



Activity report 2020



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Introduction

Dear Calypso
friends and partners,



I am pleased to share CNA's 2020 Activity Report, which highlights the association's progress and achievements over the last 12 months.

As the governing body of Calypso technology, CNA was founded with one simple aim: to support the use of the open Calypso technology standard to enable transport and mobility operators to control and advance their contactless ticketing systems. Throughout 2020, our diverse community, incorporating 106 members, has worked tirelessly to advance our goals and progress our mission amid the challenging backdrop of a global pandemic.

In December 2020, CNA's General Assembly reinforced that we have made strong progress, and this is reflected throughout this report. On a personal note, I was honoured to be re-elected as the Chairman of CNA and to have the privilege of leading the association in its efforts to control and evolve the contactless ticketing ecosystem through open standards. We also welcome three new participants to the CNA Board: Giovanni Foti of Asstra, Roberto Andreoli of ATM and Vitalijs Komars of B-Bus.

Now more than ever, CNA provides a truly unique opportunity to exchange ideas, experiences, and requirements within a supportive and collaborative environment. By working together, there is an opportunity to secure control over the smart ticketing ecosystem and create a sustainable framework for the future.

I extend my sincere thanks to the entire CNA team and broader Calypso community, including our users and partners, for their ongoing contributions to the association over the past 12 months. I look forward to the year ahead.

Best wishes,
Philippe Vappereau
Chairman of Calypso Networks Association

CNA's mission

Connecting the contactless ticketing community

CNA is a not-for-profit organisation that brings together members of the transport, mobility and services communities to exchange ideas, experiences and requirements to advance open systems that support consumer ticketing needs.

Mission:

To regulate and ensure the long-term sustainability of Calypso technology and promote open standards to enable their use across local, regional, national and global ticketing requirements.

Specifications

Advance global standardisation through interoperable systems and open standards

Certification

Ensure performance, security and reliability

Calypso brand

Promote trust and quality

Collaboration

Work together to create opportunity through open standards

Community

Share knowledge, experiences and expertise

The CNA community combines transport and mobility authorities, operators, and service providers, as well as technology manufacturers and transport consultants. It is a diverse and welcoming community which spans public and private sector organisations.

2020 in numbers

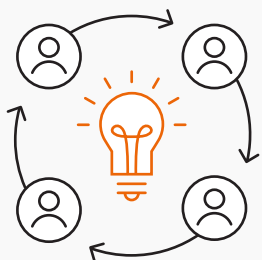
Members

106



Active
working groups

8



Webinars and events

7



New members

16



ADVANIDE

ANY SECURITY PRINTING COMPANY PLC

ASSTRA

B-BUS

BUSSI

DIRECTORIO DEL TRANSPORTE PUBLICO METROPOLITANA

EXCEET CARD GROUP AG

ICUBE

LOGIPLUS

MASKTECH

MEDIAMOBILE ITALIA S.p.A.

PREFEITURA MUNICIPAL DE PORTO ALEGRE

ROBOTICA E INSTRUMENTACION INDUSTRIAL SA DE CV

SET SRL

SONDA S.A.

SP TRANS

Calypso Technology

Manufacturers

40



Countries worldwide

27



Calypso-compatible terminals

500,000



Shipped cards in 2020

21.3+ million



Products certified

38



Cities

160+



Independent sources of chips

3





CNA's strategic priorities in 2020

Supporting the community during the Covid-19 pandemic

Throughout the pandemic, delivering value to CNA members has remained the highest priority. The association has continued to advance its mission via virtual channels with all working group meetings taking place online, alongside virtual webinars and events to support members and encourage collaboration within the community.

More broadly, contactless ticketing has been an invaluable tool for navigating many of the pandemic restrictions to date: it supports crowd management, reduces unnecessary interactions and minimises contact points. Yet its benefits are far-reaching beyond the pandemic: implementing open standards is integral to give transport authorities and operators control over their ticketing network for the future.



Technical milestones

Eclipse Keyple: CNA placed a strategic focus on open-source software, Eclipse Keyple, during 2020 as it is easy to use, flexible and accessible to all, enabling the community to build to the Calypso ticketing standard with no vendor lock-in. As a result, Keyple v1.0 is now available and the first on-field implementations of Keyple are already running. This demonstrates true innovation in open-source software, makes the Calypso standard even easier to use and reinforces its openness and ability to meet Mobility-as-a-Service (MaaS) requirements.

Evolving CNA's certification: In 2020, the certification program for portable objects was transferred to Paycert, the independent certification body, enabling a truly unbiased process. Defining, maintaining and ensuring the use of the Calypso certification programme is vital to create a trusted foundation and confidence that Calypso ticketing solutions are sustainable, scalable and compatible today and in the future. Following feedback from members, CNA also launched a programme to establish the functional certification of Calypso terminals. CNA's recent Certification [eBook](#) is a valuable resource to learn more.

Further developments from CNA's working groups in 2020 included:

- A complete overhaul of the documents concerning recommendations for reader programming
- The delivery of the applet version 1.3.9.
- The launch of security certification process for the HCE mobile application
- An update of the document database on Calypso Technical Support website
- HCIA (HCE Calypso Interoperable Application) solution in the context of Hoplink
- The delivery of the Basic specifications, completing the Calypso range of cards

Expanding CNA's global presence: Demand for Calypso in Latin American prompted CNA to appoint representation in Mexico City in 2020. Furthermore, CNA's Italian desk secured a strategic partnership with the Italian transport operator association, Asstra, which became a member of CNA in 2020.

Global programme of events

CNA offers a global programme of events for members and non-members throughout the year. In 2020, they provided an important opportunity to network with other industry professionals, learn new skills, discuss challenges and collaborate. CNA's team regularly participate in industry events for the transport ticketing community.

CNA webinars

Joint webinar between CNA and OSPT members to announce the collaboration

January 2020

The webinar announced details of CNA's collaboration with OSPT to drive the global adoption of open standards in transport ticketing. It was delivered to CNA and OSPT members ahead of the formal public announcement.

How to reclaim your ticketing system with open-source and Keyple

October 2020

Tailored to a French speaking audience, this webinar explained the advantages of open-source technology and the strategic value it can add, with insights on how to control costs, guarantee functionality, openness and how to request it within a tender process.

Discover Eclipse Keyple: the open-source SDK for ticketing

October 2020

The webinar provided an important overview on Keyple for the open-source community, with an opportunity to discuss common challenges with transport ticketing technology, open-source solutions and pose questions to CNA's experts.

Calypso: a full range of certified products for all your needs

November 2020

The webinar explored interoperability, future sustainability and cost management to demonstrate how to establish a best practice approach to certification.

CNA virtual events

Online Partner Day

July 2020

Conducted entirely digitally, CNA's Partner Day discussed a new industrial strategy for terminal interoperability and certification, facilitated in large part by CNA's Keyple framework. It presented an important opportunity for partners to discuss strategic approaches and challenges and receive CNA's guidance and support.

Industry events

Open Transport Meet-Up in London

January 2020

Alongside Cubic Transportation Systems, Kisio Digital, Stratageeb and Wizway Solutions, CNA participated in the industry meet-up dedicated to open-source solutions in the field of ticketing.

Nouvelle Aquitaine Mobilités (MaaS) seminar

September 2020

CNA's Chairman, Philippe Vappereau, delivered a presentation on the value of open-source and Keyple for ticketing within public transport.

UITP Latam

CNA participated in UITP's Latin America Week 2020 with a virtual booth.





Collaboration with OSPT Alliance

CNA and OSPT Alliance have continued to collaborate to drive global adoption of open standards in transport ticketing, with the long-term goal of converging their respective standards – Calypso and CIPURSE. Members of the CNA community will know the dangers of vendor lock-in and why CNA and OSPT must work together to deliver the best possible ticketing ecosystem. Simplifying education around open transport ticketing standards, and helping a broader audience understand the value, is a key motivation in this collaboration with OSPT Alliance. It will empower public transport operators and public transport authorities to control and advance their ticketing systems.

For existing CNA members, this alliance represents a unique opportunity to further drive CNA's core objective of evolving smart ticketing to become the central gateway to consumer mobility and access control services. The possibilities are limitless.

The image shows a screenshot of the OSPT Alliance website and a photograph of two men shaking hands. The website banner at the top has a teal header with links for LinkedIn, "Join our Mailing List", "Contact", and "Member Log". Below this is a navigation bar with links for "Technology", "Membership", "Community", "Why OSPT?", and "Resou". The main banner features the OSPT Alliance logo and the tagline "Enabling the Future of Mobility Services". The central text on the banner reads "Supporting Innovation and Collaboration", followed by "Educating the industry and supporting all stakeholders". A green button with a right-pointing arrow says "Learn more about our impact on the industry and how we can support you". Below the banner is a photograph of two men in business suits shaking hands in front of a large screen. The screen displays the text "Calypso Networks Association and OSPT Alliance: A Member Announcement" and "Copyright © 2020 CNA Association & OSPT Alliance". The number "13" is visible in the bottom right corner of the page.

Strategic partnership: CNA joined the NFC Forum

CNA is pleased to become a liaison partner of the Near Field Communication (NFC) Forum and look forward to working with this community to advance the use and interoperability of NFC technology worldwide.



New resources for the CNA community

To ensure CNA continues to serve as a valuable resource to the contactless ticketing community, CNA launched its brand new website in 2020. It reflects CNA's digital evolution and is packed full of important information for the transport, mobility and services community including:

- Comprehensive information on all CNA membership benefits
- Details of all upcoming CNA events and webinars
- Up-to-date information on all Calypso technology
- Details of CNA's strategic services including training and technical support
- And much more...

2020 General Assembly and new Board members

The 2020 General Assembly marked the appointment of a new Board of Directors. CNA welcomes the following new members to the CNA Board:

- ASSTRA, represented by Giovanni Foti
- ATM, represented by Roberto Andreoli
- B-BUS, represented by Vitalijs Komars

The General Assembly demonstrated that CNA has made strong progress against its objectives to date and its focus is now firmly placed on driving future success. Working closely with this community, the new mandate for 2020-2023 will provide a strong foundation to empower the contactless ticketing ecosystem in the years ahead.

CNA's strategic priorities for 2021



Technical advancements:

Alongside ongoing maintenance enhancements to existing technology, CNA continually seeks opportunities to ensure the Calypso standard is ahead of future user needs. The newly released Eclipse Keyple v1.0 is a clear example of this and work will continue to drive innovation in this area including the launch of Keyple v2.0 with all Calypso features, and the C++ version.

Trust and transparency:

Defining, maintaining and ensuring the use of the Calypso certification programme is vital to create a trusted foundation and confidence that Calypso ticketing solutions are sustainable, scalable and compatible today and in the future. With a full certification programme available for Calypso cards, CNA is currently creating a certification process for terminals, based on the interfaces of the Keyple API. This will further extend Calypso's interoperability.

Educating and connecting the contactless ticketing community:

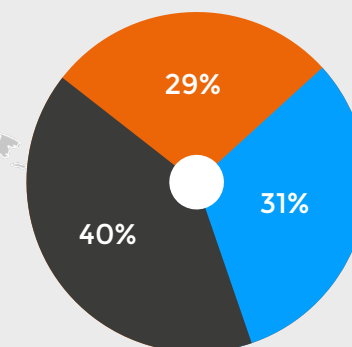
In promoting the Calypso standard, CNA is bringing members of the transport, mobility and services community together to benefit the entire ecosystem. CNA continues to provide a unique opportunity to exchange ideas, experiences, and requirements within a supportive and collaborative environment. During the ongoing pandemic, CNA will deliver a complete programme of webinars to stay connected and share important information, with the strong hope that community will be able to meet in person before the end of 2021. Delivering tangible value to members is of the highest priority.

CNA Worldwide

CNA members

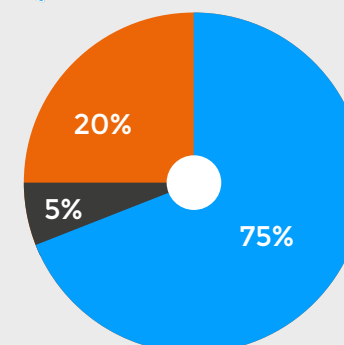
By Organisation

- Authorities, Operators, Associations
- Cards and terminals providers
- Consultants and software providers



By Geography

- Americas
- Asia
- Europe



The Calypso standard is deployed in 27 countries worldwide.

With more than 40 manufacturers engaged with Calypso, 38 products certified and 3 independent sources of chips, Public Transport Operators (PTOs) and Public Transport Authorities (PTAs) have confidence that they will not be locked-in by a single vendor.

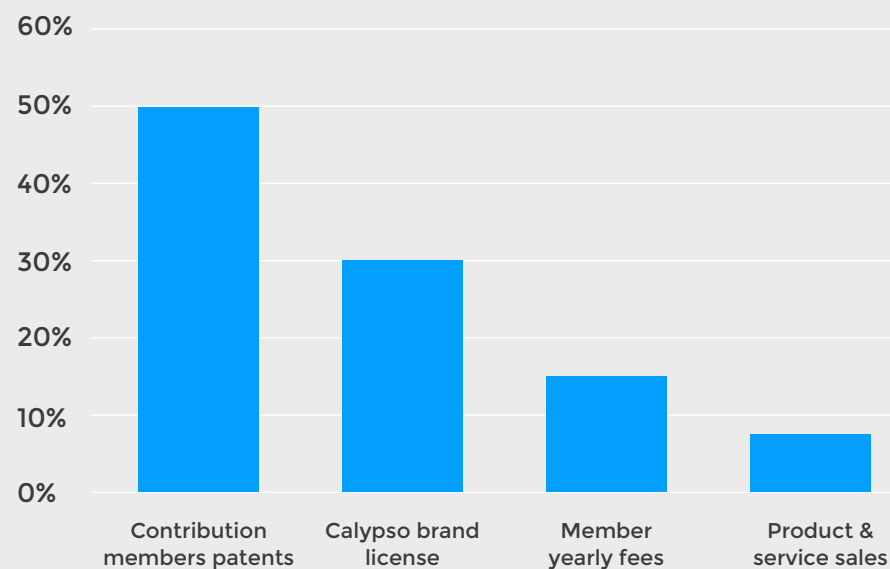
CNA members in 2020

| | | | |
|-----------------------|---------------------------|-----------------------|---------------------|
| 5T | DEJAMOBILE | INTERPARKING | PAYCERT |
| ACTV | DIGIMOBEE | INZIGNIA | PLUSERVICE |
| ADCET | DIRECTORIO DEL TRANSPORTE | IQUANTICS | PORTO ALEGRE |
| ACS | PUBLICO METROPOLITANA | ITSO | PW CONSULTANTS |
| ADVANIDE | DUALI | JM ASESORES | QILIUM |
| AEP | EASYWAY | KEOLIS | RATP |
| AGILTECH | ECL INTERNATIONAL | KUBA | RATP SMART SYSTEMS |
| ANY SECURITY PRINTING | ELATEC | LANDKREIS KONSTANZ | ROBOTICA |
| COMPANY PLC | ELITT | LIGURIA DIGITALE | SELP |
| ASSTRA | exceet CARD GROUP | LINK CONSULTING | SEMOVI |
| ATM | FAMOCO | LINXENS | SET |
| B-BUS | FIME | LOGIPLUS | SIA RIGAS KARTE |
| BILLETIQUE SERVICES | FLOWBIRD | LS CARD | SIGMA SPA |
| BLUENET | GALITT | MASKTECH | SNCF |
| BMC | G+D | MEDIAMOBILE ITALIA | STM |
| BROXEL | GRAND AVIGNON | MICROSAFE | SONDA |
| BUSSI | GSD PLUS | MINISTRY OF TRANSPORT | SP TRANS |
| CARD4B | HB TECHNOLOGIES | ISRAEL | SPIRTECH |
| CETUD | HID GLOBAL | MK SMART | ST MICROELECTRONICS |
| CTS | HIGHQ | MOBILE KNOWLEDGE | STIB |
| CONSORTIUM CB | ICUBE | MYCARD | TELEMATICA |
| COMUTITRES | IDEA PARTNERS | NAGELS | TGS CARD SOLUTIONS |
| CONDUENT | IDEAR ELECTRONICA | NOUVELLE AQUITAINE | THALES |
| CONFIDEX | IDEMIA | ONE WAVE | THALES DIS |
| CUBIC | IDENTIV | OTLIS | TISSEO |
| DAT | IDF MOBILITIES | OTW TEC | UBITRANSPORT |
| DATARAXYS | INFINEON | PARAGON ID | WATCHDATA |
| | | | WIZWAY |

Financial statements

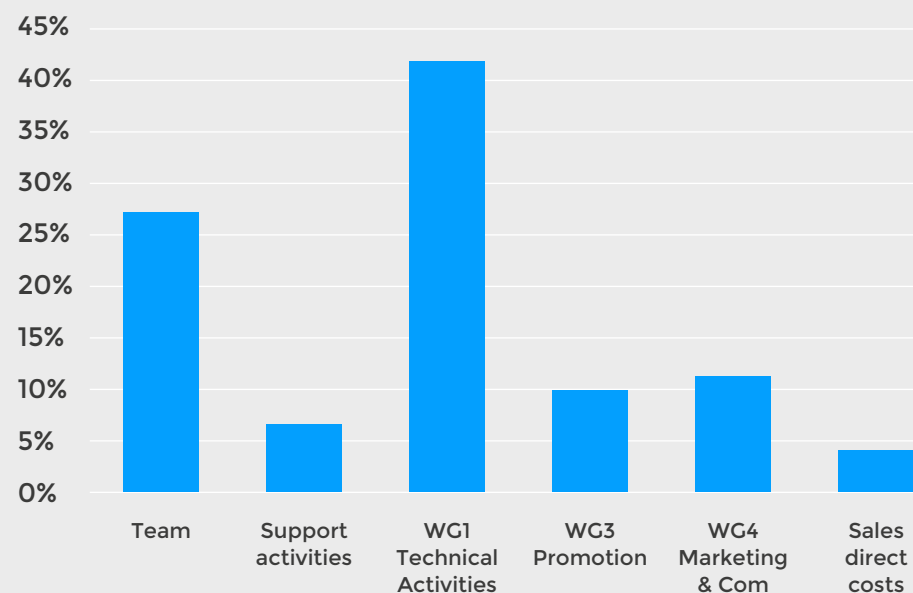
| 2020 Main figures | CNA Brussels | CNA Paris | Total |
|-------------------|--------------|-------------|-------------|
| Turnover | 312 460 € | 1 783 500 € | 2 095 960 € |
| Expenses | 178 810 € | 1 794 330 € | 1 973 140 € |
| Result | 133 650 € | (10 830) € | 122 820 € |

2020 Turnover



CNA's 2020 turnover is the highest in CNA's history. This is largely due to the very high sales of Calypso cards in 2019 - a total of 29 million cards, reinforcing the market demand for Calypso technology.

2020 Expenses



In 2020, the budget dedicated to promotion was significantly reduced due to the Covid-19 pandemic and the safety guidelines which required the cancellation of events, conferences and exhibitions. The available budget was reallocated to the technical developments of WG1.

Join the CNA community

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



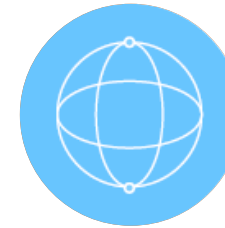
Networking and collaboration:

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



Strategic support and expertise:

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



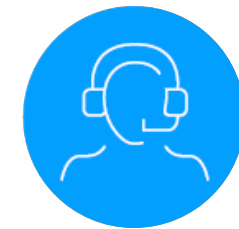
Training opportunities:

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



Technical support:

Access the Calypso library, including documentation, specifications and guidelines

“The support we received from CNA was invaluable. Not only was their level of expertise second to none but the amount of support they provided and their responsiveness was truly outstanding.”

Grégory Boissinot,
RATP Smart Systems
Paris, France



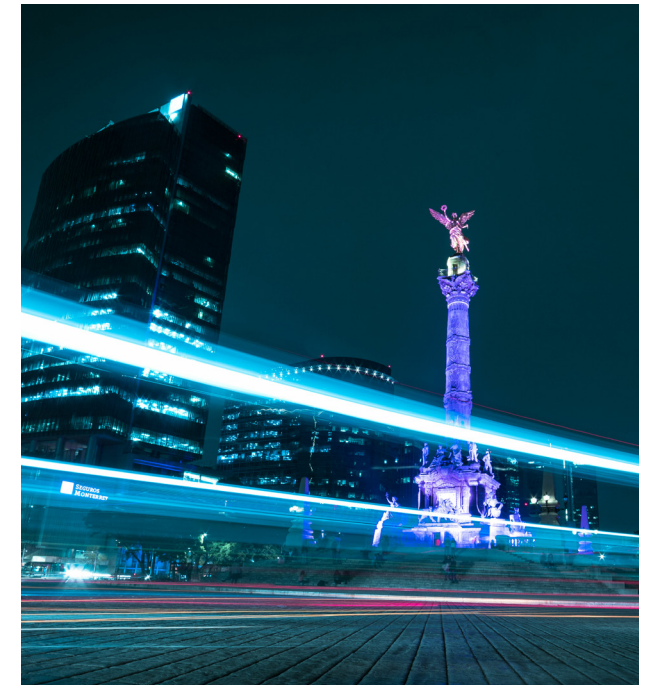
“The support of Calypso Networks Association was essential in the process of decision making, since they helped in the analysis of the possible scenarios and in the construction of a unified vision involving the needs of every transport operator.”

Viridiana Yelitza Delgado Yáñez,
SEMOVI
Mexico City, Mexico



“In order to ensure the openness and interoperability of our selected systems and equipment, Casa Transport contacted Calypso Networks Association for support. CNA evaluated the technology to ensure it was truly interoperable and could provide a sustainable framework that can evolve in accordance with CNA's open standards guidelines. This project was delivered successfully and to the full satisfaction of Casa Transport.”

Nabil Belabed,
Casa Transport
Casablanca, Morocco



Board of directors

CNA is managed by a Board of Directors appointed by the General Assembly every three years. There are currently 14 board members, represented by 15 officers.



ACTV, Venice Transport Operator
Vice-Chairperson,
User Committee, Promotion
& Marketing Represented
by Morgan Chirici



ACTV, Venice Transport Operator
Vice-Chairperson,
User Committee, Promotion
& Marketing Represented
by Gianluca Cuzzolin



OTLIS, Lisbon Transport Operators Consortium
Vice-Chairperson,
Keyple Development
Represented by
Fausto Sá-Marques



LANDKREIS KONSTANZ
General Secretary
Represented
by Zeno Danner



RATP, Paris Transport Operator
Chairman Represented
by Philippe Vappereau



SNCF, French National Railway Operator
Vice-Chairperson,
Industrial Strategy
Represented by Joël Eppe



STIB, Transport Operator of Brussels
Represented by Jean-Luc
Van Ginder Deuren



5T-TORINO

Represented by
Massimo Cocozza



ASSTRA

Represented by
Giovanni Foti



ATM

Represented by
Roberto Andreoli



B-BUS

Represented by
Vitalijs Komars



GIE CARTES BANCAIRES

Represented by
Pierre Chassigneux



**CTS, Strasbourg Transport
Operator**

Hoplink Governance
President, Represented by
Alain Caffart



INFINEON

Represented by
Katja Kienzl

Departures from the CNA Board in 2020

The Board would like to thank Rigas Kart, represented by Aleksandrs Brandav and Ilona Zaiceva, for their valuable contributions to CNA and the Calypso standard following their departure from the Board in 2020.

The CNA 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, São Paulo, Mexico and the Island of la Réunion to support CNA and its members.



Philippe Vappereau,
Chairman and CEO



Erik Baele,
Treasurer



Neide Ohira,
Finance Officer &
Assistant



Ralph Gambetta,
Promotion Manager



Manon Chaix,
Public Relations and
Communications Manager



Philippe Guillaumin,
Technical Manager



Paulo Barreto,
Technical Expert, Calypso
Range of Products



Pierre Terrée,
Technical Expert, Eclipse
Keyple, Applet



Ludovic Teixeira Costa,
Technical Expert,
Certification and Mobile



Nicolas Generali,
Technical Expert, ABT



Valentina Zajackowski,
Marketing Manager

Updates to the CNA team in 2020

CNA would like to thank Valentina Zajackowski following her departure from the team in 2020. CNA warmly welcomes Neide Ohira as the newest member of the team.

CNA correspondents around the world

The core team also benefits from local support across the world. The extended team is on hand to answer any local questions with their expert regional knowledge and can also act as a bridge to the experts of the core global team.

| | |
|--------------------------|---------------------------|
| Ana-Maria Paladus | Claudio Giovannini |
| Danijela Baric | Renzo Brunetti |
| Artur Kassovicz | Fernando Portella |
| Yuliia Kuznetsova | Guy Van Keer |
| Gianluca Cuzzolin | |



Enrique Gomez
Marketing Manager

CNA welcomes Enrique Gomez as the newest representative for CNA in Mexico.

Resources

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

eBook

[Calypso Certification: For Ticketing Today, Tomorrow and the Future](#)

Learn why certification is needed, and the value it brings to the transport ticketing and mobility communities. CNA's eBook makes it easy to understand all elements of Calypso certification and licensing with helpful guidance for manufacturers.

Brochures

[Member benefits](#)

Read CNA's member benefits brochure to understand how members will receive greater ownership over the smart ticketing ecosystem, alongside access to networking, events and much more.

[2021 training programme](#)

View CNA's full training brochure for 2021 with details of all modules, as well as information on how to arrange bespoke training tailored to specific requirements.

Blogs

Read CNA's official blog, [Transport Ticketing Trends](#), to get the latest insights and commentary from the CNA team 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.

Calypso

Networks Association

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 [@calypsonet_asso](https://twitter.com/calypsonet_asso)

 company/calypso-networks-association

 [Youtube Calypso Channel](#)

Newsletter:

Subscribe to the CNA newsletter via
the [contact form](#)

Resources

Read CNA's recent eBook:

[Calypso Certification: For Ticketing Today,
Tomorrow and the Future](#)

Read CNA's brochures:

- [Member benefits](#)
- [2021 training programme](#)

Learn more about CNA's upcoming events:

calypsonet.org/events

Visit the CNA newsroom:

calypsonet.org/newsroom