Project Brief

Transport Information Data Exchange (TIDE)

Project Code: PTIDEPB-170419-REV01

Project Information	
Project Name	Transport Information Data Exchange (TIDE)
Project Background	An Interactive Streaming Data Platform that captures and analyzes data from various Public Transport Operators and Authorities to build insights that will help improve Public Transport Performance, Productivity and Profitability.
Project Sponsor	Ministry Of Transport
Project Owner	Land Public Transport Agency
Project Director	Dato' Zailani Safari
Project Manager	Idrul Fairuz Ali Khan
Date Prepared	14 May 2019
Working Committee	
Working Committee	1. Lutfi Hassan 2. Muhammad Fairuz 3. Zulkarnain Ali
Project Categorization	
Location	Federal Territory Kuala Lumpur
Category	System Application Development
Sector	Transportation & Storage
Sub-Sector	Land Transport and Transport via Pipelines
Planned Start Date:	4 May 2020

National Strategic Plan	
Strategic Thrust	Thrust 5: Strengthening Infrastructure to Support Economic Expansion
Focus Area	Focus Area A: Building and Integrated Need Based Transport System
Strategy	Improving Safety, Efficiency and Service Levels of Transport Operations
Outcomes	Improving Coverage, Quality and Affordability of Digital Infrastructure

Stakeholder Analysis	
Ministry Of Transport	**BENEFICIARY & PROJECT OWNERS**
	Terms of Reference (TOR) 1. Defining the Project Vision 2. Overseeing the Project Progress 3. Anticipating the Target Needs 4. Primary Liaison to the Target 5. Funding the Project
	Impact of Project 1. Centralized Transportation Data Warehouse that facilitates deep analysis and research on various aspects of the eco system
Public and Land Transportation Agency	**PROJECT CONTROLLERS**
	Terms of Reference (TOR) 1. Appointment of Project Managers 2. Provide / Approve Resources 3. Defining and verifying the Project Requirements 4. Approving the Project Progress 5. Approving the Project Deliverables 6. Primary Liaison to the Project Owners 7. Manage Project Teams
	Impact of Project 1. Crowd Sourcing via Transportation Open API to facilitate the development of Public centric Transportation Mobile Apps
Application Developers & Researchers	**TARGET**
	Terms of Reference (TOR) 1. To develop user friendly mobile application using the Transportation Open API 2. Research on the Transportation Landscape in Malaysia
	Impact of Project 1. Smart Travel Planner 2. On-demand Travel Convenience 3. Instant Parking Rates, Availability & Location 4. Convenient Taxi Booking
Rail Commuters	**Terms of Reference (TOR)** 1. Utilization of Rail Transport
	Impact of Project 1. Arrival to Destination on Schedule

Objective Analysis	
Main Objective	**Commuters are convinced that the public transportation system in Malaysia is safe and reliable**
Goals	**1. Reduction on Carbon Emission from Land Vehicle** **2. Reduction on Fatality Rate from Road Accidents** **3. Reduction in Road Congestion** **4. Reduction in Road Maintenance Cost**
	Indicators 1. 10% Reduction in Environmental Carbon Reading from "Jabatan Alam Sekitar" 2. 10% Reduction in Road Accidents reported at hospitals 3. 10% Reduction in Road Traffic 4. 10% Reduction in Actual Road Maintenance Cost
	Means of Verification 1. Jabatan Alam Sekitar 2. Accident Reports from Hospitals 3. Traffic Report from LLM 4. Road Maintenance report from LLM
	Assumptions 1. Jabatan Alam Sekitar is capturing accurate data on Carbon Emission 2. Hospitals are capturing accurate data on Accident cases 3. LLM is capturing
Outcome	**Public Transportation System in Malaysia is safe and reliable**
	Indicators 1. Increase in Commuters from 35,800,000 P/A to 39,380,000 P/A 2. Impact on Revenue (+3,580,000 @ RM840 = RM 3,007,200,000 P/A)
	Means of Verification Real-time Descriptive Analytics in comparison to past trends
	Assumptions 1. Real-time Commuting Data extracted from the various Public Transportation Authorities and Operators are accurate
Outputs	**1. An Integrated Transportation System is in place** **2. An effective Public Transportation Scheduling and Control System is in place**
	Indicators 1. Real-time transportation data from all Public Transportation Operators are integrated with a centralized system at the Public Transportation Authority within 24-months 2. Accurate Public Transportation Scheduling is achieved within 48-months
	Means of Verification 1. TIDE is operational within 24-months
	Assumptions Collaboration efforts has been agreed between the Public Transportation Operators and Authority

Activities	**1. Technical Study on the systems currently available at each Public Transportation Operators** **2. Develop and ICT Infrastructure to store and analyze Public Transportation Data extracted from all Public Transportation Operators** **3. Advise the Enforcement Division at the Public Transportation Authorities to minimize the gaps between the Baseline and Actual Public Transportation Scheduling through various Enforcement Intervention Programmes**
	Indicators 1. Technical Study Report from all Public Transportation Operators must be available within 6-months. 2. Design, Supply, Installation, Testing and Commissioning of the ICT Infrastructure at Public Transportation Authority is completed 12-months upon completion of the Technical Study. 3. Public Transportation Scheduling Gap Analysis report is presented to the Enforcement Division within 6-months from commissioning of the ICT Infrastructure
	Means of Verification 1. Project Progress Report
	Assumptions Collaboration efforts has been agreed between the Public Transportation Operators and Authority

ACTIVITIES		4Q17 (RM)	1Q18 (RM)	2Q18 (RM)	3Q18 (RM)	4Q18 (RM)	1Q19 (RM)	2Q19 (RM)	Total	%
Milestone 1: Project Management		1,258,885	1,258,885	1,258,885	1,258,885	1,258,885	1,258,885	1,258,885	**8,812,195**	**18.2**
Means of Verification Project Activity Diary	Resources 1. Project Manager 2. Business Analyst 3. Asst. Business Analyst									
Milestone 2: Analysis		279,696	279,695						**559,391**	**1.2**
Means of Verification Analysis Report	Resources 1. Project Manager 2. Chief Technology Officer 3. Network Engineer									
Milestone 3: Planning		126,488	126,488	126,488					**379,464**	**0.8**
Means of Verification Work Breakdown Strucuture	Resources 1. Chief Technology Officer 2. Business Analyst 3. Test Manager 4. Lead Developer									
Milestone 4: Analytic ICT Infrastructure				5,371,252	5,371,252				**10,742,504**	**22.1**
Means of Verification UAT Report	Resources 1. Business Analyst 2. Test Manager 3. Engineer									

ACTIVITIES		4Q17 (RM)	1Q18 (RM)	2Q18 (RM)	3Q18 (RM)	4Q18 (RM)	1Q19 (RM)	2Q19 (RM)	Total	%
Milestone 5: Integrated Transportation System										
Means of Verification UAT Report	Resources 1. Chief Technology Officer 2. Business Analyst 3. Test Manager 4. Lead Developer			3,192,450	3,192,450				**6,384,900**	**13.1**
Milestone 6: Public Transportation Scheduling & Transportation System										
Means of Verification UAT Report	Resources 1. Chief Technology Officer 2. Business Analyst 3. Test Manager 4. Lead Developer 5. SME				8,047,040	8,047,041			**16,094,081**	**33.2**
Milestone 7: Testing										
Means of Verification PAT & FAT Report	Resources 1. Chief Technology Officer 2. Business Analyst 3. Test Manager 4. Lead Developer					1,978,802	1,978,803		**3,957,605**	**8.1**
Milestone 8: Training										
Means of Verification User Manuals Training Manuals Attendance Sign Off	Resources 1. Chief Technology Officer 2. Business Analyst 3. Test Manager 4. Lead Developer						1,530,310		**1,530,310**	**3.1**

ACTIVITIES		4Q17 (RM)	1Q18 (RM)	2Q18 (RM)	3Q18 (RM)	4Q18 (RM)	1Q19 (RM)	2Q19 (RM)	Total	%
Milestone 9: Closure										
Means of Verification All Reports as in Checklist	Resources 1. Chief Technology Officer 2. Business Analyst 3. Test Manager 4. Lead Developer						42,727	42,728	**85,455**	**0.2**
	48,545,905	**1,665,069**	**1,665,068**	**9,949,075**	**17,869,627**	**11,284,728**	**4,810,725**	**1,301,613**	**48,545,905**	**100.0**

Proposed Maintenance	
Total Cost: RM 29,127,543	Duration: 5-years upon Handover

Risk Register	
Risk 1: Real-time Commuting Data extracted from the various Public Transportation Authorities and Operators are inaccurate (**Probability: 45%**)	
Impact: **Quality**	Counter Measures **1. Preventive** **a. Data Quality Test to be included as part of the Technical Study Phase**
Risk 2: Carbon emission data collected by Jabatan Alam Sekitar is inaccurate (**Probability: 45%**)	
Impact: **Quality**	Counter Measures **1. Preventive** **a. Data Quality Test to be included as part of the Technical Study Phase**
Risk 3: Hospitals do not have accurate data on Accident cases (**Probability: 15%**)	
Impact: **Quality**	Counter Measures **1. Preventive** **a. Data Quality Test to be included as part of the Technical Study Phase**
Risk 4: LLM is capturing inaccurate data on Traffic and Road Maintenance (**Probability: 30%**)	
Impact: **Quality**	Counter Measures **1. Preventive** **a. Data Quality Test to be included as part of the Technical Study Phase**
Risk 5: Collaboration efforts has not been agreed between the Public Transportation Operators and Authority (**Probability: 60%**)	
Impact: **Deadline**	Counter Measures **1. Preventive** **a. Top Managements from all Public Transportation Operators, Authority and Ministry meet to establish collaboration**