and data cleansing activities would be expected from the partner. JICA DXLab will facilitate respective authorities and stakholders to make data, including realtimeones, available throughout the contract period.
3. Scope Boundaries	38	Q19. Is the Integrated Journey Planner enhancement part of mandatory delivery in this phase, or limited to selective improvements and integration support on top of the existing build?	Integrated journey planner development would be an enhancement on the existing capabilities. The enhancement capabilities and the integration with conversational AI bots are mandatory deliverables.
3. Scope Boundaries	39	Q20. Can JICA provide a prioritized list of data products, APIs, and dashboards that are considered mandatory deliverables under this phase, as distinct from those that are aspirational or subject to partner availability?	All usecase should be considered as mandatory to be delivered in the timeframe, subject to reasonable assumptions around data being available to support usecases
3. Scope Boundaries	40	Q21. Does public outreach and adoption enablement form part of the core technology delivery scope, or is the bidder's support limited to producing technical enablement assets and documentation?	Partner needs to support with technical enablement in the public outreach and adoptions enablement activities
4. GCC Monitoring Platform	41	The RFP lists indicative infraction categories but states that final penalty rules will be defined in conjunction with the vendor. Will JICA or the Bus Operator provide the actual GCC contractual document, or a sanitized version, to shortlisted bidders before proposal submission so that vendors can accurately scope the rule engine complexity and price accordingly?	The indicative parameters that are typically considered in a Gross Cost Contract are mentioned in section 4.2.2. The Bus Operator Super user should be able to configure rules basis the Input parameters or derived KPIs basis which the actual payouts would get computed.
4. GCC Monitoring Platform	42	The penalty rule engine is required to be open source and configurable without hardcoding. Is there a preferred OSS rule engine framework (e.g., Drools, OpenL Tablets), or is the technology choice left entirely to the vendor?	There is no preference on the technology, the choice of technology is left to the vendor.
4. GCC Monitoring Platform	43	Rule engine choice — RFP mandates open-source, dynamic rule creation, versioning, audit trail, business-user-friendly configuration. Any preference between Drools, Camunda DMN, etc?	No preference from the project team on the technology used for addressing the requirement
4. GCC Monitoring Platform	44	Workflow engine choice for multi-level approvals + dispute resolution + audit trail — Camunda BPMN, Temporal, Flowable, Activiti? What notification channels are expected (email / in-app / WhatsApp / SMS)?	No preference from the project team on the technology used for addressing the requirement. Notification channel can be email or in-app
4. GCC Monitoring Platform	45	Multi-tenancy — Scope for extending GCC platform to other Karnataka cities and pan-India. Should the architecture be multi-tenant from day 1 (one deployment, many tenants), or single-tenant per city (replicable deployment)?	Current solution scope if specifically for Bengaluru, but the overall platform should be extensible to additional cities with the necessary implementation effort considered
4. GCC Monitoring Platform	46	Can we get redacted GCC contract clauses, the ~80 KPI/parameter list (with the 6-7 critical ones flagged for first-wave rollout), and a sample penalty matrix?	The indicative parameters that are typically considered in a Gross Cost Contract are mentioned in section 4.2.2. The Bus Operator Super user should be able to configure rules basis the Input parameters or derived KPIs basis which the actual payouts would get computed.
4. GCC Monitoring Platform	47	For GCC penalty/KPI computation: will the contractual KPI definitions and formulas be shared upfront for estimation accuracy, or only during discovery?	The indicative parameters that are typically considered in a Gross Cost Contract are mentioned in section 4.2.2. The Bus Operator Super user should be able to configure rules basis the Input parameters or derived KPIs basis which the actual payouts would get computed.
4. GCC Monitoring Platform	48	Infractions ingestion: should we assume (a) Excel uploads only, (b) a lightweight web form/app, or (c) integration with an existing front-end app? Any evidence attachments (photos/complaints) and expected volumes?	Infractions can come from any of the sources mentioned, the provision should be made to accept input from the source once that is finalized. The build for the user facing application to capture infractions is out of scope of the RFP.

4. GCC Monitoring Platform	49	Please confirm the expected approval workflow steps and approver roles (Depot/Operator/Central/Finance), dispute handling approach, and audit retention expectations.	Typically the approval would be a 4 step process involving Central Head office, Depot team, Operator Team lead, Operator team. Full details of audit trail for each report would need to be maintained. Provision to be made for 5 year retention minumum, reports / data beyond 2 years can be archived to optimize storage.
4. GCC Monitoring Platform	50	Q5. Will detailed Gross Cost Contract business rules, deduction formulas, KPI definitions, penalty slabs, and approval workflows be provided as finalized, signed-off inputs prior to development, or is the bidder expected to derive and validate these through stakeholder workshops during the engagement?	The business requirement document would be shared with the partner before commencing the development of the GCC monitoring platfrom. There might be minor changes to the same during the course of implementation but a signed off business requirement document would be available. However, the partner is expected to engage with the business stakeholder to understand the functional process and assist with the deployment
4. GCC Monitoring Platform	51	Q12. Should the configurable GCC rule engine be designed as a reusable multi-operator framework to support future contracts as well, or is the scope limited to the GCC contracts currently in operation?	The rules should be designed as a flexible multi-operator setup to enable scaling to different operators and adjust to changes in contract
4. GCC Monitoring Platform	52	Q16. For GCC monitoring, will field inspection data and operational infraction inputs be available through existing applications feeding the BTS platform, or is the bidder expected to design and build new front-end input interfaces?	Infractions can come from any of the sources mentioned, the provision should be made to accept input from the source once that is finalized. The build for the user facing application to capture infractions is out of scope of the RFP.
4. GCC Monitoring Platform	53	Q17. Can JICA clarify the expected approver hierarchy, escalation flow, and target turnaround timelines for GCC approval workflows?	Typically the approval would be a 4 step process involving Central Head office, Depot team, Operator Team lead, Operator team. Turn around time needs to be defined with the business operators but typical approval workflows would not be less than a days turnaround time
5. Technical Architecture & Infrastructure	54	The RFP names RDS (transactional) and S3 (lake), but what powers the analytics/dashboards today — Athena, Redshift, ClickHouse, Trino, Druid, or hand-rolled aggregations on RDS?	A write up of the technical architecture would be shared across with the response
5. Technical Architecture & Infrastructure	55	For the DPG mandate that other states should be able to deploy BTS — must our new components be cloud-agnostic (deployable on Azure/GCP/private cloud), or is AWS-only acceptable since Phase 1 is already on AWS?	The Bengaluru Transport Stack would continue to be housed on the AWS platform. However, preference would be for cloud agnostic components since assets developed would be part of the Master Transportation Stack
5. Technical Architecture & Infrastructure	56	Can we use AWS-managed services (RDS, MSK, OpenSearch, EMR, Glue) for Bengaluru deployment, or do we need self-hosted OSS equivalents (Postgres/Citus, Kafka, OpenSearch, Spark) from day 1 for downstream-deployment portability?	Preference would be for open source options since the Transport stack should not be tied to a specific environment. Even though the BTS platform is on AWS, the platform should remain environment agnostic to support DPI principles
5. Technical Architecture & Infrastructure	57	Confirm: third-party / commercially-licensed engines (e.g., Blue Yonder, Google OR-Tools commercial tier, Drools Enterprise) are acceptable for non-core layers as long as the core BTS data + business-logic layer remains open source per §5.5 and pre-declared per §5.4?	Preference would be for Open-source softwares to be leveraged as part of the platform build
5. Technical Architecture & Infrastructure	58	What are the RPO/RTO targets for DR? RFP §3.3 mentions Route 53 region failover (active-passive multi-region). Do we maintain that, or simplify to single-region active + cross-region backups for cost?	We can consider single region active with cross region backup
5. Technical Architecture & Infrastructure	59	What identity provider is in place today for SSO + 2FA — Keycloak, AWS Cognito, or none yet? Do Operators, contractors come from separate IdPs federated through one broker, or is unified user provisioning expected? Is national identity stack (DigiLocker / eSignet) in scope?	The agencies do not have an IDP, the user management and role allocation needs to happen on platform accounting for 2FA
5. Technical Architecture & Infrastructure	60	For net-new dashboards (Route Optimization, Scheduling & Allocation): is there a preferred optimization engine — OR-Tools, OptaPlanner, custom MILP via Pyomo/CBC — or open to our recommendation?	The approach to address the problem mentioned in the usecases is left to the partners to suggest. No preference in terms of approach.

5. Technical Architecture & Infrastructure	61	Master Transport Stack (MTS) — are common services (auth, API gateway, observability, data-exchange protocol) provided by MTS to BTS, or do we build them locally and contribute upstream? Is Delhi Transport Stack code reusable for us?	Reusable components from the Master transport stack can be leveraged. Additionally, The components are available publicly via the Delhi Transport Stack portal. Bidders are encouraged to explore the portal and integrate reusablemodules into their proposals wherever relevant to accelerate development. Access to the Bengaluru Transport Stack would be provided to the selected bidder
5. Technical Architecture & Infrastructure	62	Current BTS is described as hosted on AWS; Localization requires regional storage (India). Should we assume continued AWS hosting, or is cloud/provider choice open provided India data residency is met?	You can assume continued AWS hosting for the Bengaluru Transport Stack
5. Technical Architecture & Infrastructure	63	Please confirm required environments (dev/test/pre-prod/prod) and whether JICA/BTS will provision cloud accounts/VPCs or the digital partner is expected to.	Current BTS platform has a pre-prod and a prod environment which are expected to continue. The cost for the platforms would be paid basis actuals and are to be included as part of the proposal
5. Technical Architecture & Infrastructure	64	RFP requires user registration, 2FA and SSO. Which Identity Provider (IdP) is preferred/required (Azure AD, Google Workspace, etc.) and are there existing IAM standards to integrate with?	Current Operators don't have IDP in place, the user management and role allocation needs to happen on platform accounting for 2FA
5. Technical Architecture & Infrastructure	65	Q8. Is there an existing enterprise authentication or SSO platform that the solution must integrate with, or is authentication implementation — including 2FA and SSO as referenced in Section 5.1 — fully within the bidder's scope?	Current Operators don't have IDP in place, the user management and role allocation needs to happen on platform accounting for 2FA
5. Technical Architecture & Infrastructure	66	Q11. Does JICA have any preferred observability standard or telemetry framework — for example OpenTelemetry — for metrics, traces, logs, and distributed monitoring across microservices, APIs, and data pipelines?	RFP does not mandate a specific observability standard or telemetry framework such as OpenTelemetry at this stage. The selected Digital Partner is expected to build upon and be compatible with the current foundation in place.
6. Security, Compliance & Data Governance	67	What Indian regulatory compliance regimes apply: DPDPA 2023 (data fiduciary obligations), MeitY cloud empanelment for hosting, CERT-In 6-hour incident reporting, STQC certification?	Digital Personal Data Protection Act (DPDP Act), 2023 CERT-In Cybersecurity Directions (2022 onwards) Information Technology Act, 2000 + SPDI Rules MeitY Government Cloud / GI Cloud ("MeghRaj") Policies Public Records Act / Government Data Retention Norms AI Governance & Responsible AI framework SOC2 Type II / ISO 27001 - Information Security Management System (ISMS) STQC Certification
6. Security, Compliance & Data Governance	68	What anonymisation / aggregation standard is required for PII handling? Ticketing data and JP query logs can leak movement patterns. Is differential privacy expected for published / shared datasets, or k-anonymity / standard aggregation sufficient?	Bidders are expected to describe how they will implement and enforce these standards in their technical proposal, including how suppression rules will be applied at the API layer and how compliance will be audited. Please share what is your detailed plan to keep data secure. You are open to various techniques of handling the dataleaks including differential logs and other methods. For all data published externally through the Data Marketplace or partner APIs: standard aggregation without individual person specific record identification For Journey Planner query logs and ETM ticketing data: personal identifiers (device ID, user ID, payment credentials) must not be stored on the BTS platform. Individual level OD requests should not be retained For internal operational analytics (Bus Ops Cockpit, GCC dashboards): role-based access controls apply
6. Security, Compliance & Data Governance	69	VAPT cadence — per release, quarterly, or annual? Is it conducted by us or a third party? Are remediation timelines part of our SLA?	VAPT is done before a major release, the same can be assumed for the contract duration

6. Security, Compliance & Data Governance	70	Data localisation — RFP says India-only. Does this allow multi-region within India (e.g., AWS ap-south-1 + ap-south-2) for DR, or is single-region the expectation? Are private-cloud / sovereign-cloud requirements (e.g., MeghRaj, Yotta) in play?	Data residency in India is a requirement. Data may be allowed to be kept in multiple regions within India for high availability.
6. Security, Compliance & Data Governance	71	For ETM rider-level data: please confirm privacy constraints, anonymization expectations, and whether any consent/data protection requirements apply for analytics.	Data specificaltions for ETM data needs to be finalized in discussion with the platform owner. Personal identification data is not required on the BTS platfrom and should not be brought on. Other data security guidelines as specified by the law is to be followed.
6. Security, Compliance & Data Governance	72	For multi-tenancy and RBAC: is a “tenant” defined per agency, per operator, or another grouping? Are there any cross-tenant data sharing requirements?	Tenant in this context can be defined as a city, with role segregation for each operator and profiles within them. Cross tenant data sharing is not required.
6. Security, Compliance & Data Governance	73	Please confirm whether user identity will be available to support personalization, and whether consent requirements apply for “nudges” based on historical searches.	Anonimized user identity would be avialble within the conversational chatbot, consent requirements would be handled by the conversational chatbot partner
7. Evaluation Criteria & Eligibility	74	The RFP requires at least 2 projects in the urban mobility sector including bus/metro operators. Will projects involving fleet management, real-time vehicle tracking, operational dashboards, or multimodal transport data platforms for non-bus operators be considered under the mobility category? If so, what is the minimum threshold of relevance for such projects to qualify?	The relevance would be assessed on a case to case basis, but the projects would be considered as relevant if there are enough functional overlap between the presented usecases and the usecases in RFP
7. Evaluation Criteria & Eligibility	75	The Domain Expert role references certifications such as ITDP, NACTO, and IRSE. Will equivalent demonstrated experience in transport operations, policy, or data-driven transport planning — without formal certification — be considered during evaluation, and if so, how will it be scored relative to certified candidates?	Certifications are one component of the scoring guidelines provided to the evaluators, demonstrable experience, and relevant projects would also contribute to the overall score
7. Evaluation Criteria & Eligibility	76	The scoring for 'Availability of Reusable Components' references enabling data products. Should bidders demonstrate accelerators against the full BTS scope, or specifically against the data products listed in Section 4? Additionally, does proprietary internal tooling qualify, or must accelerators be open source to be scored?	"Accelerators" are pre-built technical components such as: - Algorithms - Connectors (e.g., GTFS converters) - Dashboards (even if with sample data) To qualify, they must be production-ready or have been used in previous deployments. Documentation must include:- Technical specs and architecture- Deployment history (where, how)- Description of functionality and data types handled
8. Process, Governance & Submission	77	The RFP specifies a 70-page limit per submission file. Does this limit include the mandatory Attachment 1 forms and the 5 project execution case reports, or do these form separate annexures outside the page count?	The overall submission should be limited to 70-pages
8. Process, Governance & Submission	78	Knowing that there are quite a few compliance artefacts requested, will the date of submission be extended?	Timelines are published along with the RFP
8. Process, Governance & Submission	79	Are the wave deadlines hard contractual milestones attracting penalties, or planning targets subject to revision?	The deployment timeliens mentioned in the RFP are tied to the payment milestones and the specified scope
8. Process, Governance & Submission	80	What is the defined SIT/UAT process and the maximum calendar days allowed before sign-off is deemed given?	UAT would be done by the business users, assume a 4 week period for UATs for major delivery milestones
8. Process, Governance & Submission	81	What is the expected hypercare duration per wave ?	Maintenance timeline of the platform and the associated data products are as per the duration of the contract
8. Process, Governance & Submission	82	How stringent are the complaince requirements, will there be any exceptions or felxiblity created or given for any of the demands mentioned in the RFP ?	Compliance requirements are sacrosanct unless otherwise mentioned in the RFP

8. Process, Governance & Submission	83	Please confirm whether the wave timelines (T+8/12/16/32 weeks) are fixed, and whether any use cases are “must-deliver” vs. “best-effort” if blocked by data availability.	The wave timelines mentioned in the RFP are fixed, all delvierables should be finished within the timelines. Cases of data availability challenges would be assessed on a case to case basis
8. Process, Governance & Submission	84	Please confirm repository governance on the Master Transport Stack GitLab (branching strategy, review/approval process, CI requirements, and who approves mergers).	Master Transport Stack repository governance is out of scope of the RFP, the repository would be managed by a separate custodian
8. Process, Governance & Submission	85	Is there a preferred open-source licensing policy for contributions (e.g., Apache 2.0/MIT) and any restricted licenses to avoid?	Governing principle, as stated in the RFP, is that all custom-developed components must be fully transferable to JICA DXLab with no restrictions on reuse, adaptation, or future deployment by JICA or its designated successor partners. Bidders should avoid any licence that could constrain JICA's ability to reuse, modify or redistribute the codebase without triggering downstream licence obligations
8. Process, Governance & Submission	86	For the password-protected commercial PDF, do you have a preferred secure protocol for sharing the password (separate email, call, etc.)?	The commercial quote should be password protected. The password would be asked for from the qualified bidders post the technical presentation on mail. Please share the password on mail once you receive the request for the same.
9. NFRs & Performance SLAs	87	What is the uptime SLA target — 99.5%, 99.9%, 99.95%? Should it differ per service tier (citizen-facing JP vs. internal cockpit vs. partner APIs)?	Citizen-facing services should have an uptime of 99.9%; while the operations dashboards and other applications for Operators should have 99.5%
9. NFRs & Performance SLAs	88	What are the P95/P99 API response-time SLAs for each consumer-facing surface — Journey Planner, Data Marketplace APIs, Cockpit dashboards, and GCC report generation?	Here are some standard benchmarks we should aim for: Response for Citizen facing application: 1. P95: ≤ 2 seconds for a standard single-modal or two-leg journey query 2. P99: ≤ 4 seconds for complex multi-modal, multi-transfer queries Response for Operator facing applications: 1. P95: ≤ 5 seconds for a standard dashboard load and KPI render 2. P99: ≤ 10 seconds for more heavier dashboards like GCC platform
9. NFRs & Performance SLAs	89	What is the maximum acceptable latency for real-time data — GPS ping → ingested → published GTFS-RT/JP API?	Maximum allowable latency if 5secs for API response for real-time feeds
9. NFRs & Performance SLAs	90	Volumetrics — please confirm or provide: number of buses, daily GPS pings, scheduled trips/day, ETM transactions/day, current cockpit concurrent users (peak), JP API QPS (current + projected), and historical retention horizon (analytics vs. audit).	Plan for the below indicative numbers: Bus count: 10,000 Trips per day: 10 GPS pings: 1 ping every 10 secs from all busses Operations dashboard concurrent users: 35
9. NFRs & Performance SLAs	91	What are the growth projections over the contract horizon — Bengaluru-only steady state, or onboarding additional cities/agencies during this engagement?	Scope of the RFP is limited to Bengaluru
9. NFRs & Performance SLAs	92	Please confirm target SLAs for uptime and API response times for “critical services,” and any measurable thresholds expected for acceptance.	Citizen-facing services should have an uptime of 99.9%; while the operations dashboards and other applications for Operators should have 99.5%
9. NFRs & Performance SLAs	93	The RFP references high unit test expectations and quality gates, and also mentions different coverage levels in different areas. Please confirm the minimum unit test coverage threshold to be used for acceptance.	The minimum unit test coverage threshold for acceptance purposes is >80%, enforced as a hard quality gate on all production-bound code. Separately, a target of 90–95% coverage is expected for incremental new code changes as part of the CI/CD pipeline.
9. NFRs & Performance SLAs	94	Browser support includes IE11 alongside modern browsers. Please confirm whether IE11 support is mandatory for the portal/dashboards.	IE11 support needs to be accounted for
9. NFRs & Performance SLAs	95	Q9. For near real-time dashboards, what is the expected data refresh interval and acceptable end-to-end data latency from source system to dashboard display?	Refresh cadence for dashboards would depend on the use case and would be decided on a case to case basis. But the underlying data needs to be updated with a maximum of 5 sec latency for Live GTFS datafeeds

10. Contractual & Commercial Terms	96	Please confirm that actual AWS hosting and infrastructure subscription costs are borne directly by JICA or the Government of Karnataka, and are not expected to be included within the Digital Partner's 'Software, tools and licenses cost' in the commercial bid.	The actual cloud hosting fees for the duration of the contract is to be paid by the Vendor. The payment of the cloud fees is to be done basis the submission of the actual invoices.
10. Contractual & Commercial Terms	97	If JICA chooses not to extend the contract into the Subsequent Term after the Initial Term, what are the payment obligations for work completed during the Initial Term? Milestone 5, which carries 30% of total payment, is tied to full handover at project end — this creates a commercial risk for the Digital Partner if the contract does not proceed to completion.	JICA retains the rights to terminate the contract after the Initial Term after providing the necessary notice period. The payout would be tied to the milestones achieved and would be evaluated on a case to case basis
10. Contractual & Commercial Terms	98	Section 8(h) requires the outgoing partner to provide need-based knowledge support for one year after the 8-month contract ends. Should the cost for this post-contract support period be included in Form 1.8 (Commercial Bid for build, license and support and maintenance), or is it expected to be provided at no additional cost?	The support expected from the team is only in terms of clarifications in case of a failure and lack of proper documentation. This does not cover any new build or feature clarification. This is expected to be extended at no additional cost.
10. Contractual & Commercial Terms	99	Is there an annual cloud + license recurring-cost ceiling, or a Phase-1 benchmark we should stay under? Even an order-of-magnitude target (e.g., '<$X k/year') would help.	The operate cost should be kept at a minimum and the overall commercial viability would be judged from a 3-year Total Cost of Ownership view
10. Contractual & Commercial Terms	100	How many months of AMS/support should the vendor include in the total bid ?	The contract duration is mentioned in the RFP, the operate cost for the platform should be shared in case there are components used in the solution that attract license cost
10. Contractual & Commercial Terms	101	Whether cloud costs are included in bid or borne separately by JICA	The actual cloud hosting fees for the duration of the contract is to be paid by the Vendor. The payment of the cloud fees is to be done basis the submission of the actual invoices.
10. Contractual & Commercial Terms	102	The RFP references Initial Term and Subsequent Term (including possible consultant transition). Please confirm how you prefer commercial pricing to be split across Initial vs Subsequent Term and which commercial form applies to each period.	The commercial quote needs to be shared as per the template shared in Form 1.7 and Form 1.8 for the Intial and Subsequent terms
10. Contractual & Commercial Terms	103	Please confirm acceptance signatories for each payment milestone and whether partial acceptance per use case is permitted.	The JICA designated partner would be the authority for the confirmation of a deliverable as mentioned in the RFP
10. Contractual & Commercial Terms	104	Q10. Is the bidder expected to provision and fund cloud infrastructure costs (noting that the existing BTS runs on AWS), or are infrastructure and hosting costs borne separately by JICA or the client? If the bidder is expected to include these in their commercial bid, could JICA share indicative current infrastructure sizing and monthly spend to enable accurate costing?	The actual cloud hosting fees for the duration of the contract is to be paid by the Vendor. The payment of the cloud fees is to be done basis the submission of the actual invoices.
10. Contractual & Commercial Terms	105	Q22. If additional use cases emerge during implementation, what will be the formal scope governance and change request mechanism, and will out-of-scope additions be compensated separately?	Functional scope as defined in the RFP would cover the build requirements in the current phase. Section 4.2.5 makes provision for some usecases that would need additional definition in course of the build by engaging with the respective agencies.