

# CALYPSO LIGHT APPLICATION BY CNA

## Low cost card, high security level

Calypso Light Application -CLAP- offers an ideal solution for low-cost and high-volume contactless cards production. For public transport, events, access control and many other applications, avoid magnetic stripes, barcode or QR-code, proprietary contactless tickets: take advantage of a fully secure and standardized contactless portable object with CLAP.

CLAP is a simplified Calypso Operating System which uses a subset of the Calypso rev3.1, with the same cryptography and security. It can be embedded in small components, paper or soft plastic, which allows it to be sold in automatic vending machines. CLAP has been designed by CNA to answer to operator needs, with a straight and fruitful cooperation with manufacturers in a dedicated CNA working group.

### / MAIN BENEFITS

- > High security and fast contactless transactions
- > Fixed file structure similar to existing ones (e.g. CDLight, CD 97) for a smooth integration into existing Calypso schemes
- > Strictly compliant to all standards
- > Available from multiple suppliers
- > Reusable and reloadable cards for a more sustainable ticketing
- > CNA end-to-end certification process for manufacturers
- > Certified CLAP cards already available
- > An immediate answer to quickly address occasional users
- > Perfectly adapted to ABT schemes, highly secure authentication.

### / TECHNICAL FEATURES

- > ISO/IEC 14443 and CEN/TS 16794
- > ISO/IEC 7816-4
- > Calypso Secure Session with Triple DES hierarchical keys
- > Common criteria EL4+ hardware platform
- > 2 files structures with 2 contracts
- > 4 counters, cyclic log of events and other applicative data
- > Tailored for any data model (e.g. EN 1545 transport data structures)

### / USE CASES

- > **Your Ticketing System is already based on Calypso**  
Complete your range of cards, from annual and monthly pass to occasional travellers' tickets with minor modification on your equipment software.
- > **You intend to build an affordable contactless ticketing system**  
Use CLAP to benefit from Calypso high security and performance, thanks to a full adherence to standards and low-cost cards.
- > **You want to introduce an Account Based Ticketing scheme**  
CLAP offers the required strong authentication with a secure token, on a low cost card.

CLAP is the perfect solution for the anonymous user. Unlike the magnetic ticket it makes use of contactless as the Calypso card, thus lowering maintenance costs, and unlike the memory contactless ticket, being a subset of Calypso rev3.1, it allows for greater and quicker integration with existing Calypso card systems. Its level of security and durability allows networks to approach anonymous users like never before.

---

CALYPSO NETWORKS ASSOCIATION

✉ [contact@calypsonet-asso.org](mailto:contact@calypsonet-asso.org)

☎ + 33 1 85 73 49 83

🌐 [www.calypsonet-asso.org](http://www.calypsonet-asso.org)

**Calypso**  
Networks Association