Presentation for the Investor’s Conference

“Things should be made as simple as possible, but not any simpler.”
Albert Einstein
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THIS MEMORANDUM DOES NOT CONSTITUTE A SOLICITATION OF BIDS FOR ANY ASPECT OF THE AFCS PROJECT. SOLICITATIONS OF BIDS AND BIDDING GUIDELINES WILL BE PROVIDED IN THE INSTRUCTIONS TO PROSPECTIVE BIDDERS AND INSTRUCTIONS TO BIDDERS DISTRIBUTED AT A LATER DATE.
Part I: Project Description

- Current System
- Contactless AFC System
- Project Objectives
- Concession Structure
- Governance & Business Rules
- Scheme Provider
- Financial case for the private sector

Part II: How is the tender structured

- Tender & Project Timelines
- PQ evaluation criteria
- Roll out
PART I – Project Description

“Computers are useless. They can only give you answers.”
Pablo Picasso
Part I: Project Description

1. Current System Overview

2. Project Objectives

3. Contactless AFC System

4. Concession Structure

5. Scheme Governance
Current system overview

**LRT 1**
- 17 km length
- 20 stations
- 157 mio passengers per year (2011)
- LRT 1 Cavite Ext.: adds 10 stations + 15 km

**LRT 2**
- 14 km length
- 11 stations
- 64 mio passengers per year (2011)

**DOTC/MRT 3**
- 17 km length
- 13 stations
- 159 mio passengers per year (2011)
Current Fare Collection System

Ticketing

- 2 ticket types:
  - Stored Value Ticket
  - Single Journey Ticket
- Trip pricing
  - Regular
  - Concessionary

Magnetic Tickets

- LRT stored value tickets can be used on either LRT line
- LRT and MRT stored value tickets are not interoperable
- Stored value tickets are not reloadable
- All tickets are recycled

<table>
<thead>
<tr>
<th>Current systems</th>
<th>TVM</th>
<th>AG</th>
<th>AD</th>
<th>E/S</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRT 1</td>
<td>0</td>
<td>328</td>
<td>139</td>
<td>6</td>
</tr>
<tr>
<td>LRT 2</td>
<td>82</td>
<td>229</td>
<td>27</td>
<td>4</td>
</tr>
<tr>
<td>MRT 3</td>
<td>28</td>
<td>171</td>
<td>81</td>
<td>3</td>
</tr>
</tbody>
</table>
Part I: Project Description

1. Current System Overview

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Goal of the AFCS tender

**Goal**
Upgrade the existing magnetic ticketing system to a contactless ticketing system allowing seamless travel to increase passenger convenience and decrease fare collection costs

**Main Criteria**
- The system must support both stored value media as well as single journey media
- Technology, sourcing and form-factor choices are mostly open to the private proponent:
  - Refurbish & retrofit or replace existing equipment
  - Single journey disposable ticket or token
  - Dedicated clearing house or integrated with an existing clearing house
Goal of the AFCS tender

- The system will be capable to cope with new ticketing rules in order to allow migration to a truly integrated ticketing system.
- The system is capable to expand to other transport modalities (NPR/Jeepney/Bus).
- Proponents are explicitly invited to lower cost to transport operators by e.g.:
  - Expanding the use of the card(-base) outside the public transport domain.
  - Creating a dense and low cost ticket sales (load agent) infrastructure with existing retailers.
Part I: Project Description

1. Current System Overview
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Contactless AFC System Overview

Central Clearing House

LRT1
- L3: Central Line System
- L2: Station Computer
- L1: Front-end Equipment

LRT2
- L3: Central Line System
- L2: Station Computer
- L1: Front-end Equipment

MRT3
- L3: Central Line System
- L2: Station Computer
- L1: Front-end Equipment

L0: Stored Value Smartcards and Single Ride Tickets
Contactless AFCS Architecture

Central Clearing House

Level 4

Level 3

Level 2

Level 1

Level 0

Station A

Station b
Scope: overall requirements

Design principles:
- Open system architecture
- No supplier lock in
- Scalable
- Modular

Implementation principles:
- Proven capabilities
- Make system work
- Then expand to build the business
Scope of the AFCS tender: Level 4 and 0

Level 4

Financing, installation, ownership and operation:
- Clearing and Settlement For LRT 1 (including Extension), LRT 2 and MRT 3
  - Scalable such that planned or expected Light Rail extensions and other modalities are supported (NPR/Jeepney/Bus)
  - At bidder’s convenience, the clearing and settlement of non-transport transactions

Level 0

Financing and issuance:
- Card Issuance of all contactless media and application issuance on the media, customer support
  - Smart cards and at the bidder’s convenience on other form factors such as key fobs, NFC SD cards, NFC phones
- All cards/applications issued during concession period, are owned by the bidder

Possible expansion scenario
Scope of the AFCS tender: Level 1 – Level 3

- Current LRT 1, LRT 2 and MRT 3 fare collection equipment
- The contactless media are based on ISO 14443 type A or B
- MRT3 existing gates will be renewed altogether
- LRT1/LRT2 existing gates may be refurbished and retrofitted with contactless modules to meet the performance and service levels
Scope of the AFCS tender: Level 1 – Level 3

- LRT 1 Extension AFC infrastructure is a callable option for DOTC, priced separately. However, LRT 1 Cavite Extension Proponent may select own supplier of L1-3 systems (connecting to AFCS L4 and accepting AFCS Lo).

- New light rail extensions and other transport modes may select own preferred supplier of L1-3 systems, but will be required to connect to Level 4 system.

If and when add’l public transport transactions are processed through level 4, transaction fee will be rebalanced on cost plus principle.
Transition to new system

Timeline not to scale

Level 2-4

Level 1

Level 0

DBT phase  Pilot phase  Rollout phase  Full operation & extensions

Magnetic AFCS

Contactless AFCS

Revenue operation

Full systems acceptance & L1-3 ownership transfer
Part I: Project Description

1. Current System Overview
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Concession structure overview

**The Consortium**

- **PTO1**
  - Contract counterpart for MRT Levels 1 - 3

- **PTO2**
  - Contract counterpart for LRT Levels 1 - 3

- **Scheme Provider/Authority**
  - Contract counterpart for Levels 0 & 4

- **AFCS operating company**
  - Levels 1-3
  - Level 4

- **Supplier**
## Concession Structure (2)

<table>
<thead>
<tr>
<th>Level</th>
<th>Contract type/main conditions</th>
<th>Counterpart after FSA</th>
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</thead>
<tbody>
<tr>
<td><strong>Level 4</strong></td>
<td>Type (Build) Own Operate contract or BOT</td>
<td>DOTC / SP</td>
</tr>
<tr>
<td></td>
<td>Duration FSA + 10 years</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Payment Transaction fee per transaction processed payable by PTOs</td>
<td></td>
</tr>
<tr>
<td><strong>Level 3</strong></td>
<td>Type Build or Rehabilitate, Transfer and Maintain contract</td>
<td>PTOs</td>
</tr>
<tr>
<td></td>
<td>Duration FSA + 10 years</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Payment Maintenance fee payable by PTOs</td>
<td></td>
</tr>
</tbody>
</table>

1) SP = Scheme Provider
## Concession Structure (3)

<table>
<thead>
<tr>
<th>Level</th>
<th>Contract type/main conditions</th>
<th>Counterpart after FSA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Level 2</strong></td>
<td>Type - Build or Rehabilitate, Transfer and Maintain contract</td>
<td>PTOs</td>
</tr>
<tr>
<td></td>
<td>Duration - FSA + 10 years</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Payment - Maintenance fee payable by PTOs</td>
<td></td>
</tr>
<tr>
<td><strong>Level 1</strong></td>
<td>Type - Build or Rehabilitate, Transfer and Maintain contract</td>
<td>PTOs</td>
</tr>
<tr>
<td></td>
<td>Duration - FSA + 10 years</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Payment - Maintenance fee payable by PTOs</td>
<td></td>
</tr>
<tr>
<td><strong>Level 0</strong></td>
<td>Type - Card issuer operation contract (comb. with level 4)</td>
<td>DOTC / SP</td>
</tr>
<tr>
<td></td>
<td>Duration - FSA + 10 years, exclusivity expires after FSA + 5 years</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Payment - Card issuance fee to be paid by pax</td>
<td></td>
</tr>
</tbody>
</table>
What happens after the concession period?

- **Level 1 – Level 3:**
  - The maintenance contract expires. The service operators may bid out the maintenance of the AFCS infrastructure again.

- **Level 4:**
  - The contract period of clearing and settlement of transactions in the public transport by the Proponent ends. A new concession may bid out transaction processing to another party.

- **Level 0:**
  - After the exclusivity period, the DOTC or Scheme Provider may bid out card issuance to additional issuers.
  - After expiry of the contract, the issuance of cards by the proponent stops.
Part I: Project Description

1. Current System Overview
2. Project Objectives
3. Contactless AFC System
4. Concession Structure
5. Scheme Governance
### AFCS Scheme Organization

<table>
<thead>
<tr>
<th>ISO Role</th>
<th>Manila Technical Role</th>
<th>Manila Entity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registrar</td>
<td>Registrar</td>
<td>Scheme Provider</td>
</tr>
<tr>
<td>Security Manager</td>
<td>Security Manager</td>
<td>Scheme Provider</td>
</tr>
<tr>
<td>Application Owner</td>
<td>Application Owner</td>
<td>Private Proponent</td>
</tr>
<tr>
<td>Customer Services</td>
<td>Customer Services</td>
<td>Private Proponent</td>
</tr>
<tr>
<td>Collecting &amp; Forwarding</td>
<td>Collecting &amp; Forwarding</td>
<td>Private Proponent</td>
</tr>
<tr>
<td>Service Operator</td>
<td>Service Operator</td>
<td>LRTA/MRT</td>
</tr>
<tr>
<td>Application Retailer</td>
<td>Application Retailer</td>
<td>LRTA/MRT + others</td>
</tr>
<tr>
<td>Product Owner</td>
<td>E-purse Owner</td>
<td>Private Proponent</td>
</tr>
<tr>
<td></td>
<td>Transport Product Owner</td>
<td>LRTA/MRT</td>
</tr>
<tr>
<td>Product Retailer</td>
<td>Load Agent</td>
<td>LRTA/MRT + others</td>
</tr>
<tr>
<td></td>
<td>Product Retailer</td>
<td>LRTA/MRT + others</td>
</tr>
</tbody>
</table>
Manila AFCS Businessmodel

Metro Ticketing Services

Card Issuer
- Application Owner
- Media Issuer
- E-purse Owner

Customer Service
Clearing and Settlement

LRT/MRT/etc.. (Service Providers)
- Application Retailer
- Product Owner
- Product Retailer
- Load Agent
- Service Operator

Customer

Scheme Provider
- Registrar
- Security Manager
Each identified key stakeholder is classified as a Scheme Participant. The initial group of participants to the scheme is limited to the Proponent and the Service Providers (LRT/MRT).

The Scheme Provider maintains the specifications, business rules and regulations that the Participants need to adhere to. The initial set of specs and regulations are based on the proponent’s actual system.

Each Scheme Participant has a (similar) contract with the Scheme Provider. The contract defines the governance model and decision-making procedures that parties need to adhere to.

Scheme Participants and Scheme Provider may propose changes to the specification, rules and regulations by submitting a Change Request to the Scheme Provider.

New participants need to be admitted by Scheme Provider.
“A banker is a fellow who lends you his umbrella when the sun is shining, but wants it back the minute it begins to rain.”

Mark Twain (author)
A challenging timeline......

<table>
<thead>
<tr>
<th>Phase</th>
<th>Proposed date</th>
<th>Process Step</th>
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<tbody>
<tr>
<td>Build &amp;</td>
<td>1 Sept 2013</td>
<td>Start of Contract</td>
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<tr>
<td>rehabilitate</td>
<td>Sep 2013 - 2014</td>
<td>System development</td>
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<tr>
<td></td>
<td>3\textsuperscript{rd} quarter 2014</td>
<td>Sub System Approval Levels 1 – 4</td>
</tr>
<tr>
<td></td>
<td>15 Nov 2014</td>
<td>Full Systems Approval</td>
</tr>
<tr>
<td></td>
<td>1 January 2015</td>
<td>AFCS operational</td>
</tr>
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Overall Project Organisation

Program Office

Scheme Provider

AFCS Operator

Implementation

Operations

1 Jan 2015
## Procurement Planning

<table>
<thead>
<tr>
<th>Milestone</th>
<th>Responsible</th>
<th>Target Date</th>
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<tbody>
<tr>
<td>Publication of Invitation to Pre-qualify to Bid</td>
<td>DOTC/LRTA</td>
<td>17 December</td>
</tr>
<tr>
<td>Issuance of the Instructions to Prospective Bidders</td>
<td>DOTC/LRTA</td>
<td>December 18 to February 14</td>
</tr>
<tr>
<td>Qualification Documents Submission Date</td>
<td>Bidders</td>
<td>February 14</td>
</tr>
<tr>
<td>Opening of Qualification Documents</td>
<td>DOTC/LRTA</td>
<td>February 14</td>
</tr>
<tr>
<td>Notification of the results of evaluation of the Qualification Documents</td>
<td>DOTC/LRTA</td>
<td>March 6, 2013</td>
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</table>
### Procurement Planning(2)

<table>
<thead>
<tr>
<th>Milestone</th>
<th>Responsible</th>
<th>Target Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Issuance to Instructions to Bidders, Draft Concession Agreement &amp; Draft MPSS</td>
<td>DOTC/LRTA</td>
<td>March 11, 2013</td>
</tr>
<tr>
<td>Pre-Bid Conference(s)</td>
<td>DOTC/LRTA</td>
<td>March 25, 2013</td>
</tr>
<tr>
<td>Deadline for Bidder’s Comments to the Instructions to Bidders, Draft Concession Agreement &amp; Draft MPSS</td>
<td>Bidders</td>
<td>May 16, 2013</td>
</tr>
<tr>
<td>Issuance of Final BOT Agreement and MPSS</td>
<td>DOTC/LRTA</td>
<td>May 23, 2013</td>
</tr>
<tr>
<td>Bid Proposals Submission Date</td>
<td>Bidders</td>
<td>June 14, 2013</td>
</tr>
<tr>
<td>Milestone</td>
<td>Responsible</td>
<td>Target Date</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
<td>----------------</td>
<td>-------------</td>
</tr>
<tr>
<td>Opening of Technical Proposal</td>
<td>DOTC/LRTA</td>
<td>June 17</td>
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<tr>
<td>Notification of the results of evaluation of the Tech Proposals</td>
<td>DOTC/LRTA</td>
<td>July 5</td>
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<tr>
<td>Opening of Financial Proposal</td>
<td>DOTC/LRTA</td>
<td>July 5</td>
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<tr>
<td>Notification of the results of the evaluation of the Fin Proposals</td>
<td>DOTC/LRTA</td>
<td>July 19</td>
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<tr>
<td>Issuance of Notice of Award</td>
<td>DOTC/LRTA</td>
<td>July 30</td>
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<tr>
<td>Subm. Post-Award Requirements</td>
<td>Pref Bidder</td>
<td>August 19</td>
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<tr>
<td>Issuance of Notice of complete compliance with all Requirements</td>
<td>DOTC/LRTA</td>
<td>August 23</td>
</tr>
<tr>
<td>Signing Date of Agreement</td>
<td>DOTC, LRTA, &amp; Pref Bidder</td>
<td>August 28</td>
</tr>
</tbody>
</table>
Aimed at getting the right number of the right bidders/consortia……
The Prospective Bidder must be:

- A **partnership or corporation** registered with the Philippine Securities and Exchange Commission (“SEC”) or in case of a foreign entity, the appropriate government agency equivalent to the SEC in the foreign country

- A **Consortium** whose members must be partnerships or corporations registered with the SEC or in case of a foreign entity, the appropriate government agency equivalent to the SEC in the foreign country

- Plus **Conflict of Interest** Clauses

- Plus **Lock up** criteria
The **Prospective Bidder must have proof of experience:**

- **In dealing with real people** – so a business to consumer experience requirement (Prospective bidder/cons. Member)

- **In AFCS system operations** – so a requirement on experience in level 1-3 operations (also through subcontractor)

- **In clearing & settlement** of large volumes of transactions – hence a requirement on a minimum number of transactions (Prospective bidder/cons. Member)

- **In end-to-end integration of AFCS components for different operators** – hence a requirement on the # of projects the prospective bidder has to have had **system integration responsibility for.** (also through subcontractor)
The Prospective Bidder must have availability of:

- Team of experienced AFCS managers – and describe where and when it is going to use them.
  - Program manager
  - Lead architect
  - Delivery managers (levels 1-4)
  - Operations manager / Maintenance manager

The Prospective Bidder must submit a Project Management Plan:

- Project Implementation Plan – re how the afcs operator is going to implement the project
- Authority Risk Management Plan – re how the operator is going to manage the authority’s residual risks
- Project Development Plan – re further development of the commercial potential of the AFCS system.
The Prospective Bidder must show proof of:

- Minimum net worth
- Support letter from their bank