Ease of integration and Mastercard TIP (Terminal Integration Process) Testing of 3rd party Mastercard PayPass / Visa PayWave certified card reader with a typical transport on-board computer or static card terminal host device and an update on the SurePaw / Santaco Taxi EMS project
Agenda

• Case Study - Integration of Mastercard PayPass certified reader into SurePaw’s on-board MDT solution

• Update on SurePaw Santaco EMS Taxi Project
Terminal Integration process

• Chose the OTI Saturn 6000 Contactless terminal (others available, including Vivotech)
  – Mastercard PayPass / Visa PayWave Level 1 and 2 certified by OTI.
  – Therefore it already contains the full set of APDU’s necessary to communicate with PayPass / PayWave cards
The Taxi Passenger Terminal
The Taxi Driver Terminal
Terminal Integration process (Cont’d)

• OTI Provide you with all the API’s necessary to communicate with the reader from your own host terminal.

• Simple Binary command response strings between reader and host terminal
Terminal Integration process (Cont’d)

• 1\textsuperscript{st} Command – Initialise PayPass
• 2\textsuperscript{nd} command eg debit card:
  – “Poll EMV (Amount[ ],[Currency Units); Transaction Type[ ]; Date [ ])”
• Reader Response: “Transaction Success [ ]; Date [ ]; Various transaction verification data [ ]; Transaction Counter[ ]; Application Cryptogram (Authenticates Transaction[ ])”
Terminal Integration process (Cont’d)

• SurePaw’s experience:
  – Development – 5 Days
  – In-house testing – 4 weeks
Terminal Integration process (Cont’d)

• Mastercard TIP Testing
  – Involves Bank and SurePaw
  – SurePaw Pre-requisites:
    • Terminal Level 1 and 2 certification
    • TQM (Terminal Quality Management Process)
Terminal Integration process (Cont’d)

• Bank (Capitec) – completes Acquirer Implementation Conformance Statement.

• SurePaw obtains:
  – ETEC Test Cards
  – SmartSpy test tool
  – Mastercard test scripts
Terminal Integration process (Cont’d)

- ETEC tests cards come in 2 subsets:
  - ETEC Subset ‘one’ (subset “essential”) cards are used:
    - To ensure that the terminal is working properly in the acquirer environment,
    - To test MasterCard brand acceptance and compliance.
    - To test chip data in clearing presentment messages (Clearing subset 1 add-on is required)
  - ETEC Field Interoperability subset cards are designed to reproduce specific interoperability issues. They allow the acquirer to ensure that their terminal will be able to handle such issues correctly.
The SmartSpy tool is used for the specific purpose of logging the dialog between the card and the terminal during the test session. This tool is inserted between the ETEC test card and the terminal card interface at the time of testing.
Terminal Integration process (Cont’d)

• Run Tests according to Mastercard Test scripts
• Send results to Mastercard
• Mastercard sign-off!
Terminal Integration process (Cont’d)

- Mastercard / Capitec / SurePaw

TIP Testing:
  - Have scheduled approx 8 weeks in total.

  • 4 weeks allocated to actual testing (running scripts) but can be done in less time.
The Santaco Taxi EMS Project

• Project to rollout SurePaw’s EMS (Electronic Management System) across approx 75,000 minibus taxi’s under the Santaco umbrella

• Phase 1 – all JPM Association Taxi’s on Johannesburg (Noord Street Rank) – Pretoria (Bosman St Rank) Route
The Santaco Taxi EMS Project (Cont’d)

- 180 Taxi’s equipped with SurePaw’s MDT and OTI reader
- Cashier facilities equipped at ranks at both ends of route.
- No cash accepted on vehicles
- Commence with Mifare cards and migrate to PayPass
- 10,000 commuters per weekday, 14,000 on Saturday’s
The Santaco Taxi EMS Project (Cont’d)

• **Live Date – 1\textsuperscript{st} April 2008**
The Taxi Passenger Terminal
The Taxi Driver Terminal
The Pretoria Taxi Rank Cashier Facility
The Pretoria Taxi Rank
Cashier Facility
Questions?
Thank you!