

# Activity report **2024**

Calypso  
Networks Association



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# Introduction

## from the Chairman



## Dear Calypso friends and partners,

After celebrating its 20th anniversary the previous year, CNA was looking forward to 2024 as the start of a new cycle, driven by spectacular growth in Calypso card sales worldwide. The year promised much, including a decisive step forward in the integration of Calypso into NFC mobile phones. This was ultimately delivered through the Apple Wallet project in Paris, against the backdrop of the 2024 Olympic Games.

2024 certainly lived up to its promise, with an explosion in activations on NFC mobiles, record sales of Calypso cards, and the emergence of Light and Basic as future-proofed, valuable solutions for markets worldwide.

CNA confirmed its dynamism, its excellent financial health and its ability to invest in the future.

This future must take shape in a world of ticketing and transport where trends such as the migration to centralised systems, the predominance of smartphones, and the expansion of Open Payment are clear to all. More than ever, CNA reaffirms its vision of open standards, global collaboration and a diversified approach to user needs.

Calypso has a bright future, and the next few years promise to be equally exciting, collaborative and creative.

**Gianluca Cuzzolin**  
Chairman of  
Calypso Networks Association

# Mission

## and vision

### Delivering on our mission and collaborating on our vision

For more than 20 years, major ticketing players from around the world have joined forces within the Calypso community to build the industry standards and tools needed to develop interoperable, reliable and sustainable systems for mobility.

Public transport authorities and operators, manufacturers of smart cards and contactless terminals, suppliers and integrators of ticketing software solutions, consultancies... Over the years, our members have supported a vision of contactless ticketing based on global standards for NFC technology and on specifications that are open and accessible to the industry.

More than ever, public transport services need to secure their investments. This means controlling the costs of their ticketing systems over the long term and protecting their revenues.

The Calypso standard has been designed with this in mind: it is an open standard, fostering competitive and innovative markets for systems that can be upgraded and maintained with complete control; it favours secure solutions, guaranteeing an effective fight against technological fraud.

A public service must be accessible to all, and agile enough to adapt to changing social, demographic

and technical realities. By enabling the design of multi-media (card or mobile) and multi-architecture (centralised or not) systems, the Calypso specifications meet the varied needs of different networks and territories.

Public authorities all face challenges of governance and sovereignty when managing public mobility services. In part, overcoming these complexities depends on mastery of ticketing systems and knowledge of the market: this is the aim of Calypso Networks Association (CNA). As a not-for-profit association, CNA has developed, with privileged access for its members, a range of tools and services aimed at facilitating the design of a ticketing strategy and its technical implementation.

# Human

## and collaborative values

### Living collaborative values every day

It's important to remember: CNA is not a commercial company, and it offers a unique model of collaboration within the contactless ticketing world.

Calypso specifications emerge from the collaborative work of technical committees, to which all members are invited to contribute their expertise. Calypso Networks Association governs the standards and is managed by an elected Board of Directors and run by colleges of members.

CNA regularly brings together its members and users at dedicated events, facilitating bilateral or multilateral exchanges between parties, in the interests of enhancing their respective projects. This is part of CNA's commitment to maintaining a thriving community of contactless ticketing players, centred around the values of cooperation and openness, efficiency, excellence and innovation.

# 2024 highlights

## and in numbers

### Achievements and highlights

In 2024, CNA achieved a European and world first by enabling the hosting of a native transport ticket within the Apple Wallet. The result of dedicated work and close collaboration, integrating the Calypso applet into the Apple mobile ecosystem enabled Île-de-France Mobilités to offer Navigo tickets that can be purchased and hosted on an iPhone. In doing so, Paris became the first city in the world to enable a native transport ticket (rather than a stored value) in the Apple Wallet. This offer combines the excellent user experience that users expect from Apple, with the robustness of Calypso in a mobile environment. This unique service is now ready to be rolled out to other networks. It is also available within the Samsung Wallet.

Driven by this exceptional dynamism, in a year in which the French capital hosted the 2024 Olympic Games and in which newer networks like Mexico City grew extensively, the production of Calypso cards and the number of mobile activations of Calypso solutions reached a new high. In particular, the utility of Calypso Basic as a secure, standardised solution for contactless tickets that can be reloaded (including via mobile) has now been proven in the field, at scale.

Finally, in response to the needs of its members, CNA also launched a Technical Committee on the standardisation of ABT systems, building on studies initiated in 2020. The work here focuses on operational requirements in terms of interface specifications, tokenisation and interoperability.



114

Number of members

11

New members

6

Active Technical Committees



1,5m+

Calypso HCE mobile ticketing apps (+200%)

5,7 m+ (x6,5)

Activated mobile solutions



30

Countries with Calypso deployment



40m+

Estimated daily journeys delivered by Calypso



57

Certified products



36

CNA approved cards



97m+ (+85%)

Travel cards shipped

48,8m

Calypso Prime cards (+5%)

44,3m

Calypso Light cards (x9)

4,3m

Calypso Basic (x4)

# Technical expertise

## 2024 innovations and achievements

### Calypso Prime applet for Java cards and mobiles

Version 2.0 of the Calypso Prime applet - developed by CNA and deployed for the past ten years in contactless cards and NFC mobiles - was released in September 2024. It delivers support for all Calypso Prime features, including Prime Extended, with encryption of exchanged data, and Prime PKI for asymmetric cryptography. Version 2.0 also takes into account all the evolutions and corrections defined by the Calypso Prime card specification revision 3.3 edition 2, and is compatible with the latest generations of Java Card platforms.

The Calypso Prime applet can now be loaded in an Apple eSE (embedded Secure Element), as was already the case in a Samsung eSE. Knowing that Calypso HCE solutions are already deployed on Android, this means that on a technical level there is now a Calypso electronic ticketing solution for any type of NFC mobile phone.

### Open SAM

In 2024, the OpenSAM Technical Committee continued its work specifying the new generation of Calypso security modules. It advanced the functional specifications for Phase 1, releasing drafts for Card Transaction and Initialization and Management. A draft of the functional certification scheme has also been released.

CNA further announced the development of an Applet version of the OpenSAM that will be available for OpenSAM licensees.

### ABT (Account-Based Ticketing)

2024 saw the relaunch of the ABT Technical Committee, whose mission is to:

- **Clarify and amend** existing technical documents (CNA and industry wide)
- **Provide** more technical requirements and more structured criteria for ticketing tenders
- **Confirm** the relevance of Calypso technology for ABT implementation
- **Align** stakeholders on common standards.

CNA progressed three workstreams – ‘Business Needs & Use Cases’, ‘Technical Requirements’ and ‘Security’ – and drafts have been released for each workstream for review by the TC.

### Eclipse Keyple

Eclipse Keyple is an open-source SDK (software development kit) that provides reference libraries to facilitate the implementation of Calypso processing in a ticketing terminal. It makes the software hardware-independent and provides high-level functions to process Calypso transactions.

In 2024, CNA contributed significantly to the development of the security extension to manage Calypso Prime PKI (for Calypso ticketing based on asymmetrical cryptography). The new library enables the configuration of any trust chain specific to a ticketing operator.

Furthermore, a first prototype of a “light” client (no ticketing intelligence, no dependence on Keyple libraries) for a Keyple distributed ticketing server was also developed. This solution uses a generic code compatible with both iOS and Android to interface any NFC mobile with a ticketing server, making it technically possible for a universal, NFC top-up/reloading mobile application.

Finally, Keyple has also been integrated into Calypso Basic SAM and card personalisation tools to provide further support for secure, cost-efficient paper tickets.

### Certification

Certification guarantees Calypso users that card and terminal products comply with the latest specifications, which is the basis for trust, technical reliability and for interoperability. This is why CNA continually works to maintain key processes in this area.

The Calypso Test Suite for Prime was updated and version 3.2.0 was released, enabling full coverage of the Calypso Prime specification revision 3.3 Edition 2.

Seven card products obtained Calypso functional certification in 2024 (two native Calypso Prime PKI and five using applets - Java cards or mobile eSE). Concerning RF (radio frequency) certification, Paycert and CNA continued their cooperation on the STA Certification Working Group (12 card certificates and five for terminals were issued in 2024).

Finally, four card products combining the three required certificates (RF, Common Criteria and Calypso functional) were added to the list of CNA Approved cards in 2024.



# People at the heart of our projects

## Administrative structure and governance

*In January 2024, Yann Chermat became the new Chief Operations Officer of the association, taking over the responsibilities from the retiring General Manager, Philippe Vappereau.*

*Philippe Guillaumin, Technical Manager on the permanent team, stepped back from this position in 2024 and his role has now been merged with that of COO. Philippe continues to support the technical team as a CNA Expert, ensuring business continuity and a high-quality transition on key projects.*

*CNA would once again like to take this opportunity to thank these two long-term contributors for the valuable contributions and dedication they have shown the association and its membership.*

### The 2024 General Meeting

CNA held its 2024 General Assembly on 13 June in Paris, France, in a hybrid format. The General Assembly approved several administrative developments:

in August, our vice chair Sonia Alegre from TML left the company, creating a vacancy on the Board of Directors. A call for candidates was issued and two applications were submitted: one from CTS, represented by Alain Caffart, and the other from TML, represented by Alexandre Domingues. As the number of vice-presidents is not limited by the association's articles of association/by-laws, the Board of Directors agreed that appointing both candidates as vice-presidents would bring significant value to the association and its members.

# Steering Committee

*As of 31 December 2024, the CNA Steering Committee is composed of a Chairman, four Vice-Chairs, a General Secretary and a Treasurer. The next election for these positions will be June 2026 in a vote by members of the Board of Directors.*



CHAIRMAN  
ACTV - Venice, Italy  
represented by Gianluca Cuzzolin



GENERAL SECRETARY  
Landkreis Konstanz, Germany  
represented by Zeno Danner



TREASURER  
Eric Baele



VICE CHAIRMAN  
Alexandre Domingues  
TML - Lisbon, Portugal



VICE CHAIRMAN  
Thierno Aw  
CETUD - Dakar, Senegal



VICE CHAIRMAN  
Mario Pedro  
ENBI - Angola



VICE CHAIRMAN  
Alain Caffart  
CTS - Strasbourg, France

# Board of Directors

CNA is managed by a Board of Directors appointed by the General Assembly every three years. The next election will be held at the General Assembly 2026. There are currently 19 board members, represented by 20 officers.



ACTV - Venice  
Represented by  
Gianluca Cuzzolin (Chairman)



ST - Torino  
Represented by  
Massimo Cocozza



ASSTRA - Italy  
Represented by  
Serena Lancione



ATM - Milano  
Represented by  
Paolo Fiorino



BMC - Belgium  
Represented by  
Jim Van den Rijse



CETUD - Senegal  
Represented by  
Thierno Aw



CARTES BANCAIRES - France  
Represented by  
Ludovic Verecque



CTS - France  
Represented by  
Alain Caffart



ENBI - Angola  
Represented by  
Mario Pedro



ÎLE-DE-FRANCE MOBILITES - France  
Represented by  
Laurent Probst



INFINEON  
Represented by  
Björn Scharfen



INTERPARKING  
Represented by  
Roland Cracco



LANDKREIS KONSTANZ  
Represented by  
Zeno Danner



RATP - France  
Represented by  
Agnès Coughard and Yann Poirier



SEMOVI - Mexico  
Represented by  
Andres Lajous



SNCF - France  
Represented by  
by Joël Eppe



STIB - Belgium  
Represented by  
Jean-Luc Van Ginder Deuren



TML - Lisbon  
Represented by  
Alexandre Domingues



UNICOCAMPANIA - Campanie region  
Represented by  
Guido Cangiano



# Permanent Team

CNA is led by a world-class team of industry experts with extensive knowledge and experience across the transport and mobility sector.  
The team operates from Paris, Brussels, Lisbon, Konstanz and the Island of la Réunion to support CNA and its members.



**Yann Chermat**  
COO



**Naomi Ohira**  
Finance Officer  
and Assistant



**Ralph Gambetta**  
Promotion Manager



**Manon Chaix**  
Communications and  
Marketing Manager

## Technical Experts Pool



**Ludovic Teixeira Costa**  
Technical Expert  
Certification and Mobile



**Paulo Barreto**  
Technical Expert  
Calypso Range of Products  
and Open SAM



**Pierre Terrée**  
Technical Expert  
Eclipse Keyple and Applet



**Philippe Guillaumin**  
Technical Manager  
Support

# Advisory Board

The CNA Board of Directors continues to work with the Advisory Board of adhering members. As a rule, the Advisory Board holds two joint sessions with the Board of Directors to discuss perceived market trends and realities from relevant industry stakeholders.

## The Advisory Board and the CNA Team met four times this year

The meetings provide an opportunity to highlight market issues and trends, as well as developments that will be led by the industry, providing a unique opportunity to collaborate on communications and marketing. The major topics identified were ISO A, the promotion of Calypso success stories and different implementations around the world.

The Advisory Board took on an increasingly committed and important role in the day-to-day work of the association and it has become necessary now to assign a board spokesperson to build links with the association wider member community for greater impact and cohesion.

- **Louis Brosse**  
Wizway
- **Cristiano Pardo**  
HID Global
- **Maria Ramirez**  
Thales
- **Frédéric Sauvayre**  
Infineon
- **Christian Senly**  
Cubic



# Market Committee

At the request of the Board, a Market Committee was launched in January 2024 to create a collaborative working environment for marketing and communication topics.

The aim was to involve members in the collaborative creation of promotional tools and data.



# CNA consultants around the world

*The core team also benefits from local support across the globe. Our extended team is available to answer any local questions with their regional knowledge and can also act as a bridge to CNA's core global experts.*



# Members

CNA's diverse membership is one of its most unique and valuable assets.

Its members represent the entire ticketing ecosystem, bringing together political authorities, transport authorities, associations, transit and service operators, manufacturers in the field, research and development organisations, and consultants.

All these diverse points of view enable developments of the Calypso Open Standard in direct response to market needs and expectations. Each perspective provided by members helps to define and create a range of complementary ticketing solutions that can work together in an open context.

It is Calypso users who, given the different needs and contexts they represent, enable the Calypso Standard to offer rich solutions that no other technology can match. CNA provides a comprehensive and relevant overview of customer needs to suppliers of Calypso products and solutions, to enable them to propose an appropriate offer in a timely manner.

It is CNA members who define the future of the Calypso Standard, with the help of an unrivalled team of experts that listen to their needs and collaborate to meet their expectations.

## CNA members are the driving force behind change:

requesting, producing and implementing ticketing innovations based on the Calypso Open Standard. CNA would like to thank them for their constant collaboration and creativity, which continually enriches the standard.

The Calypso Awards celebrate these active, inventive and inspiring members. In 2024, one of these awards was won by Île-de-France Mobilités for its huge step forward in the implementation of Calypso on iOS and the amazing success of its deployment of Calypso on iPhone, delivered in time for the Olympic and Paralympic Games. This was achieved in close collaboration with Apple and Wizway, a major player in the development of this solution.

The awards also recognised the deployment of Calypso Basic, a simple, cost-efficient product operating at the other end of the range, further demonstrating the richness of Calypso solutions.



New members	CONDUENT BUSINESS SOLUTIONS	INFINEON	PLUSERVICE
	CONFIDEX	INSITRA	PRODATA MOBILITY BRASIL SA
	CONSEIL REGIONAL DE BRETAGNE	INTERPARKING	RATP
	CORVUS DATA S.A. de C.V.	ISRA CARDS	RATP SMART SYSTEMS
5T	CTS	ITSO	SCHEIDT & BACHMANN
ACTV	CUBIC	JM ASESORES Y SERVICIOS	SELP
ADCET	DATARAXYS	KENTKART	SEMITAN
ADVANIDE	DIGIMOBEE	KEOLIS	SEMOVI
AGILTECH	ECMAC	KONTRON PUBLIC TRANSPORTATION NV	SETEC
AJ ELECTRONIC DESIGN	EDY NOGA TECHNOLOGY	KUBA	SIBS CARTÕES
AMBB TECHNOLOGIES	EGIS GROUP	LANDKREIS KONSTANZ	SIGMA SPA
ARQUIURBUS	ELITT	LINK CONSULTING	SNCF
ASIS ELEKTRONIC	ENBI	LINXENS	SOCIETE DE TRANSPORT DE MONTREAL
ASSTRA	EXCEET CARD GROUP	LOGIPLUS	SONDA
ATENCION EFICIENTE	FAMOCO	MARLOX	SPIRTECH
AUROTTRANSIT	FIME	MERCADO LIBRE	SPRINGCARD
AVANTRONICS	FLOWBIRD	METROPOLITANO DE LISBOA	ST MICROELECTRONICS
AZIENDA TRASPORTI MILANESI	GAPLET	MICROSAFE	STIB
BILLETTIQUE SERVICES	GCN ITS	MK SMART	THALES DIS
BILLING PAY	GIESECKE & DEVRIENT	MYCARD	TISSEO
BLUE BIRD TECH IT	GOOGLE	NAGELS	TML
BMC	GPSCONTROL SA DE CV	NOUVELLE AQUITAINE MOBILITÉS	TPBI
BROXEL	HB TECHNOLOGIES	NR TEC DESAROLLOS TECNOLOGICOS	TRANSDATA
CALMELL GROUP	HID GLOBAL	OAKLEN CONSULTING	TTID TECH
CARD4B	IALTO	ORMAES	UNICOCAMPANIA
CARRIS	ICUBE	OTTANTA LTD.	WATCHDATA TECHNOLOGIES
CB	IDEAR ELECTRONICA	OTW	WIZWAY
CETUD	IDEMIA	PARAGON ID	XIAMEN LENZ COMMUNICATION CO
CIBEST	IDENTIV	PARNE SOLUCIONES TECNOLOGICAS	
COMUTITRES	IDFM - ILE DE FRANCE MOBILITES	PLANETA	



# Collaborative working groups

*CNA specifications are the result of working groups in which all members are invited to participate.*

We are proud to have between 80 and 100 registered participants (active contributors or followers) on each of our Technical Committees (Card, Terminal, ABT, Mobile, SAM & Security).

New groups are formed on specific topics depending on the needs expressed by members and the latest developments in electronic ticketing.

In 2024, the 'Account Based Ticketing' (ABT) Technical Committee was created to meet the need for standardisation and to consider Calypso's role in this field. CNA's 'Security and Quality of Service' Club also celebrated its first year of existence, offering members a forum for exchange and collaboration on operational subjects affecting Calypso systems already deployed.

CNA is keen to extend this collaborative, constructive dynamic through exchanges and partnerships with other associations or groups, to share strategic views on open standardisation and broaden the potential scope for Calypso adoption.

In 2024, it was therefore pleasing to establish a cross-membership relationship with ITxPT, the non-profit association for those interested in developing public transport into the most efficient, sustainable and attractive means of travel, and the SPAC Alliance, which brings together various players in access control and cyber security in Europe.



# Training and skills development

*CNA was originally formed to manage and develop the Calypso Standard. However, to enable Calypso to be truly adopted by all players in the ticketing community, it became necessary to support its implementation and use.*

This is why, for several years now, CNA has been making major efforts to offer a range of training, consulting, expertise and technical support services that promote the adoption of Calypso. These are aimed at all parties who use or plan to use Calypso, whether they are operators, suppliers or consultants.

Among these services, bespoke training promotes understanding and mastery of the Calypso Standard. CNA invested significant effort into this activity in 2024, conducting multiple training courses with transport authorities in Angola, Mexico, Romania and Senegal. These training courses enable key decision-makers to improve their ticketing knowledge, to better understand the full potential of Calypso and to better express their needs to suppliers.





# Promotion and geographical expansion

## Promoting Calypso worldwide is another of CNA's key activities.

In addition to its unrivalled performance, the success of the standard also depends on it being adopted by as many players as possible.

To this end, CNA has set up contributors in certain countries, within the limits of its resources, to better understand the needs of the local market, explain the benefits of Calypso and liaise with the permanent CNA team.

In 2024, CNA managed intercontinental meetings between authorities members of the association to share experiences, feedbacks on experiences, innovations and advices to allow others to save time and money.

The activities of the WG dedicated to promotion and institutional relations were very intense and fruitful in 2024.

The number of members in the Latam region continues to grow, as the contacts established with local and international suppliers, facilitating local offer of the standard. Thanks to the visibility of the Mexico City network and our local support, other authorities study our standard as the solution for their projects, such as the State of Mexico, where we have supported interoperability with Mexico City based on Calypso. In Brazil, the main projects in which we are involved concern Rio de Janeiro and Sao Paulo.

For promotional activities close co-operation with the UITP Latam office is of key importance.

Looking into Africa we have deepened our cooperation with local stakeholders driven by the fundamental support of our two Board members from Senegal and Angola.

In European market, regarding Italy, we have enhanced our strategic partnership with Asstra by joining their ITS WG and developed our membership at Club Italia with our local representant. We also deepened our engagement with the Bucharest-Ilfov authority by organising a workshop.

# Communication and project visibility

## Communication strategy

In addition to technical excellence, we wanted to add another dimension to our communications in 2024; one that sets us apart from all the other standards and solutions, both in terms of the number and diversity of deployments, and in terms of a team that is available and driven by shared values of openness and accessibility.

### Among our communication highlights for the year are:

- Enhancing Calypso Live, which lists examples of very different deployments in different parts of the world, to showcase new models and achievements.
- Interviews with Board members, team members and local representatives to share their market insights and show the human side of the association.
- Practical materials aimed at previously underserved audiences, such as directors and managers of ticketing services.

Designed to highlight the ways in which the Calypso Standard is guided by a logic that balances technical capability with real-world.

This resulted in new, informative communications including: an updated handbook (now available in French); a new video of the Hoplink application in action; and simple guides to technical subjects, such as the minimum requirements for migrating to Calypso, showing that the process is neither complicated nor expensive.

- Demonstrating how the solutions proposed by the association correspond 'by design' to the new needs of networks, such as ABT or mobile validation and recharging solutions.
- Educating the industry on topical issues, such as the ST25 hack, reassuring the industry that the Calypso Standard is designed to help avoid these weaknesses.





*We also aimed to highlight the in-house technical skills that support the Calypso Standard each day. Publicizing the support and assistance available directly from the standard's experts helps to develop and diversify the association's sources of revenue and make it more resilient to any shipment fluctuations.*

*Simplifying access to all information – both general and technical – was also important in 2024, ensuring calypsonet.org and other media controlled by the association is clear and easy to find.*

## Increased visibility

In the past year, CNA significantly increased communications with the wider public on LinkedIn and the CNA website, providing with regular news and trends analyses to external audiences, including industry analysts and media.

## A changing image

In parallel with the association's stated intention to explore other areas of activity, a new visual identity was also created to reflect these evolutions in CNA's presentation materials. These continue an evolution that began some time ago: cleaner, more modern and more global. CNA's new graphic charter has been used in communications materials, newsletter, stands and is coming soon to the website.



## New strategic partnerships

As it has throughout its history, CNA continued to cultivate new strategic partnerships:

We established a cross-membership relationship with **SPAC Alliance** to enhance integrated, secure systems. As a first step, CNA and SPAC have introduced each other to their respective domains (access control and transport).

With **ITxPT** (Information Technology for Public Transport), we worked together on best practices and business models for sustainable technology development.

With **Codatu**, we presented Calypso and its advantages to multiple teams in Africa and introduced them to best practices for project management. This led to participation in meetings with key mobility players in Angola.

We signed a Memorandum of Understanding with **Nexo Standards** to explore how our work on standardising back office systems could converge.

## Established partnerships

In terms of institutional relations, we have continued our liaison agreement with the NFC Forum, making further contributions to their Mobility, Identity and Transport (MIT) Special Interest Group (SIG).

We have continued to shape digitalisation policies and ticketing initiatives with the UITP Information Technology and Innovation (IT&I) Committee, contributing toward its vision of future ticketing platforms.

We supported the Smart Ticketing Alliance (STA) through our active mandate as a member of their board and our current chairmanship. From a working group perspective, we actively provided input into the certification stream, ABT and nationwide ticketing. The latter is of significant interest for Calypso stakeholders at different European countries in particular.

We also deepened our engagement with the transport authority of Bucharest-Ilfov by organizing an onsite workshop dedicated to smart ticketing and Calypso solutions.

Across 2024, we have been active contributors and members of: ADCET (focusing on the development of multiservice usages), Eclipse Foundation, Codatu, ATEC ITS, MEDEF International, Club Italia, Ukrelektrotrans and Asstra.

We conducted bi-lateral meetings with members to strengthen ties, understand needs, and support projects all around the world, aided by our local representatives where necessary.

# Events worldwide

Events, whether as exhibitors, speakers or participants, are one of the major levers for increasing the association's visibility and reputation, as well as an opportunity to publicize the standard, its fields of application and, last but not least, the values that underpin the standard for its members. 2024 gave us many opportunities to gather CNA members throughout the transport ticketing industry:



< 16 April  
Venice, Italy

## Calypso Italia Open Day

The chance to present Calypso and CNA to numerous Italian ticketing stakeholders.

## The Partners Day

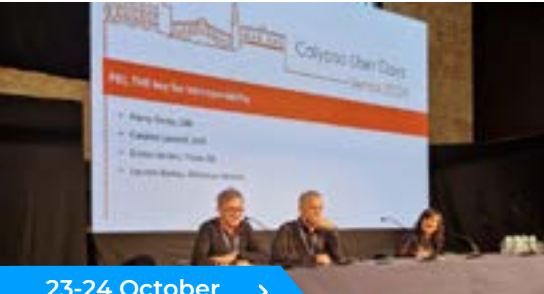


> 27th June  
Paris, France



> 4-5 July  
Budapest

## The 9th Smart Ticketing and Digital Services Forum



> 23-24 October  
Venice, Italy

## User Days

Open to all Calypso stakeholders.

In addition to its own events, the CNA was present and active in the main in the ticketing and public transport ecosystem.

In 2024, we met with ticketing members and stakeholders at a number of events: **Transport Ticketing Global London**, **Mobile World Congress Barcelona** and **European Mobility Expo** in Strasbourg as exhibitors.

With regard to its involvement in the IT&I Committee and several other UITP bodies, the Association took part in several events organized by this structure: the **UITP Latam** events in Salvador de Bahia and Curitiba, **UITP IT Trans** in Karlsruhe.

Our promotional activities also led us to take part in events organized by our partners, such as the

**Kontiki events** in Germany, the **Club Italia events** in Urbino and Genova, the **Asstra event** in Cagliari, the **Economic Forum** in Karpacz, the **Assises de l'ADCET** and the **CB Forum**.

We also had the opportunity to present Calypso's approach to Open Source and Keyple at a Fab-Mob e-meeting. Codatu, an NGO which promotes sustainable urban mobility in cities of the South and of which CNA is a member, asked us to present the Calypso standard and the advantages of the philosophy of openness and interoperability to its PTA club.



< 2 December  
Paris, France

## The annual Open Session

Our flagship event, headlined by the presentation of the Calypso Awards.

## The Open Tech Day

An opportunity to present the latest developments in Calypso and the results of the Technical Committees.



# Resources

## for the CNA community

CNA is committed to providing free, valuable resources for the contactless ticketing community including eBooks, brochures and blogs.

### Calypso library

Access all the technical and non-technical documentation about Calypso, and CNA services, with a powerful Document Search tool.

### One-pagers

For all you need to know about Calypso Prime, Prime PKI, Calypso Light, Calypso Basic, Calypso's solutions for mobile, Keyple, our short guides provide the perfect introduction, all available in the [Calypso Library](#).

### Calypso handbook

The CNA Handbook provides an extensive guide to the role, offering and governance of the Calypso standard. It is a must-read for both existing and potential users of the technology.

### Training programme

View CNA's full training brochure with details of all modules, as well as information on how to arrange bespoke training tailored to specific requirements.

### Guide for calls for tenders

The purpose of this document is to outline what is required in a call for tenders for Calypso contactless cards, NFC mobile ticketing systems and terminals to guarantee compatibility and scalability.

### Blogs

Read CNA's official blog, [Transport Ticketing Trends](#), to get the latest insights and commentary from the CNA team and its member community on contactless ticketing advancements, opportunities and challenges.

### Newsroom

Read the latest updates and announcements from CNA in the [newsroom](#).

### Newsletter

[Subscribe](#) to CNA's monthly newsletter to stay up to date with the latest news, events and insights from the organisation. Your email address will never be shared with third parties and you can unsubscribe at any time.

### Events

CNA offers a [global programme of events](#) for members and non-members throughout the year with the latest information on the website.

# Financial statements

The rebound in contactless card sales observed in 2023 was confirmed in 2024, boosted by new ticketing services launched by the City of Paris (the replacement of old magnetic tickets and the addition of a post-payment offer with a transport card), itself driven in part by the city's hosting of the Olympic Games.

The launch of the Paris ticketing offer on iPhone also contributed to a general boom in Calypso activations on NFC-enabled mobiles.

As a result, **licence revenues increased by more than 50%** on 2023, making 2024 an exceptional year in terms of turnover for the association.

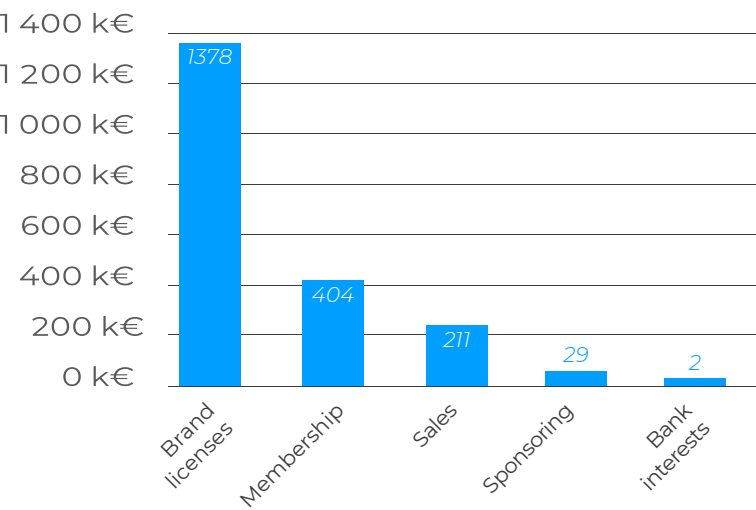
Added to this is an increase in the number of memberships and growth in sales of services.

Anticipating this sharp rise in licence revenues during the year **enabled CNA to invest more in technical work** (OpenSAM and Keyple programmes, finalisation of the Calypso Prime applet 2.0) and in promotional and communications initiatives (review of strategy, modernisation of visuals, development of online services).

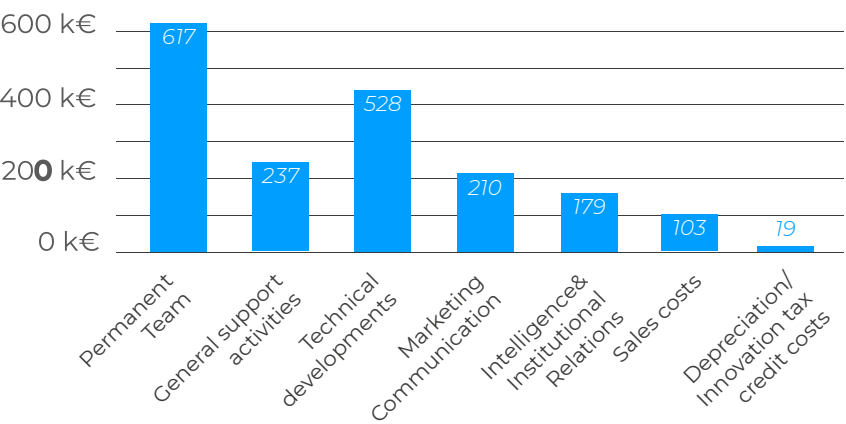
The association ended the year with a **positive result of €170,000, confirming its financial security and its ability to continue investing.**

2024 Result (k€)	
Turnover	2024
Expenses	1893
Taxes-Innovation tax credit	+ 39
<b>RESULT</b>	<b>+ 170</b>

### 2024 Turnover



### 2024 Expenses



# 2025 outlook and objectives

## Technological Development

In late 2025 we plan to finalise the OpenSAM project with the publication of specifications, provision of testing and certification tools, and definition of the trust chain. **CNA's aim is to enable industrial production and deployment of this new generation of Calypso security modules from 2026.**

Elsewhere, the ABT technical committee (TC) will embark on a second phase of work, focusing on the operational implementation of a Calypso ABT system, ideally based on a pilot project by one of the contributing members.

CNA's contribution to the Eclipse Keyple open source project will also remain very active. We remain focused on facilitating the integration of Keyple solutions within multiple ticketing equipment environments. In particular, we will contribute to the development of extensions enabling the processing of all types of NFC ticketing media, to meet the technical migration operational requirements of operators wishing to deploy Calypso systems.

**Beyond the world of public transport, CNA is exploring other use cases for the Calypso standard**, centred around its guaranteed interoperability and security in electronic contactless systems. Calypso media can be used for access control, event ticketing and access to services such as EV (electric vehicle) charging.

The CNA team will continue its efforts to work with players in these fields to explore and identify the technical solutions best aligned with their specific needs.



## Expansion and global growth

**2025 will be a year of increased Calypso deployment in parts of the world that have most recently adopted the open standard.**

Following the success of Mexico City's ticketing project, CNA will support the interoperability drive that is spreading throughout the State of Mexico and neighbouring states. We will continue our monitoring and support activities in South America, particularly in Brazil, where consideration of Calypso-based ticketing is now high on the agenda. In Africa, we will continue to support the rollouts planned in Senegal (Dakar) and Angola (Luanda), and will actively support the emerging project in South Africa.

To support this development and its promotion throughout the world, CNA will maintain its network of local experts; invaluable ambassadors who are attentive to the needs of the regions in which they are based.

CNA will also maintain active participation in strategically important international electronic ticketing events, such as Transport Ticketing Global in London and the UITP Summit in Hamburg.

In addition, following the example of access control and EV charging, the association will continue to explore new fields of application for the Calypso standard and to monitor emerging needs worldwide.





## Cooperation and human resources

**CNA aims above all to be a collaborative space for its members.** With this in mind, the association will always endeavour to develop new and valuable networking formats: for example, in 2025, a regular online 'Coffee Break' will be offered to members to share information, answer questions and discuss topical issues alongside a CNA expert. In addition, the CNA team will continue to facilitate engagement, the sharing of experience, and genuine cooperation between cities or regions whose electronic ticketing projects have similar contexts and challenges.

**The collaborative model is and will remain at the heart of the association's operations.**

The model guarantees the way in which Calypso meets the operational needs of the electronic ticketing world, the technical excellence of the specifications and tools, and a long-term vision of electronic ticketing strategies based on standardisation.

It comprises various technical committees, chaired by experts dedicated to developing and maintaining the Calypso standard in its various fields of application; the Board of Directors, in charge of the strategic line and validating publications; support from the Advisory Board of industrial members; and user groups such as the Hoplink college.

To support its members and continue delivering actions that drive growth, CNA will need more than ever to invest in a strong permanent team, whose resources will be increased to take better charge of projects and day-to-day tasks.



## Conclusion

The work carried out over the last few years has enabled CNA to reach technological maturity, in terms of both media and ticketing systems. Calypso is now a tried and tested standard of excellence that can be adapted to a variety of ticketing system configurations. Building on this momentum and experience, the association is confidently looking ahead to the electronic ticketing challenges of tomorrow.

It seems that on a global scale, where needs differ from one region to another, adapting to local realities (travel and purchasing habits, level of network coverage, level of banking penetration, level of smartphone use) is the key to success for a standard like ours. What's more, at a time when the issues of sovereignty and sustainable development are particularly sensitive, the important role of an association like CNA as a collaborative space for long-term development, makes more sense than ever.

Our strength lies first and foremost in our human capital. Our members' involvement in working groups and events in the ticketing sector is our driving force. You too can join our professional community to become part of a virtuous circle continually advancing open, strategic, responsible and inclusive contactless electronic ticketing.

# Join the CNA community

CNA provides a unique opportunity to exchange ideas, experiences, and requirements within a supportive and collaborative environment. By working together, it creates an opportunity to secure control over the smart ticketing ecosystem and create a sustainable framework for the future.



## Member benefits

All CNA members benefit from greater ownership over the smart ticketing ecosystem via:



### Networking and collaboration

CNA brings together the brightest minds within the transport and mobility community to share experiences and facilitate industry collaboration



### Access to CNA's working groups

Join and participate in CNA's working groups to promote open standards and influence the future direction of Calypso technology



### Invitations to CNA's global events programme

Partake in CNA's global programme of events, networking opportunities and annual awards ceremony



### Technical support

Receive comprehensive technical support and preferential rates on Calypso technology



### Training opportunities

Gain new skills via preferential rates on CNA's year-round training programme, tailored to member requirements



### Exclusive access to Calypso technology documents

Access the Calypso library, including documentation, specifications and guidelines



### Strategic support and expertise

Receive preferential rates on strategic support aligned to local, national or global ticketing requirements

# Calypso

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