

# 2<sup>nd</sup> Smart Ticketing & Digital Services Forum

Doha, 2017

Qatar – Doha  
W Hotel

April 26<sup>th</sup>, 2017





As chairman of Calypso, I am delighted to invite you to discover this special edition of the Calypso Letter dedicated to Ticketing and Digital services applied to transport in the MENA region, where Public Transport is continuously increasing its market share of the whole mobility offer.

Seamless travel, ease of access to the City, passenger information, guidance, smart and flexible ticketing are key points to ensure a real attractiveness of public transport. And thus they are leading a sustainable approach of mobility.

More and more these new digital services are both integrating transport in the City thanks to the deployment of urban multiapplication solutions (banking, parking, leisure, event management, etc.) and linking cities between them thanks to interoperable schemes.

But the possibilities available are so numerous and the technologies are evolving so quickly that it raises an increasing number of questions when setting up a public transport system

and regarding the ecosystem, the means of payment, the role of ticketing, the tariff policy, the choice of partners, etc.

That is why CNA wishes to carry on its involvement in Smart Ticketing and Digital Services development in the region by participating in the 2016 UITP MENA Congress & Exhibition.

This event is of particular interest in the MENA region where so many major transport projects are underway, their success vis-à-vis the travelers also depending on the relevance and the quality of digital services for travelers.

I hope you will enjoy reading this Calypso Special Edition.

Philippe Vappereau  
Calypso Networks Association  
Chairman





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# A NEW PARADIGM FOR TICKETING

Building a ticketing system for a public transport network has been for many years a quite complex, but usual problem: the goal was to set up a way to manage incomes from customers; the key points were to build efficient tariff laws, to optimize sizing of equipment (number of sale and validation equipment), to choose relevant technology between paper, magnetic and more recently contactless.

Until recently, everything was done in a closed environment and dealt with between very few actors: often only the transport operator and its manufacturer. The designed interfaces were not taking in account other transport ticketing systems or other sectors of activity, the interoperability remaining limited to a closed area, where the rules are mainly defined by the manufacturer.

Even the introduction of the contactless technology, at the beginning, did not change this approach of ticketing. The technology had changed, but the concepts remained similar, the ticketing systems implemented being limited to a specific area. Contactless ticketing was only seen as a way to reduce maintenance costs and to offer a modern image to public transport users; it also allowed to impose systematic validation

in buses thanks to the speed of transaction.

Today building a ticketing system raises many more questions, with fundamental choices to make. It is quite funny to see that one of the most recent solutions, the Open Payment EMV solution, is in fact nothing more than the return of the fare box with coins; or quite, because on-line communications of course offer many more possibilities than a simple coin thrown in a box!

But these questions are not led by technological issues; in all cases, contactless ticketing has now become the norm. For a transport authority, the questions are dealing with other key stakes, such as:

- Do I need to propose customers a simple mean of payment, or do I consider that ticketing has a role to play in social integration and access for all to the city; meaning

in this case that tariff laws have to be defined in this objective?

- Do I consider ticketing as a simple mean of payment or as a way to improve the modal balance and the attractiveness of public transport, thus being a digital service offered to the customer?

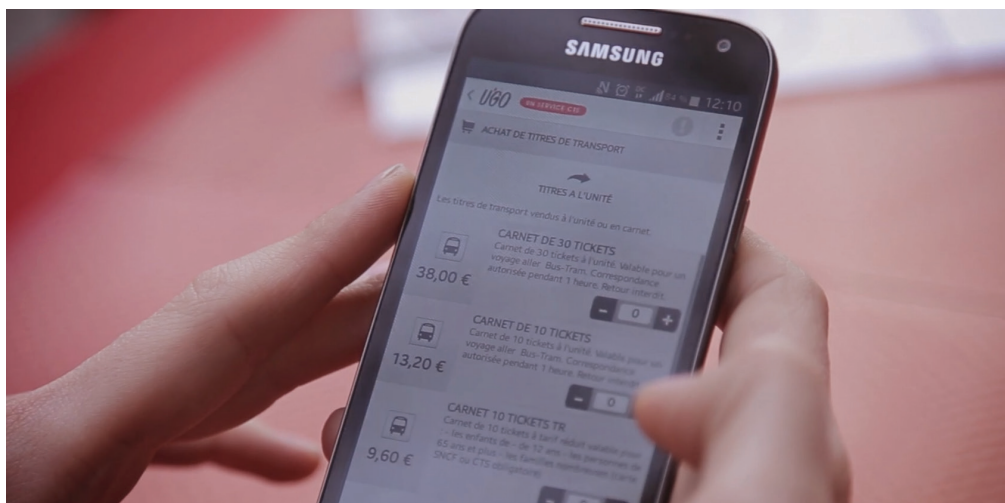
- Do I remain in the concept of a closed ticketing system, limited to a specific area and to specific partners? Or do I want to open it to move toward an interoperable scheme through a global approach?

- Do I consider ticketing as an access key to a Customer Relationship Management which remains under my responsibility,

or am I ready to leave others benefit from this knowledge of customers?

- What is the state-of-the-art, in my environment, of the relationship between actors of transport, banking and mobile phone sectors?

- What kind of industrial policy do I want to set up? Do I manage myself the integration of the different components in order to remain free and not depend on a proprietary solution of a sole manufacturer; or do I prefer to entrust everything key-in-hand to a manufacturer?



Of course this list of questions is not an exhaustive one, but all of them reflect well the new stakes that have to be taken into consideration when building a ticketing system. The answers depend on cultural, social, institutional and political aspects.. And to make things even more complex, these answers depend on the categories of users, from the occasional ones to the regular ones. It has also to be remembered that some functional and technical choices are allowing solutions and preventing others. This is very difficult to perceive for those who are not true specialists on these matters.

Thus, the ambition of events such as the 2016 UITP Congress & Exhibition in MENA, a region of the world where so many transport infrastructures are now to be achieved, is to contribute to a better understanding of the success factors for public transport projects in the region. As chairman of the Calypso Networks Association, which has constantly been building solutions to face these challenges, I am sure that this event will answer many important questions raised in the field of ticketing and services.



# PROGRAM April 26<sup>th</sup>, 2017

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⌚ **08:00- 08:45**

Welcoming Breakfast

Offered by Transdev

⌚ **08:45 - 09:00**

Opening Plenary to the 2nd edition Qatar Smart Ticketing & Digital Services Forum

⌚ **09:00- 09:45**

Intermodality and Interoperability, from concept to reality.

Animated by Erik Baele, MOBIB representative, Belgium

**Intermodality in a context of "on water" public transport in Venice**

Gianluca Cuzzolin, Director operations, ACTV, Venice, Italy

**Digital & Smart – With the Passenger at Heart**

Patrique CAMPAL LINDAHL, Deputy Director - Transdev

⌚ **09:45- 10:30**

Mobile ticketing for a mobile world

Animated by Ralph Gambetta

Louis Brosse, Wizway, France

Yola Bertrand - Spirtech

⌚ **10:30 - 10:45**

Pause

⌚ **10:45 - 11:15**

State-of-the-art of the different ticketing approaches: Card centric, System Centric

Francis Sykes – Ixxi, RATP Group

⌚ **11:15 - 11:45**

Leading ticketing to open source solutions: a dream or a reality: the Calypso challenge

Valentina Zajackowski, CNA: open source in ticketing field is a natural evolution

Pierre Terrée, Ticketing expert: a universal SDK offers easy access to developers

⌚ **11:45 – 12:30**

Building a ticketing system from scratch: opportunities and issues

Xavier Berger, ITS Manager, Deputy Project Director, RATP Dev Riyadh

⌚ **12:30 – 13:30**

Lunch break

Offered by Ixxi

⌚ **13:30 – 14:15**

Certification and security : a key issue for a successful ticketing system

Ludovic Verecque, Paycert

Nicolas Generali, French railways SNCF, Paris

⌚ **14:15 – 15:15**

Panel discussion: Is there a future for contactless object in a mobile world?

Animated by Valentina Zajackowski

Patrique CAMPAL LINDAHL, Deputy Director - Transdev

Louis Brosse, Wizway, France

⌚ **15:15 – 15:30**

Pause

⌚ **15:30 – 16:00**

Ticketing and multiservice in the City enhance public transport attractiveness?

Animated by Philippe Vappereau

Philippe Rousselet – ADCET chairman: CMA, a standard for multiservice applications

⌚ **16:00 – 16:15**

Closing Session

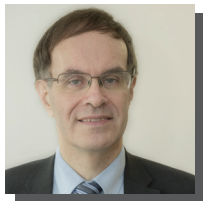
Chairman Calypso Networks Association: Philippe Vappereau

⌚ **16:15 – 17:30**

Time for networking

# SPEAKERS

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**Philippe Vappereau**

Chairman, Calypso Networks Association



**Ludovic Verecque**

General Manager, Paycert



**Yola Bertrand**

Deputy CEO, Spirtech



**Philippe Rousselet**

General Secretary, ADCET



**Patrique Campal Lindahl**

Deputy Director, Group Commercial Department, Transdev



**Ralph Gambetta**

Vice-Chair, Smart Ticketing Alliance



**Valentina Zajackowski**

Marketing Manager, Calypso Networks Association

**Nicolas Generali**  
Calypso Technical Manager, SNCF



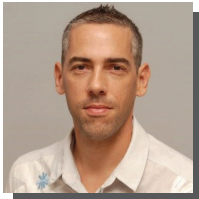
**Erik Baele**  
STIB



**Francis Sykes**  
ABT Expertise, Ixxi-RATP Group



**Pierre Terrée**  
Technical Expert, Chairman, Calypso Networks Association



**Louis Brosse**  
CEO, Wizway Solutions - Mobile Ticketing for Transport & Smart Cities



**Gianluca Cuzzolin**  
Director at Actv S.p.A.

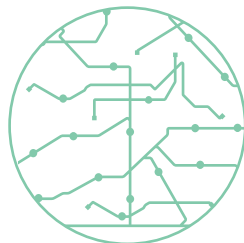


**Xavier BERGER**  
ITS Manager at RATP Dev KSA



# MENA REGION OVERVIEW

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**4,000 km**  
of rail lines

## DOHA & QATAR

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**1.9 million**  
inhabitants



Host of the  
**2022 FIFA**  
**World Cup**



**2200** buses



**1800** taxis



**3** metro lines  
**1** long distance Rail  
**28** kilometers Lusail Tram



**380** million  
inhabitants



In the next **5** years, major **public transport and smart ticketing projects** of at least **\$90 billion** will be deployed

## DUBAI



**500** million  
travels per year



Organizer of the  
**2020 Expo**



**8 339**  
buses trips  
per day



**100** million  
trips per year



**Metrorail** : longest  
automated metro network  
in the world, **76.6 km**

# INNOVATION AT THE HEART OF RIYADH

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## **A global public transport strategy for Riyadh to deal with new challenges**

Riyadh, administrative capital and largest city of Saudi Arabia, is divided into 15 municipal districts. This dynamic metropolis is a hub of travel, trade, finance and business and is going to face critical issues. "Riyadh population is booming and will expand from 4.5 Million to be 8.3 million residents by 2030. Currently, 90 % of trips are today made by private car. Public Transport will reduce the public traffic congestion, reduce door-to-door

travel time, and also improve the citizen life offering a new way to travel. Riyadh is also concerned by sustainable development".

As a result, numerous new lines of transport are currently under construction. "The initial capacity of the network is 1.1 million passengers per day with an ultimate capacity of 3.6 million passengers per day. When the project will be ended, the city will be equipped with a 176 km long metro line with 6 lines and 85 stations. A bus network will cover all the city of Riyadh and there will be 80 km of BRT with dedicated lines. The Metro and Bus network will revolutionize the way people of Riyadh live. "

In order to manage such a network, which will also include a fleet of almost 1000 buses, Indra will be the company in charge of implementing the entire ticketing and access control technology in the new public transportation system. This is the biggest ticketing contract in the world and it epitomizes the government's wish for a state-of-the-art Public Transport system.

## **Innovation, a key for promoting Public Transport**

"The Metro has been designed with the latest proven technologies, and concerning automated fare collections and ticketing, Riyadh applied sentence of having a "world class public transport system" leading us to have all the modes of electronic payment available: NFC and EMV systems, E-wallet, mobile ticketing and smart cards, always with the most intuitive and ergonomic design."

Furthermore, a single contactless card will be valid across all metro and bus services. "With contactless technology, users will be able to access the entire public transportation system using only one card. These smart technologies help to increase the infrastructures environmental and financial efficiency and sustainability; they also improve service, quality and increase security levels". (Indra press release, Jan 2015)

"A lot of communication is done to engage citizen about the benefits of using public transport. We are rolling out an educational and awareness

program across the city including construction site visits and school and university program running, we will open a physical center in Riyadh with mockups samples for the equipment that will be deployed, in addition to the traditional television and press advertisement."



**Abdullah Almotawa**  
Arriyadh Development  
Authority

"ADA is a government Authority established in 1983, with primary focus on implementing all the strategies, planning and regulation of the city of Riyadh, including the execution of the King Abdulaziz Public Transport Project."

# DIGITAL IN THE DAILY LIFE IN MOROCCO

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Morocco launched major digital projects that affect quite all sectors of activity, like for example citizens and administration relationship, as well as transport ticketing, governance, identity cards, biometric passport, vehicle registration cards, etc.

Casablanca as a very central city & economic capital in Morocco, is today equipped with a lot of digital services almost everywhere. Today the use of smart cards for bank is completely usual. This scheme of transaction based on smart cards is now extended to other sectors, particularly for the relationship between the citizen and the administration.

Systems to manage the dematerialized flows of data have been set up: information is immediate and secure, and the citizen benefits from these possibilities of these cards.

These are numerous because they are smart cards, with high data capacity, based on standards such as the Javacard standard; which is open to accept other applications. Today more

than 10 million cards have been issued.

“Thanks to the smart card, we try to promote intermodality and help people change their traveling habits. Or at least, we try to get there by giving them the tools, the means to do it.”

## **Promoting intermodality and a sustainable city thanks to smart cards**

Vehicle registration cards are multiservice ones: they can be used for technical control of cars or for public transport ticketing, thanks to a Calypso application. There is a lot of traffic congestion in Casablanca, and the City wants to promote the use of public transport and particularly the tramway; so some car parks are implemented very close to tram stations. In these big car parks, you can come to park, in periphery of Casablanca and go to the city center by the tram. The idea is to use a single smart card, the vehicle registration one, in order to pay both the car parking

and the tram ticket. It is important to add a loyalty scheme to better encourage people to use public transport; it allows you to get a "carbon credit" bonus for leaving your car, saving up kilometers of car, and the bonus can be used in a cinema or a theater for example.

"For transport ticketing, M2M chose Calypso among others because we were convinced that it would be the standard of tomorrow, like EMV is the standard for payment. And it is confirmed today."



**Redouan BAYED**  
CEO - M2M Group

"In Morocco, the citizen has driving license and vehicle registration cards in an electronic format instead of the usual paper. It is part of the decision to digitalize completely the world of transport in Morocco."



Secure e-transactions.  
Anytime. Anywhere.

M2M began its activities about 25 years ago to promote the use of smart cards, first in financial sector. The company is now present in this sector of activity not only in Morocco but also in 50 other countries, where there are electronic transactions, digital and generally speaking dematerialized data flow management: in e-gov sector, in identity, in urban or interurban transport, in the enterprise, with software offers that we propose to all these sectors. M2M intervenes at all levels, by providing solutions, by integrating them in diversified ecosystems.

# ABOUT

## CALYPSO NETWORKS ASSOCIATION

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Calypso Networks Association gathers operators, authorities, suppliers and service providers implementing Calypso, an open specification developed through an EU project, assuring a high security level for contactless transactions and providing technical interoperability between networks in a multi-service and multi-supplier ecosystem.

More than 125 smart ticketing schemes worldwide have adopted Calypso technology such as Lisbon, Paris, Brussels, Mexico City, Montreal, Casablanca, Riga or Milan. Calypso even goes beyond public transport and offers multiservice applications in different fields such as culture, leisure, access control and car sharing.

## SERVICES



Implementation assistance  
of Calypso in a ticketing system.



Delivery of Triangle the  
solution for a transnational  
interoperability.



Applet for mobile ticketing's  
delivery and assistance  
to its implementation.



Portable objects certification  
Terminal registration  
Triangle conformity.



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## Calypso

Networks Association



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