

# Next Generation Ticketing

## Market Consultation Document



7<sup>th</sup> November 2019

## Important Notice

The market consultation document is preliminary in nature and is being made available on the understanding and on condition that it is to be used solely for the purposes outlined below. Participants are advised that the market consultation document does not purport to contain all information relevant for the purposes of any tender competition and the market consultation exercise.

The National Transport Authority (“NTA”) does not accept, individually or collectively, any responsibility or liability (1) in respect of the accuracy, adequacy or completeness of the contents of the market consultation document and (2) for any opinion, statement or conclusion contained in the market consultation document. Nor do they make any representation or warranty in respect of any such opinion, statement or warranty.

The market consultation document does not constitute a representation that Next Generation Ticketing will in fact be procured, in whole or in part. Nor does it constitute an invitation to treat, an invitation to tender or an offer to enter into a contract.

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Participants are advised that NTA is subject to the Freedom of Information Act 2014 and the Data Protection Acts 1988 to 2003.

If a Participant considers that any of the information supplied with its response should not be disclosed because of its commercial sensitivity, confidentiality or otherwise, they **must**, when providing this information, **clearly identify the specific information they do not wish to be disclosed and clearly specify the reasons for its sensitivity**. NTA shall take such statements into consideration in the event they receive a request pursuant to the Acts which relates to the information provided. It is not sufficient for a Participant to include a statement of confidentiality encompassing all the information provided.

## Contents

<b>1</b>	<b>Glossary of Terms.....</b>	<b>1</b>
<b>2</b>	<b>Introduction .....</b>	<b>2</b>
<b>2.1</b>	<b>Transport for Ireland .....;Error! Marcador no definido.</b>	
<b>3</b>	<b>Policy Context .....</b>	<b>5</b>
<b>4</b>	<b>Objectives of the Market Consultation.....</b>	<b>6</b>
<b>5</b>	<b>Purpose and Scope of the Market Consultation .....</b>	<b>7</b>
<b>5.1</b>	<b>Context.....</b>	<b>7</b>
<b>5.2</b>	<b>Market Consultation.....</b>	<b>7</b>
<b>5.3</b>	<b>Expressions of Interest.....</b>	<b>7</b>
<b>5.4</b>	<b>Timeline .....</b>	<b>8</b>
<b>5.5</b>	<b>Confidentiality .....</b>	<b>8</b>

## Appendices

### Appendix A

Market Consultation Process Reply Form

### Appendix B

Declaration

# 1 Glossary of Terms

ABT	Account Based Ticketing
AVL	Automatic Vehicle Locator
cEMV	Contactless Europay, Mastercard & Visa
MaaS	Mobility as a Service
NGT	Next Generation Ticketing
NTA	National Transport Authority (“Authority”)
PMV	Pole Mounted Validator
PSO	Public Service Operator
RTPI	Real Time Planning Information
TGX	Refers to current ticketing equipment on Dublin Bus
TFI	Transport for Ireland

**Table 1** Glossary of Terms

## 2 Introduction

The National Transport Authority (Authority) is seeking to procure Next Generation Ticketing (NGT) capabilities incorporating an Account Based Back Office along with new validation devices and associated services.

NGT is the Authority's programme to renew the ticketing equipment and methods of payment for customers starting with urban bus services. Some challenges that the urban Bus services face today are:

- ) The second biggest source of bus delays, after traffic congestion, is the payment process at bus stops
- ) Payment by cash is still common (between 15%-20% of journeys) slowing down the boarding time
- ) Even with Leap Card, the complexity of stages means a large percentage of passengers have to interact with the driver, with resultant delays at bus stops (due to the fact that NTA does not currently have a flat fare and operates a tag-on only system)
- ) Multiply by the number of busy stops on a route and those delays accumulate to add significantly to the overall journey time.

The Authority plans to implement an Account Based Ticketing (ABT) system incorporating open payments:

- ) Contactless Debit & Credit Cards to be accepted, including Apple Pay and Google Pay
- ) Fares Changes - New 90 minute multi-modal / all services fare (to make the implementation easier)
- ) QR codes to be accepted (app and possibly paper) validated by an optical reader module
- ) Electronic Tokens and Identifiers as means of payment to support concessionary fare products on different form factors including card and mobile (virtual cards)
  
- ) Alternatives for mobile ticketing e.g. based on Bluetooth or location based technologies to cater for a possible future "Be-In Be-Out" model

The new ABT ticketing system will enable

- ) Cashless operations to be introduced
- ) All self-service ticketing / no driver interaction to be implemented for mass transit bus services

The Authority is currently considering procuring the following high level scope in order to deliver on this vision.

<b>Core</b>	<b>Incremental</b>
<p>)] A fully functioning and fit for purpose Account Based Back Office capable of providing the foundations for subsequent extension into MaaS across all mobility modalities (including regional and inter-city bus services, commuter rail and inter-city rail, light rail and other forms of mobility)</p>	<p>)] Migration of the current LEAP card based system to a tokenized Account Based system supporting physical and/or virtual cards</p>
<p>)] Supply, configuration and installation of PMV's (Pole Mounted Validators) for Dublin City Bus Services which are capable of accepting tokenized cEMV and QR/Barcode transactions, and all necessary supporting elements (e.g. on-bus &amp; in-depot hardware &amp; software and associated services)</p>	<p>)] Additional Ticketing Equipment for other PSO / Commercial services including Regional / Commuter / Urban Bus, Rail, Light Rail &amp; Metro</p> <ul style="list-style-type: none"> <li>o This could potentially include additional Driver Ticket Machines, PMV's, TVM's, &amp; Gates.</li> <li>o This could potentially include re-housing the PMV or reader so as to be usable inside gates or for deployment on rail stations and light rail stops</li> </ul>
<p>)] Provision of Acquirer Services for cEMV transactions including aggregation (i.e. "model 2")</p>	<p>)] Integration with MaaS modality suppliers</p>
<p>)] Integration of the PMV with existing legacy systems where required e.g. current AVL,, (e.g. to obtain route and service information TGX150 (e.g. in a "known fare" scenario) etc...</p>	<p>)] Integration with any new systems acquired e.g. Future RTPI/AVL solutions</p>
<p>)] Provision of cEMV compatible Inspection Devices integrated with the back-office</p>	<p>)] Provision of white-label cEMV cards either physical or virtual</p>
<p>)] Full Test Life Cycle Management including a fully functioning test centre</p>	<p>)] To incorporate/subsume the QR code ticketing app into the overall ABT solution and back-office so as to be a seamless part of the fare collection offering, which may include using the QR code as an accepted token within the transport ecosystem</p>
<p>)] Full DBOM (Design, Build, Operate &amp; Maintain) SLA management by the supplier including asset management, compliance with standards,</p>	

<b>Core</b>	<b>Incremental</b>
maintenance and back office support services	

It is proposed that this capability will be procured under a single party framework contract.

Before it does so, the Authority wishes to discuss its intentions and assumptions with the market. Consequently the Authority wishes to invite interested parties to partake in this Market Consultation exercise. The information received in this consultation shall enable the Authority to make an informed decision on its requirements for such an initiative, should the Authority decide to proceed with any further procurement.

The Authority is expected to commence the process to tender for a supplier(s) in early 2020.

### 3 Policy Context

The basis for the NGT programme has come from several strands:

- ) The current re-design of the bus network in Dublin, known as [Bus Connects](#) intends to create a bus system for Dublin fit for a modern vibrant city that enables more people to travel to more places, conveniently and efficiently. Bus Connects will:
  - Transform Dublin’s bus system, so that when it comes to speed, reliability, punctuality and convenience, journeys by bus will be far superior.
  - Enable more people to travel by bus than ever before, and allow bus commuting to become a viable and attractive choice for employees, students, shoppers, families and visitors.
  - This will be achieved by delivering the following:
    - Next generation bus corridors
    - Bus Rapid Transit
    - Redesigning the network of bus routes
    - State-of-the-art ticketing system
    - Cashless fare payment system
    - Simpler fare structure
    - Segregated cycling infrastructure
    - Refreshing the bus livery
    - Rolling out new bus stops with better signage and information
    - Cleaner technology
- ) The overall aim of the Authority is *[“To contribute to the economic, social and cultural progress by providing for the efficient, effective and sustainable movement of people and goods”](#)*.



## 4 Objectives of the Market Consultation

The overall objective of the NGT market consultation is to allow the Authority to outline its plans to the market in advance of the commencement of the procurement process.

In 2016, the Authority issued a Market Consultation on ABT solutions in general. In addition to the information obtained in that 2016 consultation, the Authority has since built extensive knowledge and insight in ABT solutions, Open Loop payment and QR ticketing.

Therefore, this market consultation is **not** focused on gathering detailed information about ABT solutions or reference implementation and projects.

The specific objectives of the consultation are as follows:

- ) To better understand the commercial models emerging within the industry
- ) To get a better understanding of trends or common practices in ABT solutions with respect to scope and contract model
- ) To better understand the operational models where the supplier takes a larger operational responsibility for the technical and business operations of an ABT solution
- ) To understand the industry view on addressing the end-to-end payment chain and several parties involved in Open Payment, with a focus on the risk, integration effort and time and on-going certification and compliance to payment industry criteria
- ) To understand the various product and platform strategies and how the industry can deliver towards these new strategies
- ) To understand the evolution of an Account Based back office to Mobility as a Service (MaaS)

## 5 Purpose and Scope of the Market Consultation

### 5.1 Context

From both technical and operational perspectives, the Authority has a view as to how the services for NGT should be procured. However, the Authority would like to discuss and examine any assumptions the Authority has made, with the market. The Authority strongly encourages potential providers to put forward any innovative ideas and suggestions pertinent to this consultation, as this is the opportune time to provide feedback.

All responses will be appreciated. Please note that responses to these consultation questions shall not constitute an obligation on behalf of the Authority in any way, and are merely to facilitate its internal decision making. The responses will ultimately lead to a more effective procurement framework. Where specified by the respondents, responses shall be treated as strictly private and confidential and shall be solely for the purpose of informing the planned procurement.

### 5.2 Market Consultation

Interested parties are requested to respond to the questions set out in Appendix A of this document. Responders are also invited to a supplier briefing with the Authority in Dublin on the ***11<sup>th</sup> of December 2019*** where the Authority will outline its plans related to the Procurement phase of the programme.

In order to allow us source a suitable location can you please indicate your intention to attend this session along with the name, title & email address of any attendees (up to a maximum of four attendees per respondent) to [procurement@nationaltransport.ie](mailto:procurement@nationaltransport.ie) by the ***20<sup>th</sup> of November 2019***.

This is **not** a call for competition.

### 5.3 Expressions of Interest

Contractors involved in ticketing or related technology who wish to engage in consultation with the Authority can submit an Expression of Interest by completing the Market Consultation Process Reply Form enclosed in Appendix A and the Declaration enclosed in Appendix B.

Completed Appendix A and Appendix B forms must be received by the Authority on/or before ***12.00 noon on Wednesday 4<sup>th</sup> of December 2019***.

Completed forms should be submitted via email to [procurement@nationaltransport.ie](mailto:procurement@nationaltransport.ie) for the attention of Mr Mark Bradwell, National Transport Authority.

## **5.4 Timeline**

It is the intention of the Authority (or its representatives) to review all expressions of interest submitted. After this review, the Authority will engage in a market briefing, as set out in section 5.2.

Participants should indicate their availability for this briefing. If the Authority are unable to meet a participant, this shall not prejudice, prevent or exclude this party from any current or future procurement.

## **5.5 Confidentiality**

Participants are advised that the Authority is subject to the Freedom of Information Act 2014 ("the Act"). If Participants consider that any of the information supplied as part of this procedure should not be disclosed because of its commercial sensitivity, confidentiality or otherwise, it must, when providing this information, clearly identify the specific information it does not wish to be disclosed and clearly specify the reasons for its sensitivity. The Authority shall take such statements into consideration in the event they receive a request pursuant to the Act which relates to the information provided by the interested party. Please note, it is not sufficient to include a statement of confidentiality encompassing all the information provided in the response.

## Appendix A

### Market Consultation Process – Reply Form

This section presents (amongst additional information which provides context) the questions to be answered by the respondent.

Respondents should respond to the questions below in the format outlined but in a separate document providing no more than two pages per question.

#### General Information

Name of Participant	
Address	
Contact person	Name: Telephone no: Email address: Website:
Company registration number	
Country of registration	
Registered office address (if different from above)	

#### Question 1-A

Provide a general overview of your relevant services and products.

**Response:**

#### Question 1-B

Provide an overview of services or products you have provided previously to clients with similar requirements.

**Response:**

## Proposed Solution

### Question 2-A

Would you be interested in bidding for a contract for Next Generation Ticketing as described in this document (i.e. are there aspects of the scope which do not interest you)?

If no, please expand.

**Response:**

### Question 2-B

Outline the types of contracts you typically enter into for the services / products on similar NGT type projects?

**Response:**

## Competition Process

### Question 3-A

The Authority has a preference for a single source contractor where providers can come together to deliver the services.

Which of the following would you bid as:

Prime Contractor <input type="checkbox"/>	Consortium <input type="checkbox"/>	Other <input type="checkbox"/>
Subcontractor <input type="checkbox"/>	Joint Venture <input type="checkbox"/>	

**Response:**

### Question 3-B

The Authority intend to utilise the Competitive Dialogue Process to procure the services related to the NGT Programme. Please provide any observations/recommendations with regards to your experience with this type of competition

**Response:**

## Contract

### Question 4-A

The Authority intend to enter into a long term contract with the successful bidder (~15 years +). Please outline whether you consider this contract term to be acceptable

**Response:**

## Scope

### Question 4-A

What is the vendor's back-office system strategy with regards to Mobility as a Service (MaaS)?

Specifically elaborate on support for MaaS integration in existing or future products from the vendor.

**Response:**

### Question 4-B

What is the vendor's vision and strategy towards continuous evolution of the ticketing and payment landscape?

What is the vendor's core strategy and what partnership(s) does the vendor consider to withstand the rapid evolution in payment and ticketing?

**Response:**

### Question 4-C

What is the vendor's approach to risk, integration effort/time and certification/compliance with regard to Open Payments bearing in mind the end-to-end nature of such payments and the parties involved?

**Response:**

### Question 4-D

What is the vendor's vision and strategy towards emerging product and platform landscapes?

**Response:**

## Commercial Model

### Question 5-A

Historically the Authority have generally used a traditional commercial model, the two key components being:

1. Upfront payment for the Design, Build and Supply of solutions; and
2. Ongoing payments for Maintenance and Support.

Does the vendor support a “traditional” commercial model broadly in line with that outlined above?

Does the vendor support other commercial models (e.g. Solution as a Service or DBOM)? If so, please provide brief details of the alternative models available to the Authority, with their relative advantages and disadvantages.

**Response:**

## **Appendix B**

### **Declaration**

We wish to participate in the market consultation process with the Authority regarding Next Generation Ticketing.

We acknowledge that we shall not be entitled to receive any payment in relation to such consultation.

Dated \_\_\_\_\_

Name (in block letters): \_\_\_\_\_

Signed: \_\_\_\_\_