



**GOVERNMENT OF BERMUDA**  
**Ministry of Tourism and Transport**  
**Ministry Headquarters**

Date: November 23, 2018

**Ref: Request for Information (RFI) Automated Fare Media Solution for Public Transport.**

The following addendum supersedes information contained issued for the RFI to the extent referenced. This addendum forms part of the RFI documents and will be subject to all of the conditions set out in the RFI.

This addendum # 1 contains 6 pages.

**Questions (Q) and Responses (R)**

**Bermuda Public Transport – (Buses & Ferries):**

**Q1.** Could you provide a comprehensive description of the public transit network in Bermuda under the scope of the fare collection system, including different available modes (buses, ferries, etc.), lines, number of operating vehicles, tariff system (flat, zonal, origin destination, etc.), annual ridership and fare revenue for each of the different modes?

**R1.** There are currently ninety eight (98) buses in the fleet. The current schedule requires eighty eight (88) buses at peak time. There are (ten) 10 ferries, (six (6) high speed and four (4) slow speed). Peak summer months requires four (4) high speed ferries and two (2) slow speed ferries. For additional information regarding the Bermuda Public Transportation system please visit the Government of Bermuda website at:

- o <https://www.gov.bm/department/public-transportation>
- o *The Bus Schedule is located at: (Under Review)*
- o <https://www.gov.bm/sites/default/files/bus-schedule-april-2015.pdf>
- o *The Ferry Schedule is located at: (Note there are separate summer and winter schedules)*
- o <http://www.marineandports.bm/Documents/Ferry/Winter%20Ferry%20Schedule%202018.pdf>
- o <http://www.marineandports.bm/Documents/Ferry/Summer%20Ferry%20Schedule%202018.pdf>

Annual Ridership figures not 100% revenue generating, as Students, Persons over 65 and Special Persons ride free of charge on the presentation of specialized identification.

Estimate ridership buses:	1,090,000
Estimate ridership ferries:	550,000 – 650,000 (range)

Estimated Annual Receipts:

Buses:	\$8,140,000
Ferries:	\$1,600,000

Note: Tokens and transportation passes purchased at the Bus Terminal are used interchangeably in the buses and ferries hence bus receipts above, will include an indeterminate amount of fare media actually used on the ferries.

- Q2.** What are the different products and fares currently available in the public transit network in Bermuda subject to this RFI?
- R2.** Existing fare media consists of: Cash, tickets (paper based), Tokens and Transportation Passes. The existing system operates under a two zone system: Under Review.

**Current one way fares:**

\$2.75 Cash 3-Zone Child (Age 5 -15)  
\$3.50 Cash 3-Zone Adult  
\$2.75 Token 3-Zone Child/Adult  
\$2.75 Cash 14-Zone Child  
\$5.00 Cash 14-Zone Adult  
\$3.50 Token 14-Zone Child  
\$4.50 Token 14-Zone Adult  
Adult 3-Zone Tickets (Booklet of 15) \$25.00  
Child 3-Zone Tickets (Booklet of 15) \$ 9.50  
Adult 14-Zone Tickets (Booklet of 15) \$37.50  
Child 14-Zone Tickets (Booklet of 15) \$ 9.50

**Transportation Passes (All Zones)**

1 Day	Adult	\$19.00
	Child	\$ 9.50
2 Day	Adult	\$31.50
	Child	\$16.00
3 Day	Adult	\$44.00
	Child	\$22.00
4 Day	Adult	\$48.50
	Child	\$24.50
7 Day	Adult	\$62.00
	Child	\$ 31.00

**Monthly Pass (All Zones)**

Adult Monthly Pass	\$ 69.00
Adult 3 Month Pass	\$169.00

- Q3.** What is the annual volume of: Cash ticket purchases of tickets/passes?  
**R3.** Not readily available
- Q4.** What is the annual volume of: Credit card purchases of tickets/passes?  
**R4.** Not readily available
- Q5.** Does the new/proposed solution need to supply a fare box, and/ or have to deal with and physical/cash payments? Or could proposed solution operate separately from exiting cash/paper based fare?  
**R5.** It is intended that the proposed solution eventually replace the existing cash, ticket and token based system. We recognize that initially both systems will run simultaneously.

- Q6.** Who would be performing the on vehicle installation?  
**R6.** Responsibility for installation will depend on the complexity of the provider onboard devices.
- Q7.** What is anticipated deployment and commissioning period?  
**R7.** Estimated at: 4 to 6 months after contract signing.
- Q8.** How many lines and vehicles, how many operators, and passengers / customers do you have?  
**R8.** Please see response R1
- Q9.** What is the current fare and ticketing system and tariffs (zones/distance-based/flat fares? proportion of single tickets / weekly / monthly / yearly)?  
**R9.** Please see response R2
- Q10.** Which data do you already track (real-time vehicle monitoring, ticket sales data, origin-destination data,)?  
**R10.** Real time vehicle monitoring (buses), origin-destination data: None:  
 Fare Media data... as provided compiled manually  
 Real time vehicle monitoring (ferries), each vessel equipped with an AIS (Automatic Identification System). Origin-destination data therefore available.  
 Fare Media data... as provided compiled manually
- Q11.** What would be the expected contract length with the vendor?  
**R11.** Open to discussion and dependent on the structure of the agreed up on agreement
- Q12.** What is the implementation period for the project?  
**R12.** Estimated at: 4 to 6 months after contract signing.
- Q13.** What is the expected go-live date?  
**R13.** Estimated at: 4 to 6 months after contract signing.
- Q14.** Is the route and line data available in GTFS or excel format?  
**R14.** GTFS under development – expected to be available at time of implementation.
- Q15.** Could you please provide the number of vehicles and ferries have to be equipped with validators and driver screen?  
**R15.** Buses: All  
 Ferries: To be determined as one must consider the durability of said devices given the wet, salty conditions in Bermuda
- Q16.** On chapter 3 you have described passenger real-time information system. Are you also looking to procure under this tender new information displays? If yes, could you provide some more technical information, how many you need and where they will be installed?  
**R16.** The procurement of new information displays is possible, please present all available options.
- Q17.** Who will be responsible for the SIM card and data costs?  
**R17.** SIM and related data cost will likely be dealt with under a separate contract.

- Q18.** Could you please describe how do you manage concessions (special pricing) today? For example are the pensioners or students information available online?
- R18.** The Bermuda Omnibus Regulations 2012 provides that students ( persons under the age of 19 and or in school) and special persons (defined as, a person of or above the age of 65 or a person suffering from a disability, physical or otherwise) are permitted to utilize public transportation free of charge. A special identification card is provided to the individual to be presented to the conductor/attendant at the time they board the bus or ferry.
- Q19.** Can you provide some information on complexity of pricing? How many zone (will they stay as they are today)?
- R19.** Please see Q1. – The current zoning system will remain the same in the short-term.
- Q20.** Can you please provide details on how the integration is intended to work with transient bus and ferry passengers, if at all? Hop on off? Passes, other prepaid or concession scenarios, etc.
- R20.** The existing daily, weekly, etc., pass system represents a hop on off system (passes are validated by hole punch). Any future system should provide for transfers between bus routes and ferry routes.
- Q21.** If the answer to the question above, is “yes”; what would be some of the key parameters/requirements for such an arrangement
- R21.** Open to discussion, please present all available options.
- Q22.** The nature of the contract - is the Bermuda government open for PPP or other arrangements where the operations can be run under a concession?
- R22.** Yes.
- Q23.** Are there any existing fare integrated products between the different public transit modes in Bermuda? If not, are they envisaged?
- R23.** No – Fares valid for buses and ferries.
- Q24.** How are the transit fare rules enforced and how is the inspection of tickets currently achieved? What is the current process if a rider is being inspected and does not hold a valid ticket?
- R24.** Generally fare rules are enforced by the bus conductor or ferry attendant, riders that do not hold a valid ticket are not permitted to enter the bus or ferry.
- Q25.** Are there any (or are they envisaged) alternative transport modes to public transport and private cars currently operating in Bermuda (e.g. ride-hailing such as Uber or Lyft, car-sharing such as Zipcar, dock or dock-less bike-sharing such as Jump, etc.)?
- R25.** Not at this time.
- Q26.** Would Bermuda have interest in enabling multiple digital sales channels for the public transit tickets so that they can be distributed across multiple platforms? If so, are there any specific requirements or restrictions related?
- R26.** We welcome information on the options.

### **Department of Public Transportation – Bus Fleet:**

- Q27.** Could you please provide some background information about the existing infrastructure, also number of buses in the fleet?
- R27.** There are currently ninety eight (98) buses in the fleet. The current schedule requires eighty eight (88) buses at peak time. There is a central garage/depot in Devonshire and a Central Terminal in the City of Hamilton. There are two additional outlying depots in the eastern and western ends of the island, namely St. George and Dockyard.
- Q28.** Do the people enter only from front doors or all of them? In other words, how many “validators” are required per bus?
- R28.** Currently passengers load through the front door only, although future buses may include for mid-bus access for strollers and person with physical disabilities.
- Q29.** How do you do route planning today? Is this data accessible in GTFS format?
- R29.** The bus schedule is developed in a software application with an exportable file format. The availability of the GTFS format to be confirmed.
- Q30.** How many bus stops are there in active use?
- R30.** There are approximately 720 bus stops, 110 of which have an accompanying shelter. The remainder are roadside poles.
- Q31.** Could you please provide a list of vehicles make and model? Including number of exit/entry points for validation.
- R31.** The Government of Bermuda currently make use of the City Coach, front door only, produced by MobiPeople, Portugal. For additional information please visit the Mobipeople website **at:** <https://www.mobipeople.pt/en/product-item/city-2/>

### **Department of Marine & Ports – Ferry Fleet:**

- Q32.** Could you please provide some background information about the existing infrastructure, also number of ferries in the fleet?
- R32.** There is a central maintenance facility and a central ferry terminal both located in the City of Hamilton. There are currently (ten) 10 ferries, (six (6) high speed, four (4) slow speed). There are outlying terminals in the eastern and western ends of the island St. George and Dockyard (primarily Cruise Ship Passengers), with a number of stops as depicted by the aforementioned schedule.
- Q33.** Do the people enter only from front doors or all of them? Again, how many validators are required per Ferry?
- R33.** Two validators would be required for the high speed ferries as the Hamilton and Dockyard locations currently bow load, however these ferries do have the capacity to side load thus would require a second validator. The slow speed ferries are side loading only, requiring one validator.
- Q34.** How do you do route planning currently? Is this data accessible in GTFS format?
- R34.** Route planning and ferry capacity required is based on previous demand. Data is collected manually. The data is not accessible in GTFS format.
- Q35.** What is the annual passenger journey count on the ferry service?
- R35.** Estimated to range between 550,000 – 650,000 persons comprised of local and visiting (primarily cruise ship) commuters.

**Ref: System Questions:**

- Q36.** Can you please explain the open and closed system on page 2, section 3?
- R36.** We acknowledge that in order to provide an RTPI cloud based validation of fare media that in itself represents an open system. However.....see response R37.
- Q37.** Please clarify when you say you prefer “a closed system operated by the Government of Bermuda”, do you mean you want this application to be operated solely by the GOB and not the company granted the job? Or the GOB and the company granted the job only will have access to the application?
- R37.** We would favor a system that is not completely hosted outside of Government/Bermuda and that the main infrastructure where possible be internal to and managed by the Government.
- Q38.** In relation to the requirement, ‘[The solution] must allow for GPS tracking of buses or ferries to provide real time arrivals at Bus and Ferry stops’, does the scope include the provision of displays and associated back office services at Bus and Ferry stops to provide schedule and arrival time information (i.e., a Real Time Passenger Information System, RTPI), or simply the provision of real time updates into an existing RTPI system?
- R38.** Yes – Back office must be provided; no RTPI exist now.
- Q39.** In relation to the requirement, ‘Would your solution allow for real time notification of services such as schedule changes or cancellations?’ Information relating to schedule changes and cancellations usually comes from the management function that is overseeing the Bus and/or Ferry services.  
Note: We interpret this requirement as being the communication of schedule change messages from this management function to users of our ticketing solution in real time, rather than for the creation of such a management function. Is this correct?
- R39.** No – this means creation of the function.
- Q40.** The RFI is silent on revenue management. Will the solution use existing arrangements for collecting revenue from the use of bank payment cards?
- R40.** Yes - Currently the card payment system for the Government of Bermuda resides with HSBC Bermuda.
- Q41.** Could you provide details of any onboard of backend systems that we may be required to integrate with?
- R41.** The Government of Bermuda’s financial management system is the JDEdwards, Enterprise One (E1) financial system. Any potential system will be required to integrate with this system. Not deemed to be an issue as uploads to the system can be accomplished using Excel or a Flat file format.
- Q42.** Is any CAD/AVL equipment currently in use onboard the Bus and Ferry networks in Bermuda?
- R42.** Computer Aided Dispatch (CAD) - No  
Automated Vehicle Location (AVL) Non-existent in buses but each ferry is connected to an AIS system.

**END OF ADDENDUM #1**