



SINCE 1998
SYSTEMS &
EQUIPMENT FOR
AFCS





Algeria



Kazakhstan



Canada



Nigeria



Egypt



Poland



France



Portugal



Greece



Romania



Israel



United States



Italy



Turkey

In its history, AEP has created in the world tens of Automated Fare Collection Systems and installed almost 60,000 devices



ATM/TRENORD MILAN



ALGERIA RAILWAYS



ASTANA, KAZAKSTAN



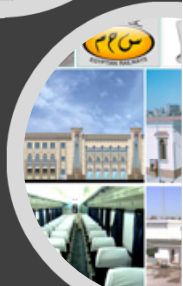
SILESIA REGION POLAND



SOME AEP MOST IMPORTANT SYSTEMS



BIP TURIN



EGYPT RAILWAYS

AEP EMV OPEN PAYMENT

- AEP believes that EMV Open Payment is one of the most appealing innovation in the transit systems
- AEP is working on this project since 2015 and is proud to be one of the most advanced role player in this area



NO REGISTRATION
NO DATA ENTRY



NO QUEUES



NO RENEWAL DATE
TO REMEMBER



NO WASTE
OF TIME



NO COMPLEX
RULES TO UNDERSTAND



NO COMPLEX
RULES TO REMEMBER



OPEN PAYMENT WITH EMV BANK CARDS & BEST FARE

- Designed according Transport for London model
- EMV, PCI-PTS etc. certified equipment
- Can operate in fixed networks (metro, railway) **as well as on buses** and tramways
Flexible tariff range in post payment ("best fare")
- **Just one terminal** for standard contactless cards, EMV cards & optical validation (QR-code)
- Complete solution: equipment-side and center-side (Payment Gateway)



etpay

AEP PAYMENT PLATFORM
MAKES COMPLETE THE EMV SYSTEMS



AEP
Ticketing solutions

- Put very quickly your EMV system into operation, with all the required certifications
- Company- and Traveler-portal included for complete monitoring

ONGOING AEP OPEN PAYMENT SYSTEMS

- Treviso-Airport line ***
- Torino-Caselle Airport**
- Grosseto**
- Firenze-Siena-San Gimignano line**
- Varese**
- Alessandria**
- Vicenza*
- Angoulême*, France
- Lens*, France
- Chartres**, France
- Chalon en Champagne*
- Epinal*, France
- Galati**, Romania

* equipment only
** next start-up
*** in operation

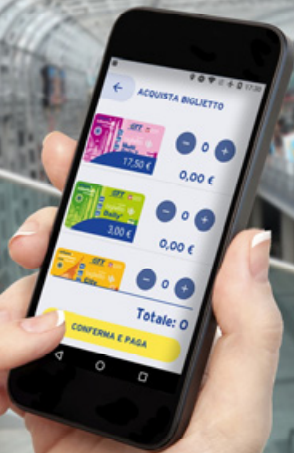


et-mobile

ABT SOLUTIONS AND QR-CODE VALIDATION

- QR-code based tickets, optically convalidable
- Can use plain-paper tickets
- Can use smartphones
- Can be validated also in NFC mode
- Ideally suited for low value, short period tickets (i.e. urban tickets)
- Operates with or without on-line connection (short period disruption)
- Uses not-negligible communication bandwidth, especially in large systems
- Higher value fare documents pose authentication issues that could require again a smart card ☺





AEP VTS

Innovative solution based on mixed
ABT-CBT-HCE-NFC technologies

Big bang in Turin, next Monday
October, 1.st



QR-CODE FREE ENTRANCE



ABT SYSTEMS
OR TOYS?

- ABT systems are often confused with toy-level, QR-code or SMS applications
- If not well designed, they can be a security issue in a well-conceived systems
- We are speaking thus only of professional-grade solutions

CONCLUSIONS

Open loop EMV payment is solid reality today; if not a killer applications, it ensures large success by the public and many advantages for the transport operators

For ABT systems, AEP completely share CNA conclusions*; they can be a good complement of an AFCS system but they will not be shortly a full replacement for traditional smart cards, HCE emulated cards or other

* White paper Account Based Ticketing with Calypso