



ASRTU's TENDER

FOR

ANALYTICS AND DATA VISUALIZATION IN
SRTUs

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ABOUT ASSOCIATION OF STATE ROAD TRANSPORT UNDERTAKINGS (ASRTU)

Association of State Road Transport Undertakings (ASRTU) came into existence on 13th August, 1965 to bring together all the State Road Transport Undertakings on a common platform with the aim of pooling their resources and for dealing with various problems faced by them and help them to improve their performance. Association of State Road Transport Undertakings is an apex coordinating body working under the aegis of Ministry of Road Transport & Highways Govt. of India. ASRTU has 71 members collectively operates 150,000 buses and serve 70 million passenger a day and provide efficient, economic, safe and reliable public transport facility in urban, hilly and rural areas across the country. Employee

1. DATA VISUALIZATION (BUSINESS INTELLIGENCE (BI) & ANALYTICS)

ASRTU intends to introduce BI & Analytics to address the critical issue of Operating buses everyday by adopting state-of-art technologies and provide value added services making travel attractive, convenient and comfortable, to encourage the usage of bus services instead of individual personal vehicles.

Significant model shift is needed to deliver national and international sustainable development for a strong economy, an inclusive society and a clean environment. With the rising cost of fuel, many would shift to the public transport on cost considerations while for some time is of essence and a model shift will occur only if the new mode offers time improvements. ASRTU aims to bring about this shift by improving the perceived image of its services.

The overall scope of the project implementation will consist of design, development, testing, installation, commissioning, training, operations, and management of facilities by the eligible bidder. This project is planned with BI & Analytics, Establishment of Operational, Financial, Maintenance Dashboards, Statistical and predictive modeling etc.

BI & Analytics will cover core systems such as different databases maintained by SRTUs.

On implementation of this project, SRTUs should be able to use it as a digital decision support system and also as near Real-time governance.

1.1 Benefits of introducing Data Visualization (BI& Analytics)

Building intelligence into the transport system brings in the convergence of technologies providing a synergetic transformation in the commuter experience. BI & Analytics provides benefits in terms of increased efficiency and cost leadership.

1.1.1 Operations

- Productivity gains: increased passenger trips, capital savings, lower annual maintenance costs and generally a lower vehicle cost per KM & Cost Leadership
- Labor savings: reduced need for additional supervisors and manual data entry
- Improved ability to control bus operations as well as better monitoring of crew performance

- Effective monitoring of resources i.e. vehicles & manpower
- Improved schedule adherence, accuracy in schedule adherence monitoring and increased operations coordination
- Increased passenger base

1.1.2 Communications

- Seamless communications between MDs of SRTUs and respective level of officers in SRTUs
- To Serve as a decision support system for the Organization personnel from Top management to Depot Managers
- Over all organization view for Top management, relevant fields for middle level management and respective regions for rest of the authorities

1.1.3 Scheduling and Planning

- Provides accurate data for scheduling and planning (The data obtained from the BI & Analytics system to be utilized for proper scheduling for which the bidder shall design suitable software under this project only).
- Time related correlations across the board.
- Near real time reports with immediate actions oriented decision support.

The BI & Analytics will result in higher efficiency and productivity for SRTUs and increased customer satisfaction for the commuters and it benefits SRTUs, Society and Environment.

The suggested solution should be an excellent decision support system and should benefit relevant stake holders:

Benefits to SRTUs

- a) Improves Conductor & Driver efficiency. Evidence based feed back to them with training as and when required.
- b) Fuel efficiency – Monitoring of vehicle performance is done on a continuous basis to ensure optimum performance of the vehicle and ascertain driver performance.
- c) Should help in reducing operational costs
- d) Optimization and standardization of routes/trips.

Benefits to Society

- a) Optimal Fuel Usage.
- b) Reduce waiting time and efficient operations.
- c) Improve economic productivity
- d) Increase accessibility of Public Transport
- e) Efficiency Public Transport during peak times

Benefits to Eco System

- a) Reduce vehicle emissions
- b) Traffic congestion reduction
- c) Reduced number of private vehicles (Illegal operators) on road with better service and acceptance of Public Buses
- d) Seamless integration with Traffic Municipalities, Roads Department and also with relevant Government eco system.

2. BROAD OBJECTIVES OF DATA VISUALIZATION

The main objective of the project is to have a set of comprehensive, integrated corporate Dashboards for the management by using a BI and Analytical solution that would enable SRTUs leadership and management to view the information in actionable analytics to gain rational approach for making timely and better decisions ensuring continuous improvement across the organization. The dashboards should be able to combine data from various systems in SRTUs into a unified single or multiple dashboards and interlink the related KPIs/Metrics/Indicators intuitively on these dashboards.

EXPECTED DELIVERABLES:

SRTUs will have wide range of Operational & Financial metrics that arise out of multiple islands of systems. These are required to be presented to the various Executives and Stakeholders in form of visually intuitive & interactive dashboards.

The solution should be able to integrate/connect multiple systems, summarize, aggregate and present them visually. It should comprise of Operational & Predictive Analytics, ability to forecast outcomes, based on historical data.

3. OVERALL SCOPE OF DATA VISUALIZATION (BI& ANALYTICS):

The overall scope of the implementation will consist of design, development/customization, testing, installation, commissioning, training, operations, and management of facilities for a period of five years(01 year under warranty + 04 years under AMC).

The works mentioned below are indicative but not exhaustive:-

The overall scope outlines the consultation and development services to be provided to the State Road Transport Undertakings through Rate Contract of ASRTU (hereinafter referred to as "SRTUs") by a qualified company (hereinafter referred to as "the Vendor") to install, develop and implement Operational & Statistical Dashboards. The purpose of this document is to outline the requirements for the SRTUs Statistical dashboard project through an external consultancy, which must be aligned with SRTU's current strategic plan and operational activities.

ASRTU is seeking the services of a professional company with relevant experience to provide a comprehensive solution (Software Licenses, Implementation Services, Training and Support) in this context to SRTUs.

3.1 THE IMPLEMENTER SHOULD PROVIDE AN OFFER TO ASRTU WITH CLOUD HOSTING

Cloud Hosting scope of work

The overall scope outlines the consultation and development services to be provided to the Association of State Road Transport Undertakings (hereinafter referred to as “ASRTU”) by a qualified company (hereinafter referred to as “the Vendor”) to install, develop and implement Operational & Statistical Dashboards. The purpose of this document is to outline the requirements for the ASRTU Statistical dashboard project through an external consultancy, which must be aligned with ASRTU’s current strategic plan and operational activities.

ASRTU is seeking the services of a professional company to provide a comprehensive solution (Software Licenses, Implementation Services, Training and Support) in this context.

- i. The implementer should provide SRTU with:
 - The recommended solution, its capabilities, design & architecture
 - The capability of the proposed solution should meet ASRTU current needs and accommodate future expansions; in terms of content size and structure, and the flexibility of customization.
 - An overview of the activities necessary to implement the solution and the level of engagement from ASRTU side.
 - Project initial plan, including requirements gathering, analysis and KPIs, implementation, and deployment.
 - Supply, Installation, testing and commissioning of BI & Analytics Platform and required servers and their maintenance during the entire contract period.
 - Specialized centralized database server for reporting purposes and also one for the back-up.
 - Web-based - To be accessible through different browsers like Chrome, IE, Firefox, Safari
 - Should have unlimited user licenses for viewing as well as analysis
 - Architecture should have a BIG-DATA layer along with suggested components which needs for the current and future requirements
 - Predictive analysis basing on the last 3/5 years historical data which will display future operational suggestions which includes Personal and logistics deployments and
 - Extensive chart options - Intuitive charting options for KPIs, Metrics & Statistical Information
 - System shall support remarks in each chart and it can be printed as a report format.
 - Modifying the charts based on the user access (i.e. change themes, appearance etc.)
 - Charts shall be in printable formats with detailed information.
 - Gallery view of Dashboards with image previews
 - Presentation-style charts – Support for rich media like videos, images and text
 - Should support wide range of maps & customized graphics
 - Native Apps for IOS and Android Tablets/Smart phones
 - Should be HTML5-enabled and be automatically rendered as HTML5 on mobile phones

- Ability to run on multiple platforms - Windows, Mac, Linux, Android, iOS
 - Ability to correlate and interlink between charts from different data sources.
 - Any changes in one section must reflect in the other related section.
 - Unlimited drill up/down to charts, dashboards and links
 - Support for Filters, Parameters, Expressions and Ad-hoc calculations
 - Support to have “What-if” scenarios
 - Ease of Use – Users should be able to develop dashboards with minimal or no programming
 - Re-usability – Re-use charts in multiple dashboards
 - Render on different screens – Smart phones, Tablets, Workstations, (Smart) LCDs/LEDs etc.
 - Enterprise-class security – Users, Groups, Roles, Categories, Access control permissions etc.
 - Should support data-level filtering
 - Compatible with intranet portals and websites – ability to embed within portals and websites.
 - Special LCD/LED views for executives on large screen HD TVs
 - Ability to share dashboards via public/web links
 - Data from different sources into a single Platform/Dashboard.
 - Multiple databases support and integration.
 - Live-Map support - with the ability to super-impose custom graphics on maps
 - Instant Reporting - One-Click Reports
 - Alerting Capabilities through SMS or EMAIL
 - Balanced score-card Dashboards with requisite Drill up/down features for MD and top management
 - Security features like authorization, Authentication, Encryption or Layered Security has to be maintained along with audit logs
 - Operation, Training and Support for the entire contract period.
- ii. The successful bidder shall Design, Procure all the required Cloud Server, software, Build, Configure, Test, Implement, Commission, Operate, Manage and Maintain the BI & Analytics solution during the contract period, provide training to ASRTU manpower. The bidder should also deploy manpower for regular transmission of the information at data center and for maintenance of all the Hardware, System and Application Software etc., for the complete contract period. The existing internet connection at Depots will be used for feeding the meaningful data etc.
- iii. The successful bidder should present DEMO/POC in 7 working days from the day of technical bid opening.
- iv. The successful bidder should be ready with the implementation framework.
- v. The source code and original have to be submitted by the successful bidder.
- vi. The BI & Analytics must meet the essential criteria (a) Availability; (b) Accessibility; (c) Assessment; and (d) Acceptance to assure ASRTU the acceptance of the system by different stakeholders. The key stakeholders are operating staff & management of ASRTU.**

- vii. Proposed system should increase the efficiency & effectiveness of public transport.
- viii. The successful bidder shall organize training classes to all the depots IT team about the complete functioning of the Bi & Analytics i.e., all operations, reporting, monitoring etc., to designated officials of ASRTU. The training schedule and program will be mutually decided by ASRTU and successful bidder.
- ix. The successful bidder shall provide support in daily operations of BI & Analytics, hardware, software, connectivity related problems occurring at depot/bus station level. Necessary training should be provided to designated ASRTU personnel to enable them to carry out these activities.
- x. Successful bidder shall capture the data from the database installed in the depots and immediately store it in Cloud server. It will be the responsibility of the bidder to ensure consolidated monthly data backup of all depots at Data Center.
- xi. Successful Bidder should provide adequate technical manpower for successful working of BI & Analytics. The salaries, perquisites, allowances etc., for the employees should be borne by the Bidder only. Such manpower employed by the Bidder should not be considered as employees of ASRTU and they should not claim any Job benefits in ASRTU in future.
- xii. The successful bidder shall prepare all necessary documentation for the project.
- xiii.**It would be the responsibility of the successful bidder to provide high end, high capacity cloud server and software to provide the quality of service desired/required by the ASRTU. **The cloud server hardware and software should be** able to meet the current and near future requirements of ASRTU.
- xiv.**It will be the full Responsibility of the Successful Bidder to Provide Complete backup of all Developed/Used Application Software (latest & updated version) and whole Database of the complete project period.
- xv.** It will be the responsibility of the successful bidder to hand over all the project material in working & operational condition whenever ASRTU asks for.

3.2 GENERAL REQUIREMENTS OF SRTUS

A) SOFT WARE REQUIREMENTS:

- 1 Route wise profitability statement
- 2 Service wise profitability statement
- 3 Trip wise profitability statement
- 4 Product wise profitability statement
- 5 No. of passengers boarding & alighting at each stage in every trip.
- 6 Performance should be shown as day - wise, week wise, month wise and Thidi wise. (As desired by the concerned SRTU).
- 7 Bus pass element should be shown in the performance report i.e. No. of pass holders

etc.

- 8 Subsidy amount has to be added in conductor wise EPK report and driver wise EPK report.
- 9 Monthly season tickets amounts also to be calculated in conductor and driver wise performance reports.
- 10 Concessional cards should be shown separately.
- 11 Comparison with incentive target and Break even target.
- 12 No. of deviations, No of double duties.
- 13 Driver wise EPK vs KMPL report.
- 14 Cause wise cancellation
- 15 Trip wise EPK and OR in addition to Earnings and Kms.
- 16 Time delay services performance
- 17 Accidents particulars date wise.
- 18 Trip wise cancellation
- 19 Alert message on achievement of break even and Targets.
- 20 Service wise performance - type wise S/off, D/out, N/out & Single crew
- 21 Report on special/rural services who achieved less than the given target.
- 22 Average productivity in Hrs. and Kms for service.
- 23 Key wise profitability.
- 24 Route wise Conductors performance from highest to lowest
- 25 Route wise drivers KPK & KMPL performance from highest to lowest
- 26 Day summary - shift wise and profitable and unprofitable services
- 27 Stage wise consumption of tickets- daily, service wise, route wise, sector wise, depot wise and division/region wise.
- 28 Common sectors frequency, departure timings
- 29 Inter depot, Inter Zonal performance in the depot.
- 30 Service wise, route wise, trip wise 'from' and 'to' date performance.
- 31 Key wise performance comparison of drivers/conductors.
- 32 Other Duties (OD) muster of drivers & conductors.
- 33 Driver and conductors - matching staff no and phone no.
- 34 List of short remittance.

- 35 Loss per seat, Loss per Km.
- 36 Trip wise, stage wise ticket consumption
- 37 Product wise performance.
- 38 No. of Offs per work day
- 39 Off wise performance of conductors
- 40 Toll plaza amounts and toll fee paid
- 41 Targets vs Actuals - Route wise and service wise
- 42 Actuals vs Actuals - Route wise and service wise
- 43 Trip wise breakeven and Stage wise breakeven
- 44 Hire buses performance with RTC buses comparison
- 45 Long distance services performance
- 46 Special type service performance
- 47 Police warrants details statement
- 48 Performance of city services
- 49 Issue of tickets through current booking
- 50 Checking of TTIs is report - Route wise and service wise
- 51 How many services were checked and one service how many times checked
- 52 Extra operations particulars
- 53 Service wise cancellation statement

The list of requirements from Mechanical Engg. Deptt.(MED)

1. Fleet Held:

Must display in the given format i.e.AC & Non AC Mouffisil fleet (RTC & HIRE), AC & Non Ac City Fleet (RTC & HIRE) and AC & Non AC total fleet (RTC & HIRE) for product wise, make wise engine wise with vehicle numbers at each stage at corporate level, region level and depot level (in suitable required formats of SRTUs).
2. Product wise and make wise fleet held as on date required for RTC/HIRE/TOTAL at corporate level, zonal level, region level, depot level with vehicles no's.
- 2b. Display to fleet operated on Ghat/Hilly routes as on date product and make wise required for RTC/HIRE/TOTAL at corporate level, zonal level, region level, depot level with vehicle no's.

3. Type wise schedule, spares and held vehicle for both RTC, HIRE & TOTAL with split in product wise in AC & Non AC in the format at corporate level, zonal level, region level, depot level with vehicle no's (in suitable required formats of SRTUs).
4. Age profile of vehicles in KMs covered and years of operation completed for total fleet and product wise in the format at corporate level, zonal level, region level, depot level with vehicles nos (in suitable required formats of SRTUs).
5. Requires product wise vehicles due for replacement at all levels.
6. Buses inducted in the last 5 years product wise make wise with vehicle no's by augmentation/replacement at corporate level, zonal level, region level, depot level with vehicles no's.
7. MED Parameters for HSD, KMPL, BD Rate, MED Cancellation, Total Tyre life %NTS and MED CPKs with comparison for & upto with previous year at corporate level, zonal level, region level, depot level with vehicles no's.
8. HSD KMPL trends for excluding AC including AC & AC for last 10 years at corporate level, zonal level, region level, depot level with vehicles no's.
9. HSD KMPL for including AC, for CY to LY and upto CY to upto LY comparasion for the required period for products wise make wise engine wise with vehicle wise kmpl at corporate level, zonal level, region level, depot level with vehicles no's.
10. HSD KMPL for Excluding AC for CY to for LY and upto CY to upto LY comparison for the required period for product wise, make wise , engine wise with vehicle wise kmpl at corporate level, zonal level region level depot level, with vehicles no's.
11. HSD KMPL trends in AC buses for product wise make wise engine wise at corporate level, zonal level, region level, depot level.
12. Monthly HSD KMPL trends in including AC for product wise, make wise engine wise at corporate level, zonal level, region level, depot level.
13. Monthly HSD KMPL trends in Excluding AC for product wise make wise engine wise at corporate level, zonal level, region level, depot level.

14. Monthly HSD KMPL trends in AC buses for product wise make wise engine wise at corporate level zonal level region level depot level.
15. Product wise KMPL with for to for LY & upto upto LY with fleet held for a given period at corporate level, zonal level, region level, depot level.
16. Make wise KMPL with for to for LY & upto to upto LY with fleet held for a given period at corporate level, zonal level, region level, depot level.
17. Product wise and make wise kmpl comparison for a given period at corporate level, zonal level, region level, depot level.
18. Product wise monthly kmpl & fleet of region comparing with previous year for & upto.
19. Range wise hsd kmpl of drivers for upto & LY upto at corporate level, zonal level region level depot level. Bar Charts also to be prepared for range wise drivers (in suitable required formats of SRTUs).
20. Range wise hsd kmpl of product wise vehicles for upto and LY upto at corporate level, zonal level, region level, depot level. Bar charts also to be prepared for range wise vehicles (in suitable required formats of SRTUs).
21. Classification of depots on HSD kmpl Excluding AC & including AC at corporate level, zonal level region level, depot level, duly preparing 20 highest hsd kmpl depots, 20 lowest hsd kmpl depots, 20 highest improvement & 20 highest drop in hsd kmpl depots has to be prepared (in suitable required formats of SRTUs).
22. Breakdowns & B.D.Rate for CY to for LY and upto CY to upto LY comparison for the required period at corporate level, zonal level, region level, depot level.
23. System wise break down for Cy fo for LY and upto CY to upto LY comparison for the required period at corporate level, zonal level, region level, depot level.
24. MED Cancellation for CY to for LY and upto CY to upto LY comparison for the required period at corporate level, zonal level region level depot level.
25. Cause wise MED cancellation for CY to for LY and upto CY to upto LY comparison for the required period at corporate level, zonal level region level depot level.

26. Spring consumption per 1 Lakh kms for CY to for LY and upto CY to upto LY comparison for the required period at corporate level, zonal level region level depot level.
27. All type parameters i.e., Total tyre life, new tyre life RC tyre life, %NTS, ^{1st} RC scrap rate total tyre scrap rate RT factor for Nylon and Radial tyres size wise (9'20 to 10'20 & Tube less) for CY to for LY and upto CY to upto LY comparison for the required period at corporate level, zonal level region level depot level (in suitable required formats of SRTUs).
28. All work shop parameters i.e. Units Consumption per 1 Lakh Kms, Service Level (Work Shop wise & Region wise) performance of major units (make wise TATA, AL Eicher TVS etc.) for workshop level and region level section wise PELs of work shop wise unit wise premature failures summary (work shop wise) details of the bus body repairs by O/S and by RTC staff (Work Shop wise) work shop CPKs for & upto (depot/Region wise).

LIST OF REQUIREMENTS FROM PERSONNEL DEPARTMENT

S.No.	Requirement.
1	Staff position statement (current month actual Vs previous month) including requirement of staff as per norm/slab
2	Justification statement for variation in staff actual (i.e. list of incoming & outgoing employee)
3	Staff turnover periodical
4	Appointment made periodical
5	Regional staff position
6	List of incoming and outgoing employees at regional office staff turn-over /appointment made periodical
7	Zonal level staff position
8	State level staff position
9	Generation of crew report at depot/region zonal corporate level
10	Statement of employee wise leave balances (CL.EL.HPL –MC, HPL-PA) (Monthly statement)
11	Monthly leave report (employee wise and date wise leave availment particulars for the muster period at the depot)
12	Statement showing the employee wise month wise attendance particular
13	Statement HPL MC HPL PA added during the muster period for the completed year
14	Check list of increments
15	Month wise increments due list of employees in calendar year

16	Check list of punishments
17	List of employee due for 12 yrs special grade/20 Years Special grade OR as per requirement of concerned SRTU
18	List of drivers due for PME for the month OR as per requirement of concerned SRTU
19	List of drivers due for {PME during the year (Below 45 and above 45 years) OR as per requirement of concerned SRTU
20	List of drivers who attended PME during the year(Below 45 and above 45 years) OR as per requirement of concerned SRTU
21	List of employee due for retirement in a specific period (category wise)
22	List of employee due for retirement in specific period (date wise)
23	Bio-data of individual employees with transfer particulars
24	List of employee due for declaration of probation
25	List of employee due for conformation.
26	SC ST periodical (annual) OR as per requirement of concerned SRTU
27	Caste sub caste details list of employee
28	Caste wise count report
29	Minorities periodical (quarterly)
30	Required designation wise employees list
31	Long standing employee list
32	Man days lost report (Monthly report)
33	Age profile of employee
34	Education qualification profile of employee
35	Voters List
36	PMS Blank report OR as per requirement of concerned SRTU
37	LSA REPORT for last 12 months OR as per requirement of concerned SRTU
38	LSA report for the year OR as per requirement of concerned SRTU
39	Category wise /Unit wise designation wise employee list
40	Statement showing the date of birth details for all employee
41	Suspension Periodical
42	Section wise list of Regular employee list
43	Payment of stipend to the apprentices
44	Employee wise punishment history
45	Employee wise transfer particulars history
46	Employee wise LWP/ABS/SUS and punishment particulars
47	Statement of suspended employee list

48	Employee wise service record particulars
49	Employee dependent's data particulars
50	Employee wise nominations details
51	List of employee with the accident particulars
52	List of employee with C&T irregularities

B) Store purchase Deptt.(SPD)

DESCRIPTION	RTC REPORT NAME	TALLIED
DAILY REPORTS		
Invalid items statement (during updation)	Updtitem.rpt	
MONTHLY REPORTS		
Vehicle wise items issue Statement	Vehiss.rpt	
Vehicle wise items Issue Summary Statement	Vehissum.rpt	
Vehicle wise last 12 months consumption Statement	vcon12.rpt	
Essential Items Statement	essential.rpt	
Item wise and vehicle wise issue statement	Itemiss.rpt	
Item having with maximum value statement	maxitem.rpt	
Items discrepancy Statement	27 rdiscrp.rpt	
Items individual Consumption Report	Indanal.rpt	
On line items balance query report	balquer.rpt	
On line vehicle wise issues query report	vehquer.rpt	

These are broad requirements and it may increase.

4. COMPONENTS OF DATA VISUALIZATION (BI & ANALYTICS)

The main components of business intelligence & Analytics are data marts, business analytics, business performance management and user interface.

Data marts holds data obtained from internal sources as well as external sources. The internal sources include various operational systems.

Business analytics creates a report as and when required through queries and rules. Data mining is also another important aspect of business analytics.

Performance management is a linkage of data with business objectives for efficient tracking. This business performance is then broadcasted to an executive decision-making body through dashboards.

5. TENDER MODEL

Tenders are invited for BI and Analytics Platform Implementation. The bidders are expected to provide the most attractive prices addressing the tender requirements for ASRTU consideration. The bidding process will be a two stage process. Initially the technical bids of all will be evaluated and only qualified bidders commercial bids will be opened. The bidders whose prices will fall between the price band fixed by the ASRTU's Standing Committee(S&C) will become eligible for the contract.

6. ELIGIBILITY CRITERIA FOR BIDDERS

The following are the conditions, which are to be necessarily fulfilled, to be eligible for consideration. Only those interested bidders who satisfy the following eligibility criteria should respond to this Tender:

Technical Qualification:

- i) The bidder should be a registered company under Indian Companies Act.
- ii) The bidder should have his own team of qualified professionals to design, develop and implement Data Analytics solution for SRTUs.
- iii) The bidder should have minimum three years of experience in Data Analytics or Software Development Solution procurement, implementation, maintenance and capacity building.
- iv) The bidder must have done at least one Data Analytics Project in any government

organization/PSUs/Undertakings in India.

Financial Qualification:

- i) The Bidder shall have turnover minimum Rs. 5 crores in each year for the last three financial years. (The turnover from similar projects or/and Software development will be considered).
- ii) The Net worth as of March 31st 2017 of the Bidder should be greater than Rs. 1.0 crores.

The Bidder must submit documentary evidence in support of their claim for fulfilling the criteria and they should submit an undertaking on their letter head to the fairness of these documents in support of their claim while submitting the Bids. The Bids received without documentary evidence will be rejected outright.

7. COST OF TENDER DOCUMENT

A non- refundable amount of Rs.3000/- towards Tender Document cost has to be paid in the form of a Demand Draft (DD) drawn in favour of **Executive Director, ASRTU** drawn on a nationalized/scheduled bank and payable at New Delhi. The name and address of the firm has to be furnished on the reverse side of the DD. Cost of Tender Document will not be accepted in any form other than DD.

The Tender Document can be downloaded from www.asrtu.org but the bidder has to submit the tender document cost of Rs.3000/- in form of DD as mentioned above before closing date failing which its tender will be rejected.

8. EARNEST MONEY DEPOSIT (EMD)

The Bidder shall submit, a refundable amount of Rs.10000/- towards Earnest Money Deposit (EMD) in the form of DD drawn in favour of **Executive Director, ASRTU** drawn on a nationalized/scheduled bank and payable at New Delhi and the same should be submitted along with technical bid.

The name & Address of the firm submitting the TENDER has to be furnished on the reverse side of the DD. EMD in any form other than DD shall not be accepted.

EMD of the technically not qualified bidders will be returned after completion of the technical evaluation process. The EMD of the technically qualified bidders will be refundable only after finalization of the tender in all respects. Failure to enclose the DD for EMD amount or incomplete Tender shall result in disqualification of the tender.

No interest will be payable by ASRTU/SRTUs on the amount of the EMD.

The EMD shall be forfeited:

- The Earnest Money deposited will, however, stand forfeited if the tender is withdrawn, before the acceptance or the rejection thereof by the Standing Committee (S&C).
- If any firm remains out of contract and has not settled the reported/admitted claim of STUs, then the EMD of the firm shall be forfeited by ASRTU.
- If any approved firm does not accept the terms & conditions of ASRTU Contract.
- In the case of a successful bidder, if the bidder fails to furnish Security Deposit (SD) to SRTU.

9. SECURITY DEPOSIT

If any member SRTU avail the service from bidder based on the Data Analytics Rate Contract of ASRTU, the bidder has to enter into a separate agreement with the SRTUs concerned and shall submit security deposit as decided by the SRTUs (The amount & its validity period will be decided by the concerned STU) and the security deposit shall not carry any interest.

10. TENDERING PROCESS

SUBMISSION OF BIDS:

SEALING AND MARKING OF BIDS:

The Bid contains three parts ;

The first part (Envelope-A) should contain a DD towards EMD.

The second part is the Envelope-B marked Technical Bid should provide the technical expertise and proposed solution.

The third part containing Financial Bid marked as Envelope-C should contain the prices and the proposed terms and conditions

All these individual envelopes should be properly sealed marked with the tender number and also the company details.

All the envelopes need to be included in a larger enveloped duly sealed and addressed to the **Secretary, Standing Committee (Supplies & Contracts) ASRTU Bhawan, Plot No. 4-A, PSP Block, Pocket-14, Sector-8, Dwarka, New Delhi-110077 (INDIA)** indicating the tender number and also providing the company name and address details.

These envelopes are to be submitted in ASRTU office on or before the submission date before 17.00 Hrs on 30/01/2018.

10.1. GENERAL CONDITIONS

- a) The tender has to be submitted in accordance with the Terms & Conditions.
- b) The DD pertaining to prescribed EMD should be submitted along with the Tender (Technical bid).
- c) The validity of the ASRTU Rate Contract issued after decision of SC(S&C) will be for 2 years which can be extended further on mutual consent. However, if any SRTU enter into contract for the services of Data Analytics from bidder during the validity period of this rate contract, it will be valid for 5 years (1 year of warranty period & 4
- d) years of AMC) from the date of agreement with concerned SRTU.
- e) Only the authorized Representatives of the tenderers will be allowed to be present at the time of opening of Tenders. Tenders received after the due date and time and without EMD will be summarily rejected.
- f) The successful bidder/bidders should enter into an agreement with SRTU (As per the stamp duty applicable), duly submitting Bank Guarantee towards Security Deposit as mutually agreed between the bidder & concerned SRTU.

10.2. GENERAL TERMS

- a) The response to the tender has to be submitted in accordance with the Terms and Conditions mentioned in this document.
- b) The specifications and requirements mentioned in the tender cannot be changed if Bidder wish to provide more, they can do so, the same will be considered during tender evaluation.
- c) ASRTU reserves the right to cancel the tender at any stage and can invite fresh tender without assigning any reasons.
- d) If any dispute arises out of the contract with regard to the interpretation, meaning and breach of the terms of the contract, the matter shall be referred to, by the Parties, to the Executive Director, ASRTU who will be the Sole Arbitrator of the dispute and whose decision shall be final.
- e) The Bidder should have a local support office at Head Office of SRTUs and provide the supporting documents in technical bid. If the bidder does not have any local support office at the time of bidding then he must submit an undertaking on his letter head that if selected then he shall open a local support office within one month from the date of award of contract.
- f) The application software developed for this project should be provided with perpetual licenses for SRTUs use. The vendor shall use only Open Source like Java/My SQL etc for delivering the solution. SRTUs will however have all Intellectual Property Rights on all customizations carried out to suit SRTUs operations & reporting requirements etc. The application software to the extent of customization to SRTUs should not be used, or handled by any individual, outside agency, firm, organization, state transport undertaking except SRTUs.
- g) ASRTU/SRTUs reserves the right to reject any software supplied against the order, if found not working satisfactorily or not able to render the proposed solution at the time of installation at sites. The rejected software, if any, shall have to be taken back and replaced as per requirement of Corporation forthwith at the cost of the bidder. No

payment will be made for the rejected software.

- h) The bidder should mention the name and details of person to whom all references shall be made regarding the Tender. Bid documents have to be signed by an authorized person of the company.
- i) **Payment of Secretarial Rebate:**
- i) In the event any bidder having Rate Contract with ASRTU, entered into agreement to provide any services to any member SRTU as per the terms and conditions of this Rate Contract as a result of (i) a presentation by ASRTU to such SRTU, or (ii) an introduction by ASRTU between such STU and the bidder or (iii) SRTU taking services on ASRTU Rate contract from the bidder directly, is awarded a contract to provide services on the basis of the tender, the bidder shall pay to ASRTU a secretarial rebate of 2% on the value of the funds actually paid by the SRTU along with the applicable GST (Goods & Service Tax).
 - ii) The rebate shall be paid on the quarterly basis furnishing requisite information in format attached within 30 days on completion of the quarter.
 - iii) The ASRTU Secretarial Rebate has Incentive/Penalty provisions also. The Declaration-I for **Payment of Secretarial Rebate** is placed at **Annexure-6**.

10.3 KEY DATES AND EVENTS

Sl. No.	Event	Date & Time
1	Tender Commencement Date	29/12/2017 11 00 Hrs
2	Pre-bid meeting	11/01/2018 11 00 Hrs
3	Tender forms request Last Date (along with only DD of Rs.3000/- towards cost of tender document)	29/01/2018 18.00 Hrs
4	Closing Date for submission of Tender & EMD (duly furnished tender documents along with EMD to be submitted in Manual mode)	30/01/2018 17.00 Hrs
5	Opening of Technical Bids	31/01/2018 11.00 Hrs
6	Date of opening of financial bids	Will be informed later

10.4 PRE BIDDING MEETING

ASRTU will conduct a pre-bid meeting to clarify the objectives/scope of the project in ASRTU Office. The interested bidders should confirm their participation and submit their queries, in advance, in writing/e-mail as per the date given in 10.3 Key Dates and events clause. Queries by e-mail may be sent to dt.asrtu@gmail.com

10.5 BID SUBMISSION & CORRESPONDANCE

Address for Bid Submission & Correspondence

Secretary, Standing Committee (Supplies & Contracts)
ASRTU Bhawan, Plot No. 4-A, PSP Block,
Pocket-14, Sector-8, Dwarka, New Delhi-110077 (INDIA)

Contact Person: Sh. R. Chandrababu, Director (Technical), ASRTU

10.6 BID SUBMISSION

- a. The bidders will have to submit their bids/offers in two parts namely,
—Technical Bid and —Financial Bid, in separate sealed covers enclosed in an outer sealed cover. Technical bid of bidders will be opened only on submission of DDs for EMD.
- b. Financial bids of only the bidders who qualify in the technical evaluation will be opened.
- c. Bidder shall submit the Technical bid along with the documents, and
Financial bid, as described in _Technical Bid Evaluation 'Section of Tender on the date of bid submission as mentioned in the Tender. Hard copy of TENDER/BID shall be submitted through any form i.e. By Hand or Speed Post or Courier. The bids should reach to ASRTU before the closing date & time.
- d. The outer envelope shall indicate the name and address of the bidder to enable the Bid to be returned unopened in case it is declared "late . Both inner and outer Envelopes shall be addressed to ASRTU at the address specified in TENDER.
- e. ASRTU reserves the right to accept or reject any bid without assigning any reason.
- f. Rates/prices should not be indicated in the Technical Bids. All the columns of the quotation form shall be duly, properly and exhaustively filled in. Rates shall always be both in the figures and words.
- g. The bids shall be valid for a period of 9 (nine) months from the date of opening of the Technical bids or till finalization of the contract, whichever is earlier.

11.BID EVALUATION PROCESS

11.1. Technical Bid Evaluation

- a. ASRTU will evaluate and compare the bids determined to be substantially responsive.
- b. Bidders who satisfy the eligibility criteria will only be qualified for technical evaluation. Financial bids of only those bidders who are qualified in the technical evaluation will be opened and evaluated further.
- c. The shortlisted firms shall give a Demo of the prototype of the solution proposed to be provided, on the date that would be communicated.
- d. The Financial bids of all the technically qualified bidders and the bidders who have successfully completed the demo of prototype would be opened. ASRTU reserves the right to reject any or all bids.

11.2.Financial Bid Opening

- a. The Financial bids of only the technically qualified bidders will be opened for consideration. Financial bids of the remaining bidders will not be opened.
- b. The total amount offered by the firm for the entire contract period of 3 years (36 months) will be worked out for consideration.
- c. The rates of the Bidders will be placed before the Standing Committee (S&C) of ASRTU for consideration.

11.3.Negotiations, Contract Finalization and Award

The bidder whose rates, terms & conditions are considered by the Standing Committee(S&C) of ASRTU will be awarded contract. If PRSC or SC(S&C) of ASRTU advises for negotiations for quoted rates, the firms will be asked for negotiations.

12. PAYMENT TERMS

Configuring the BI Tool on the server -30%

Integration of various databases with server & Configuring and deployment of user licenses – 10%

Development and deployment of Dashboards – 40%

Completion certificate and fulfilling all training obligations – 10%

After completion of Warranty period – 10%

13. Scope and Project Tasks (Technical & Functional)

Design, Development, Supply, Installation, Testing, Commissioning, Training, Operation, Maintenance and Management of Business Intelligence & Analytics Platform (BI & Analytics) for SRTU covering the following core areas:

- BI & Analytics should be deployed for SRTUs
- Cloud based solution or on premises at Central Data Centre located in SRTUs (if server is offered by SRTU).
- Complete maintenance of the solution for the contract period
- Relevant documents should be submitted to SRTUs with regard to the Software provided for this project.
- Technical support for the entire BI & Analytics system
- Providing skilled persons and non-technical staff required for effectively manning the system.

The entire project implementation for SRTUs will be based on the SLA defined. The vendor has to quote for the software requirement for SRTUs, along with detailed specifications, based on the SLA requirements. Vendor is responsible for scaling up when the number of buses in SRTUs, to be covered under the project is further increased, the cost of which will be borne by SRTUs.(as per Annexure-3)

13.1 Functional & Technical Specification of the Proposed BI & Analytics Platform

The key stakeholders are the traveling public, the operative staff of SRTUs involved in efficiently running the buses as per schedule with well-maintained buses and meeting the quality of international standards.

The range of interventions to meet the stakeholders expectations includes:

Operational Managers

- a. Facilitate operational managers to manage the entire fleet operations more efficiently through real-time dashboards.
- b. Preparation of standard reports and charts to support all levels of management in decision making.

Management

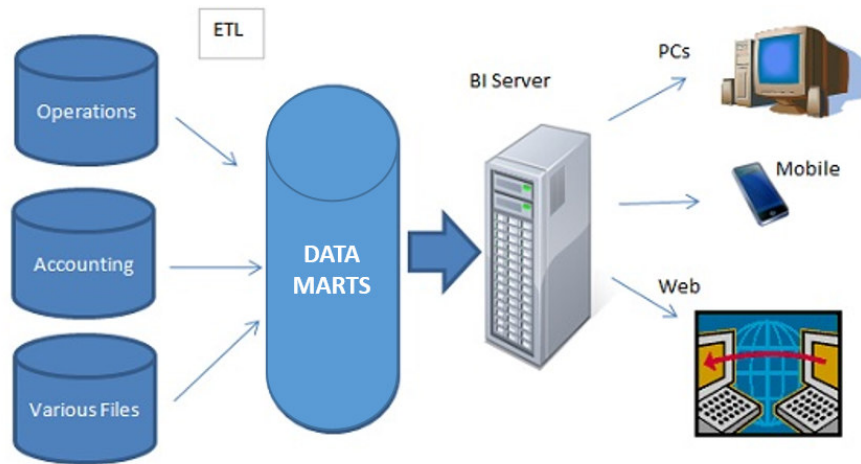
- a. Analytical data (graphical, text and numerical data) for the top management to support effective management of the services of SRTUs.
- b. Cater to requirements of dynamic and context based specific reports graphs and charts and other standard Management Information System reports to give a snapshot view to the SRTUs management on daily, monthly, weekly, quarterly, half-yearly and yearly performance.

13.1.1 Overall Scope of Service

The overall scope of the implementation will consist of BI & Analytics design, development, testing, installation, commissioning, training, operations, maintenance and management of facilities for the contractual period. The BI & Analytics solution will scale up to meet additional buses deployed as necessary on temporary / permanent basis.

13.1.2 Bi & Analytics Application Software Scope

- Central database
- Business intelligence & Analytics Platform



BI & Analytics Platform should enable users to create an eco-system to help organizations learn and understand their business in a better manner. The cube as a software platform has multiple capabilities organized to discover new insights and patterns about business processes and operations to gain competitive advantage.

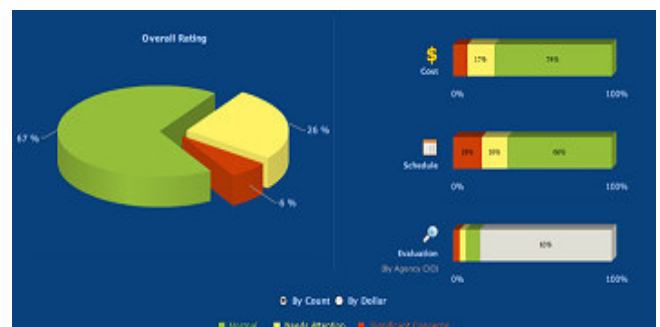
13.1.3 Features

BI infrastructure —Allows users to connect different data sources to centralized platform both on premises as well as cloud and generate different kinds of reports and dashboards.

Utilities — On premises or cloud based Centralized Platform provides a set of BI utilities and a visual development environment for integrating all processes related to Routes, Services conductor/ drivers and operation/quality measures and deploy a comprehensive solution. This platform enables developers to build BI applications without coding by using wizard-like components for a graphical assembly process.

Reporting — Ability to create formatted and interactive reports (parameterized) with highly scalable distribution and scheduling capability. The reports are varied and categorized. They also cover interstate and intra state reporting structures. Unlimited viewing and analyst license should be provided.

Dashboards —A subset of reporting with an ability to publish formal, Web-based reports comprising of intuitive interactive displays of information, including dials, gauges, sliders, tables and graphs. These displays indicate the state the



performance of a metric compared with a goal or target

Interactive visualization — Display numerous aspects of the data more efficiently by using interactive pictures and charts, instead of rows and columns. Advanced visualization goes beyond just slicing and dicing data to include more process-driven BI systems, allowing end-

users

to



understand better the workflow through a visual representation.

Predictive modeling and data mining — Platform should help in (What if?) analysis and certain simulation activities to be performed. It enables to forecast revenue trends, predict traffic volume, monitor future maintenance or analyze fuel price trends. The variation of some parameters and their influence on other elements can be studied to understand the operations in a more comprehensive manner, e.g.: impact of various decisions such as price change or route change on revenues and end users can be studied.

Balance Scorecards — Take metrics displayed in a dashboard a step further by applying them to a strategy map that aligns KPIs with a strategic objective.

13.1.4 Software Product Specifications

Vendor shall provide the required BI & Analytics software for unlimited users.

It should have below specifications:

- Data Search and discovery interface
- Unified Visualization Builder
- Advanced aggregation-based analytics capabilities
- Cognitive Insights
- Alert Mechanism
- Role Based Access
- Integration of Data Source

Modern analytics platform

- Simplify your analytics strategy by standardizing on one integrated platform.
- Centralize your data models and metrics for a comprehensive representation of the business
- Enable business leaders to securely access and explore data irrespective of their location via mobile devices
- Connect directly to more sources and Big Data for broader, richer analysis.

Advanced analytics

- Empower key decision-makers to quickly find answers to predictive and statistical questions.
- Enable business analysts to create mash-up data sets by running R scripts in batch mode.
- Choose from hundreds of pre-built functions to speed analysis or extend existing analytics easily with R scripts.

Mobile

- Talk to your data using a search-driven approach to analytics that is optimized to see visualizations displayed in response.
- View, analyze, and act on data in the on-premises.
- Create mobile analytical apps with rich, interactive visualizations—without writing a single line of code.
- Build apps once and distribute anywhere—apps are responsive to any device, any screen size.

In-memory enhancements

- Improve performance for mash-up data.
- Faster query performance.
- Improve deployment efficiency.
- Increase memory storage.

Self Service

- Get people across the organization started with little to no training and scale seamlessly as adoption increases
- Load your own data and analyze it from any angle to uncover problems and new opportunities
- Blend local and corporate data for deeper insights

N-Tier: The Proposed application will be N-tier Service oriented Architecture - with separation of business logic from application, database and presentation.

Load Balancer: Load balancer application will be the first component which will intercept the user request and spray it to Web Server. This ensures the load is distributed evenly across Web Server.

Application Services: Main functionality of this component is to host Bi & Analytics application.

Database Services: This component stores data in support of Reservation systems and it needs to be deployed in Active-Active mode.

Backup Services: This component protects data from hardware failures and other errors by storing backup and archive copies of data on offline storage. This will also play a key role in Disaster Recovery.

Reporting Services: This layer provide reporting, analysis, score carding, dash boarding, business event management, and data integration.

Service/Security Management: This layer provides services such as Identification, Authentication, Authorization, and Access control, System Management, Network Management and SLA Management. System Environments requires Vendor to implement three system environments.

Test Environment: This would allow Vendor to deliver initial development releases, subsequent system updates and to enable to carry out system and integration testing. This would be a scaled down version of the eventual production Environment. Whilst the functionality would parallel that of the Production Environment, the system throughput capacity and resilience would be significantly less.

Pre-Production Environment: The second system proposal is for a Pre-Production Environment. This would provide SRTUs with functionality similar to Production environment. This is used for UAT and data loading. This would be a scaled down version of the eventual production Environment. This system shall be used for initial load testing and UAT. While the functionality would be parallel to that of the Production Environment, the system throughput capacity and resilience would be less.

Production Environment: The Third system environment is for a Production Environment. This would provide BI & Analytics System functionally. This system throughput capacity would be significantly larger than the earlier environments.

Specifications

Application Server: Application server is needed to provide secure, scalable, and resilient application infrastructure needed for Service Oriented Architectures (SOAs). Application server provides platform to deploy, integrate, and manage applications.

Database: Database management software with in memory database solution is the core of BI & Analytics. Business Intelligence solution provides ASRTU/SRTUs with complete, multipurpose environment that allows access, analyze and act on real-time information, operational, real time and historical data.

Business Continuity Planning (BCP): Solution partner in consultation with ASRTU management team can analyze all the process and categorize it as critical and non-critical (non-urgent) functions/ activities. Accordingly, the Recovery Point Objective (RPO) and Recovery Time Objective (RTO) for both critical and non-critical components can be considered as mentioned below:

For the critical components: RPO for each activity of solution will be designed to recover the last saved data by user and RTO for each activity of the solution be designed to restore the function within minutes.

13.1.5 Minimum Hardware/Software Specifications for Data Centre (if provided by the SRTU):

MINIMUM HARDWARE SPECIFICATIONS FOR DATA CENTER & CONTROL CENTER:

The bidders should give detailed specifications of the all the hardware and software that would be required in the Data Center and Control Center for this project to handle STUs bus depots (will be provided by the concerned SRTU) and also maintained by the SRTU. The hardware required should take into consideration the future increase in the number of depots or data to be covered under the project. **(Annexure-V)**

13.1.6 Minimum Man Power

The successful bidder has to provide all the required man power for design, development, and successful implementation of the project and maintenance of the software for the entire contract period.

13.1.7 Training

Vendor shall be responsible for effectively providing training to the Central Data Centre Staff, Depot Managers / operators, in various operations and shall also train SRTUs identified IT systems staff in the maintenance of the BI & Analytics including the Central Data Centre equipment and services.

The number of people to be trained would be specified by SRTUs well before commencement of the training schedule. Training needs to be conducted based on a requisite mix of theory & practical operational sessions.

13.1.8 Details of Operations

1. The vendor will deploy manpower for installation, support & maintenance of the entire BI & Analytics system for the entire period of contract. Sufficient manpower will be deployed at Head Office (H.O.), depot for smooth functioning of BI & Analytics system.
2. Daily operations related to computers at depot/bus station level for desired reports, monitoring and analyzing the BI & Analytics would be done by vendor along with the SRTUs units/depot's designated officials/employees. But support in operations would be provided by the vendor through their resident engineers.

3. The vendor will also deploy manpower for regular operation and maintenance of all the Application Software, Connectivity etc., provided/supplied by them for the complete project period.
4. The responsibilities of the vendor at the depot level and command center/central data center include, but not limited to:
 - a. Keeping a watch on the health of the system to ensure minimum downtime of each of the components.
 - b. Keep sufficient reserve stock of hardware devices deployed at depot/bus station level or at their local level service center or with engineers.
 - c. Maintaining and upgrading the software components of the system.
 - d. Conduct server and database maintenance activities at Data Center in a scheduled manner and during off-peak hours
 - e. Informing the staff concerned, in case of any component failure

13.1.9 Documentation

The bidder needs to prepare all necessary documentation for the proposed solution. These should include user manuals and other information related to the operational performance of the proposed solution. As per requirements of SRTUs mentioned at 3.2.

13.1.10 Roles & Responsibilities of SRTUs

- a) ASRTU shall provide table space at depots/bus stations for providing support in operation, regular maintenance of the devices/software deployed by the successful bidder.
- b) Provide information on daily collected data.

14. PROJECT IMPLEMENTATION PLAN

The BI & Analytics Implementation shall be commenced and completed as per the following timelines–

Sl. No.	Activity	Timeline
1	<ul style="list-style-type: none"> • Project Start 	T
2	<ul style="list-style-type: none"> • Procurement of software and hiring of Cloud server (Data Center & Control Center) 	T+1 month
3	<ul style="list-style-type: none"> • Installation of BI & Analytics Platform and integration with Central Data Centre • ETL Process & Creating Dashboards • Testing • Go-live • To provide source code to SRTUs • Simultaneous preparation of training material & submission of training documents 	T+3 month

The time line to complete the project from the award and acceptance of the Tender. However, the successful bidder may complete the project before the above stated timeline and project may be given „Go-Live“ status. The maximum period for giving Go-Live status is “after 4 months from the date of issue of LOI”.

DETAILED SCHEDULE FOR PROJECT IMPLEMENTATION:

ACTIVITY	TIMELINE
<ul style="list-style-type: none"> • Date of Issue of LOI • Agreement & Submission of Bank Guarantee 	15 days
<ul style="list-style-type: none"> • Procurement & provision of Equipment’s (Software etc.) & Hiring of Cloud Server or Server is provided by SRTU 	20 days
<ul style="list-style-type: none"> • Data Management, ETL Process • Dashboard Development and Testing 	15 days
<ul style="list-style-type: none"> • Testing & Providing Training 	20 days
<ul style="list-style-type: none"> • Preparation & submission of Technical Document • User Manual • Installation manual • Operation & Maintenance Manual 	20 days

15. SERVICE LEVEL AGREEMENT (SLA) -

The successful bidder should complete the project before three months from the date of issue of LOI from SRTU. Since, the Go-Live status starts “after three months from the date of issue of LOI”.

SLA is the contract between SRTUs and the successful bidder. SLA defines the terms of the Successful bidder’s responsibility in ensuring the timely delivery of the deliverables and the correctness of the same based on the agreed Performance Indicators as detailed in the Agreement. This section defines various Service Level Indicators which will be considered by SRTUs in the Service Level Agreement with Successful bidder.

The successful bidder has to comply with all Service Level Agreements (SLAs) to ensure adherence to project timelines, quality and availability of services.

The successful bidder would get an initial period of SLA holiday, i.e., a time period for which SLAs will not be applicable. This time should be utilized by the successful bidder to stabilize the system and to ensure adherence to the performance standards laid down by the SLAs. The SLA holiday period is Three months after successful completion of BI &

Analytics project (i.e. after Go-Live Status).

The successful bidder is supposed to maintain software in fully functional modes for the entire project period.

PENALTIES:

Any penalties applicable shall be imposed after SLA holiday.

The SLA terms and conditions will be mutually decided during finalization of the contract agreement however, some major SLAs are mentioned at **Annexure-3**.

16. GENERAL TERMS & CONDITIONS

16.1 Bid Currency

The rates quoted shall be in Indian Rupees only.

16.2 Signature

A representative of the bidder, who is authorized to commit the bidder to contractual obligations, must sign with the bidder's name and seal on all pages of the proposal, including the tender document. All obligations committed by such signatories must be fulfilled.

16.3 Period of Validity of proposals

The proposals shall be valid for a period of Nine (9) months from the date of opening of the Technical bids or till finalization of contract. The rate contract will be finalized by the appropriate committee. The validity of the ASRTU Rate Contract issued after decision of appropriate committee will be for 2 years which can be extended further on mutual consent. However, if any SRTU enter into contract for the taking services during the validity period of this rate contract, it will be valid for 05 years from the date of agreement with concerned SRTU.

16.4 Non-Confirming proposals

Any proposal may be construed as a non-confirming proposal and ineligible for consideration if it does not comply with the requirements of this TENDER.

16.5 Language of Proposals

The proposal and all correspondence and documents shall be written in English. All proposals and accompanying documentation will become the property of ASRTU and will not be returned.

16.6 Bid Prices

The vendor has to quote the rate and amounts for Cloud server and Software involved, as per the commercial forms. The prices, once offered, must remain fixed and will not attract any price variation for any reason during contractual period. The rates quoted shall be basic rate only and GST will be extra as applicable up to the completion of the contract period.

16.7 Supply of software etc.

The vendor has to supply, install, and commission, configure, test, implement, operate, manage, maintain and support the software and its allied equipment during the contract period.

16.8 Correction of Errors

The vendor is advised to take adequate care in quoting all the rates. No excuse for corrections in the quoted rates will be entertained afterwards. The corrections or overwriting in TENDER should be initialed by person signing the proposal form.

16.9 Correction of arithmetical Errors

In case of discrepancy between the amounts mentioned in figures and in words, the amount in words shall govern. The amount stated in the proposal form, adjusted in accordance with the above procedure, shall be considered as binding.

16.10 Disqualification

The proposal from the bidders is liable to be disqualified in the following cases:

- Proposal not submitted in accordance with the TENDER.
- During validity of the proposal, or its extended period, if any, the bidder increases his quoted prices.
- Proposal is received in incomplete form.
- Proposal is received after due date and time.
- Proposal is not accompanied by all requisite supporting documents
- Information submitted in technical proposal is found to be misrepresented, incorrect or false, accidentally, unwillingly or otherwise, at any time during the processing of the contract (no matter at what stage) or during the tenure of the contract including the extension period if any.
- The successful bidder fails to enter into a contract within prescribed time after receiving notice of award of contract or within such extended period, as fixed by ASRTU/SRTUs.
- Non-fulfilling of any condition/term by bidder.

16.11 Modification and withdrawal of proposals

No proposal may be modified or withdrawn in the interval between the deadline for submission of proposals and the expiration of the validity period. Modification or Withdrawal of proposal during validity may lead to forfeiture of EMD amount paid against this TENDER.

16.12 Acknowledgment of Understanding of Terms

By submitting a proposal, each bidder shall be deemed to acknowledge that he/she has carefully read all parts of this TENDER, including all forms, schedules and annexures hereto, and is fully agreeable to it.

16.13 Conditions

- This TENDER does not commit the ASRTU to enter into a service agreement or similar undertaking with the bidder or any other organization, and ASRTU shall have the right to reject or accept any proposal or offer, or any part thereof (e.g., any component of any proposed solution) for any reason whatsoever.

- Each bidder shall make the following representations and warranty in its proposal cover letter, the falsity of which might result in rejection of its proposal: —The information contained in this proposal or any part thereof, including its exhibits, schedules, and other documents and instruments delivered or to be delivered to ASRTU/SRTUs, is true, accurate, and complete. This proposal includes all information necessary to ensure that the statements therein do not in whole or in part mislead ASRTU/SRTUs as to any material fact.
- ASRTU/SRTUs is not restricted in its rights to use or disclose any or all of the information contained in the proposal, and can do so without compensation to the bidder. ASRTU/SRTUs shall not be bound by any language in the proposal indicating the confidentiality of the proposal or any other restriction on its use or disclosure.
- Any work whether acceptable or unacceptable, developed under a contract awarded as a result of this TENDER shall be the sole property of ASRTU/SRTUs unless stated otherwise in the definitive service agreement.
- Timing and sequence of events resulting from this TENDER shall ultimately be determined by ASRTU/SRTUs.
- No oral conversations or agreements with any official, agent, or employee of ASRTU/SRTUs shall affect or modify any terms of this TENDER, and any alleged oral agreement or arrangement made by a bidder with any department, agency, official or employee of ASRTU/SRTUs shall be superseded by the definitive service agreement that results from this TENDER process. Oral communications by ASRTU to bidders shall not be considered binding on ASRTU/SRTUs, nor shall any written materials provided by any person other than ASRTU/SRTUs.
- Proposals are subject to rejection if they limit or modify any of the terms and conditions or specifications of this TENDER.

16.14 Notification of Award

ASRTU will notify the successful bidder/bidders in writing or by fax or e-mail, to be confirmed in writing by letter, that its proposal has been accepted. The notification of award will constitute the formation of the contract. The successful bidder has to furnish security deposit to SRTUs in case they provide the services to SRTUs on ASRTU Rate Contract within time specified as mutually agreed between the bidder and the concerned SRTU.

16.15 ASRTU's right to accept any proposal and to reject any or all proposals

ASRTU reserves the right to accept or reject any proposal, and to annul the bidding process and reject all proposals at any time prior to award of contract. ASRTU will not be responsible for any liability to the affected bidder or bidders or any obligation to inform the affected bidder or bidders the grounds for ASRTU's action.

16.16 Variation in quantities at the time of award of contract

Considering the growth rate or augmentation of depot units, additional setup may be required for newly established units or there may be increase or decrease in depots, It will be binding on vendor to provide complete setup of equipment, software etc., to fulfill the requirements during contractual period.

However, SRTUs reserves the right to increase or decrease quantity of buses & displays specified herein before in requirements of BI & Analytics. However, this should not affect — rates given by bidder.

16.17 Delays in bidder's performance

The delivery of BI & Analytics Software, Computer hardware & peripherals for server (In case of Cloud server) and performance of services shall be made by bidder in accordance with time schedule specified in the rate contract.

If at any time during performance of the contract, the bidder may encounter conditions impeding timely delivery of the any software etc., and performance of the services, the bidder shall promptly notify SRTUs in writing of the facts of the delay, it's likely duration and its causes.

As soon as after receipt of bidder's notice, SRTUs shall evaluate the situation and may at its discretion, extend the bidders time for performance with or without penalty in which case the extension shall be ratified by the bidders by amendment of the contract but in no case extension shall be given more than one time.

The bidder must read and understand the requirements thoroughly and shall adhere to the schedule strictly. The supply, installation and commissioning software at all locations shall be as per the implementation schedule given in TENDER.

The bidder has to ensure that entire setup is foolproof and operational.

16.18 Modification in requirements

ASRTU has given basic requirements of software. The vendor has to ensure fulfillment of these requirements basically.

However, if any modifications are necessitated due to change in Govt. /Corporation policy or due to unavoidable circumstances, the vendor has to modify the software/networking equipment/ connectivity type/ consumables etc., as per business needs, during the contractual period, without any additional financial burden to SRTUs.

16.19 Miscellaneous

16.19.1 Resolution of disputes

SRTUs and the Successful Bidder shall make every effort to resolve disputes amicably by direct informal negotiation, any disagreement or dispute arising between them under or in connection with the contract will be settled at the level of **Executive Director, ASRTU**.

If during the subsistence of the contractual period or thereafter, any dispute between the Parties hereto arising out of or in connection with the validity, interpretation, implementation, material breach or any alleged material breach of any provision of this contract or regarding any question, including as to whether the termination of this contract by one Party hereto has been legitimate, the Parties hereto shall endeavor to settle such dispute amicably and/or by Conciliation to be governed by the Arbitration and Conciliation Act, 1996 or as may be agreed to between the Parties.

In case of failure of amicable settlement as is referred to in sub-section above, the dispute shall be referred to the arbitration of the **Executive Director, ASRTU** who shall act as the sole arbitrator for settlement of such dispute(s) between the Parties, and whose decision will be final and binding on all the parties. The Arbitration proceedings shall be governed by the Arbitration and Conciliation Act, 1996.

16.19.2 Notices

Any notice given by one party to the other pursuant to this contract shall be sent to the other party in writing or by fax, e-mail, cable or facsimile to the other party's address, and confirmed in writing by the other party. A notice shall be effective when delivered or tendered to other party whichever is earlier.

16.19.3 Bidder's integrity

The bidder is responsible to oblige to conduct all contracted activities as defined in the scope of work in accordance with contract.

16.19.4 Bidder's obligation

The bidder is obliged to work closely with SRTUs staff, act within its own authority and abide by directives issued by SRTUs.

The bidder will abide by the job safety measures prevalent in India and will free SRTUs from all demands or responsibilities arising from accidents or loss of life the calls of which is the bidder's negligence. The bidder will pay all indemnities arising from such incidents and will not hold SRTUs responsible or obligated.

The bidder is responsible for managing the activities of its personnel and will hold itself responsible for any misdemeanor.

The bidder will treat as confidential all data and information about SRTUs, obtained in the execution of his responsibilities in strict confidence and will not reveal such information to any other party without the prior written approval of SRTUs.

16.19.5 Interpretation of the clauses in the TENDER / contract document.

In case of any ambiguity, in the interpretation of any of the clauses in TENDER document or contract document, ASRTU's interpretation of the clauses shall be final and binding on all parties.

16.19.6 Termination for Default

ASRTU may, without prejudice to any other remedy for breach of contract by written notice of default sent to the bidder, terminate the contract in whole or in part:

If the bidder fails to provide satisfactory services at the desired level of contract within the time period(s) specified in the contract, or any extension thereof granted by ASRTU/SRTUs.

OR

If the bidder fails to perform any other obligation(s) under the contract.

16.19.7 Licenses for Database, Application etc.

The bidder shall provide the required licenses for BI & Analytics Platform, being used at all levels. The licenses should be perpetual in all possible cases/should be for the entire contract period if the software do not have a perpetual licensing policy.

16.19.8 Non Exclusivity, License Fee, IPR

The Intellectual Property Rights of the Application Software developed/customized for SRTU shall be vested in SRTUs who shall have absolute right to use, license or sell the system without any payment to or permission from the Bidder. The application software along with source code shall be the property of SRTUs under the provision of IPR.

16.19.9 Software Ownership Rights

The Bidder shall relinquish to SRTUs the source code along with adequate detailed documents (from the testing phase onwards) and the rights to the systems, programs and software developed at SRTUs expense and subject to negotiated agreements, all ownership rights to the application software packages procured for SRTUs. The source code with version control system should be submitted both in a DVD & external HDD to SRTUs. For third party tools, the bidder shall provide perpetual license to use such software.

16.19.10 Patent Rights

In the event of any claim asserted by a third party of infringement of copyright, patent, trademark or industrial design rights arising from the use of the software / database / peripherals or any part thereof, the Bidder shall expeditiously extinguish such claim. If the Bidder fails to comply and SRTUs are required to pay compensation to a third party resulting from such infringement, the Bidder shall be responsible for the compensation including all expenses, court costs and lawyer fees. SRTUs will give notice to the Bidder of such claim, if it is made, without delay.

16.19.11 Manpower Support

Detailed scope will include all work related to BI & Analytics Hardware, software, maintenance of database etc., The bidder shall abide by the labour legislation and rules made there under applicable in India and the concerned SRTU's state. The bidder will also study the working of all levels of concerned SRTU and submit a Manpower Deployment plan which will be at least the minimum proposed to meet the desired service levels.

In case of absence of any of his employee, the bidder should provide alternative person the next day. The bidder should ensure that the behavior of manpower is decent. The bidder will be held responsible for indecent behavior of manpower, and such employees should be immediately replaced when such matter is reported.

The bidder should submit the affidavit stating that the bidder or its employees should not ask for employment in Corporation.

16.19.12 Force Majeure

The bidder shall not be liable for penalty, liquidated damages or termination for default, if and to the extent that, his delay in performance or other failure to perform his obligations under the contract is the result of an event of Force Majeure.

For purposes of this clause, —Force Majeure means an event beyond the control of the bidder and not involving the bidder and not involving the bidder’s fault or negligence and not foreseeable. Such events may include, but are not restricted to, instances of wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes which would have an impact on ASRTU.

If a Force Majeure situation arises, the bidder shall promptly notify ASRTU in writing of such conditions and the cause thereof. Unless otherwise directed by ASRTU, the bidder shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

16.19.13 Force Majeure Events

The Force Majeure circumstances and events shall include the following events to the extent that such events or their consequences (it being understood that if a causing event is within the reasonable control of the affected party, the direct consequences shall also be deemed to be within such party’s reasonable control) satisfy the appropriate definition as per this agreement. Without limitation to the generality of the foregoing, Force Majeure Event shall include the following classes of events and circumstances and their effects:

Natural events (—Natural Events) to the extent they satisfy the foregoing requirements including:

- Any material effect on the natural elements, including fire, earthquake, cyclone, flood, storm, tornado, or typhoon;
- Explosion;
- Any event or circumstance of a nature analogous to any of the foregoing.
- Other Events (—Political Events) to the extent that they satisfy the foregoing requirements including:
 - Act of war (whether declared or undeclared), invasion, armed conflict or act of foreign enemy, blockade, embargo, revolution, riot, insurrection, civil commotion, act of terrorism or sabotage;
 - Strikes, work to rules, go-slows which are widespread, Statewide and are of political nature;
 - Any event or circumstance of a nature analogous to any of the foregoing.

16.19.14 Use of documents and Information

The vendor shall not, without prior written consent from ASRTU/concerned SRTU, disclose/share/use the bid document, contract, or any provision thereof, or any specification, plan, drawing, samples etc. furnished by or on behalf of ASRTU/SRTU in connection therewith, to any person other than a person employed by the vendor in the performance of the contract. Disclosure to any such employed person shall be made in confidence and shall extend only as far as may be necessary for the purposes of such performance.

All project related documents (including this bid document) issued by ASRTU/SRTUs, other than the contract itself, shall remain the property of the ASRTU/SRTUs and shall be returned (in all copies) to the ASRTU/SRTUs on completion of the Vendor’s performance under the contract if so required by the ASRTU/SRTUs.

- 16.20 The Disputes, differences arising out of this project if any, should be referred to the Executive Director, ASRTU who will be the sole Arbitrator and whose decision shall be final and binding on all parties.
- 16.21 The disqualifications/considerations shall be on interpretation of the ASRTU with regard to clauses (Technical & Financial).
- 16.22 The successful vendor shall use its best efforts to ensure that sufficient personnel are employed to perform the Services and such personnel have appropriate qualifications to perform the Services.
- 16.23 The successful vendor has to undertake maintenance of the project after completion of the contract period, if so desired by SRTUs, on the same terms and conditions.
- 16.24 The successful vendor shall ensure secrecy of the information supplied to it in the process of implementation of BI & Analytics. The information shall not be disclosed to others except concerned SRTU.
- 16.25 The successful vendor shall be responsible for all statutory liabilities in respect of claims for personnel injury to or death of any person employed by the partner or sub-contractors and arising out of such employment.
- 16.26 In case of violation of any terms of the agreement, SRTU reserves the right to forfeit the Security Deposit and invoke the Bank Guarantee in favor of Concerned SRTU.
- 16.27 The required man power for successful implementation of BI & Analytics, attending to day to day problems, rectification of provided hardware problems etc., shall be provided by the vendor.
- 16.28 All statutory encumbrances for employing the manpower have to be borne by the successful vendor. SRTUs are not responsible for the same.
- 16.29 The agreement entered by the successful vender shall not be supplemented, amended or modified in any manner except by an instrument in writing signed by a duly authorized officer or representative of each of the parties hereto.
- 16.30 Any attempt by a Bidder to influence ASRTU in its bid evaluation, bid comparison or contract award decisions may result in the rejection of the Bidder's Bid.

17. ANNEXURES

Annexure-1

Proforma 'A'

Please furnish the particulars with proof.

S.No.	Particulars	
1.	Name of the Company	
2.	Registered Address with Phone, Fax & Email id	
3.	Contact person with Name, Designation, Mobile No. & email Id details.	
4.	Year of Incorporation with Certificate details	
5.	Three years Experience in similar projects/Software Development (furnish evidence as per tender)	
6.	Whether the bidder have done similar type project (Data Analytics) in any government organization/PSUs/ Undertakings in India(furnish evidence as per tender)	
7.	Name of the customers	

8.	Details of qualified professionals for implementation of the solutions (furnish evidence as per tender)	
9.	Turnover of preceding 3 years, furnish year-wise	
10.	Whether having ISO certificate, furnish copy	
11.	Whether the solution confirms to all the requirements mentioned in the tender.	
14.	Acceptance of depositing Security Deposit with concerned STU.	
15.	Is the firm registered with commercial tax department? If Yes, submit valid GST registration certificate.	
16.	Processing Fees amounting to Rs.10,000/- (Rupees Ten Thousand only) made through demand draft in favour of Executive Director , ASRTU payable at New Delhi.	
17.	Remarks if any	

The information mentioned herein above proforma is true and correct and we hereby undertake to accept all the obligations and responsibilities of EoI.

Place :

Signature of authorized Signatory with stamp

Date :

Name of the authorized person of the Company

Designation:

Annexure-2 : Details DEMO/POC

Demo/POC Evaluation

Bidder must present POC in the given time by collecting minimum 3-6 months of data from the STU's and create

1. Dashboards
2. Comparison Matrix
3. Must show features like drill down and drill up
4. Any other features if they wish to

Annexure-3 : SLAs

1. Service Availability

Coverage parameters specific to the service(s) covered in this Agreement are as follows:

- Telephone support : 9:00 A.M. to 5:00 P.M. Monday - Friday
- Calls received out of office hours will be forwarded to a mobile phone and best efforts will be made to answer / action the call, however there will be a backup answer phone service
- Email support: Monitored 9:00 A.M. to 5:00 P.M. Monday - Friday
- Emails received outside of office hours will be collected, however no action can be guaranteed until the next working day
- Onsite assistance guaranteed within 72 hours during the business week

2. Service Requests

In support of services outlined in this Agreement, the Service Provider will respond to service related incidents and/or requests submitted by the Customer within the following time frames:

- 0-8 hours (during business hours) for issues classified as **High** priority.
- Within 48 hours for issues classified as **Medium** priority.
- Within 5 working days for issues classified as **Low** priority.
- Remote assistance will be provided in-line with the above timescales dependent on the priority of the support request.

3. Service Levels

Parameter	Description	Severity I	Severity II	Severity III	Severity IV
Response time	Assess the problem /resolve and communicate with user.	30 Mins	4 Hours	2 working days	4 working days
Problem resolution	Final Fix	8 hours	4 Working Days	7 Working days	Schedule
Expected Service Level		> 99%	>98%	> 96%	>94%
Minimum Service Level		96%	97%	95%	94%

Severity I: Critical service in Production is unavailable or very seriously impaired by a problem. Users cannot perform normal work and adverse business or financial impact.

Severity II: Non Critical service is unavailable. There is a minor impact on the business. User can perform day-to-day work while the resolution is in progress.

Severity III: Non Critical service is unavailable. There is no impact on the business. User can perform day-to-day work while the resolution is in progress.

Severity IV: Additional development or technical services that is non-critical.

4. Service Escalation Matrix

	Escalation Level 1	Escalation Level 2	Escalation Level 3
Name			
Designation	Service Manager	Sr. Manager (Service Delivery)	Director - Service Delivery & Customer Support / ES
Direct Tel. No.			
Mobile No.			
Email ID		-	-
Remarks	After 1 week from receiving RID	In case of no response or delays	In case of long delays and escalation cases

Annexure-4: Format for Self Declaration

Ref. _____

Date:

To,
Secretary , SC(S&C),
ASRTU,

Sir,

In response to the Tender No. _____ dated _____ of Ref. _____ as an owner / Partner / Director of _____ I/We hereby declare that our Company _____ is having unblemished past record and was not declared ineligible for corrupt and fraudulent practices either indefinitely or for a particular period of time.

Name of the bidder:

Signature:

Seal of the Organization:

Annexure - 5:

Minimum Hardware Specifications (For Data Center & Control Center)in case it is provided by the SRTU

1). Database Servers: __ No's

2). Specifications of Servers:

DESCRIPTION: Tender for Analytics and Data Visualization in SRTUs

DECLARATION-I

Name of the firm: M/s -----

Name of the item : -----

Period of Rate Contract: -----

I /We hereby solemnly abide the terms & conditions of Rate Contract signed with ASRTU for providing Electric Buses on hiring basis to the State Road Transport Undertakings, member of the ASRTU. I/We shall **pay Secretarial Rebate to ASRTU** as mentioned in Rate Contract, along with GST (as applicable) on **ALL THE SERVICES PROVIDED TO THE STUs**. The payment of rebate to ASRTU will be calculated on the **TOTAL SERVICES PROVIDED** to all member STUs against the Rate Contract including following situations:-

- i) *Services provided against the Rate Contract signed with ASRTU.*
- ii) *Services provided against the tenders invited by SRTUs for same service or slightly modified services mentioned in Rate Contract.*

The ASRTU shall have the right to take any action as deemed fit in the event of not informing/making full rebate payments by us

for all the services made/provided to STUs including the above situations.

Place:

Signature of authorized Signatory *

Date : / / 2017

Name of the authorized person of the Company

Seal of Company

Designation:-

* **Note:- Letter of authorization to be submitted if not submitted earlier.**

Bidders Authorization Certificate

To,
The Secretary
Standing Committee(S&C)
ASRTU,

<Bidder's Name>, < Designation>, is hereby authorized to sign relevant documents on behalf of the Company in dealing with Tender pertaining to —BI & Analytics Software dt. _____. He is also authorized to attend meetings and submit Technical and Financial bid/information as may be required by you in the course of processing above said Tender.

Thanking you,

Authorized Signatory (Name)
Name & Signature of Authorized Person

Company's Seal.

17. COMMERCIALS

Name of the bidder :.....

S. No.	Description	Price (Rs)
1.	<p>Cost for the cloud server</p> <p>Cloud server to be in min tier4 data centre Enterprise cluster- Enterprise Product with ability to integrate different sources of data. A platform to accommodate both structured and unstructured data addressing future needs.</p> <p>Implementation and Deployment</p> <ul style="list-style-type: none"> • Big Data architecture • Data Management with existing Data Bases • Minimum 2 different data bases connectivity & Compatibility • Integration with existing Data Bases with enterprise cluster • Dashboard Development Services • ETL/Data Mart Creation • Universal Reports generation as per above given scope of work. • Liaising with end-users and 3rd party suppliers • Analyzing raw data, drawing conclusions & developing recommendations • Data entry, data auditing, creating data reports & monitoring all data for accuracy • Designing, developing and implementing new functionality. • Carrying out specified data processing and statistical techniques. • Mobile Enablement 	
2.	<p>Individual Depot Deployment</p> <ul style="list-style-type: none"> • Integration with Enterprise cluster • Scheduling of Dashboards • Mobile enablement of Dashboards • Training 	
3.	Additional Data base connectivity Cost	
4.	AMC Charges per year for next 4 years.	

Note: 1) The AMC will start after completion of one year warranty period.

2) There is no restriction on the number of users at Central Office, Regional Offices/ Divisional offices, Depot Level.

Signatures & Seal of the Authorized Signatory