Calypso

Networks Association

Calypso Applet Management
License and Services

INNOVATRON

1. License Policy General Presentation

Innovatron is at the origin of the developments of the smart card technology since 1974.

Since 1992, a major program of Research & Development in partnership with the RATP and the SNCF has resulted in Innovatron extending the application of the Smart Card technology, enabling its use through a contactless communication interface, particularly suitable for public transport applications.

During this program, Innovatron developed proprietary technology, the subject of many patent applications protecting the investments made, and used in particular in the European remote ticketing projects, called *Icare* and *Calypso*.

The *Calypso technology* and the international standard *ISO/IEC 14443 B* directly result from the research done by Innovatron.

Innovatron favors a wide deployment of these technologies and offers licenses of various kinds suiting the situations of different licensees, under fair and non-discriminatory conditions.

If you are a user, you might find the right solution for your needs by contacting other Calypso users. In this case, you may contact the Calypso Networks Association (http://www.calypsonet.org).

3. The Calypso License

The Calypso License allow the manufacturing of Calypso cards, and the development of Calypso portable objects software.

The license is accessible to any company, under fair and non-discriminatory conditions, and includes access to the Calypso specifications and Calypso brand usage. Indicative license conditions are given in the following pages.
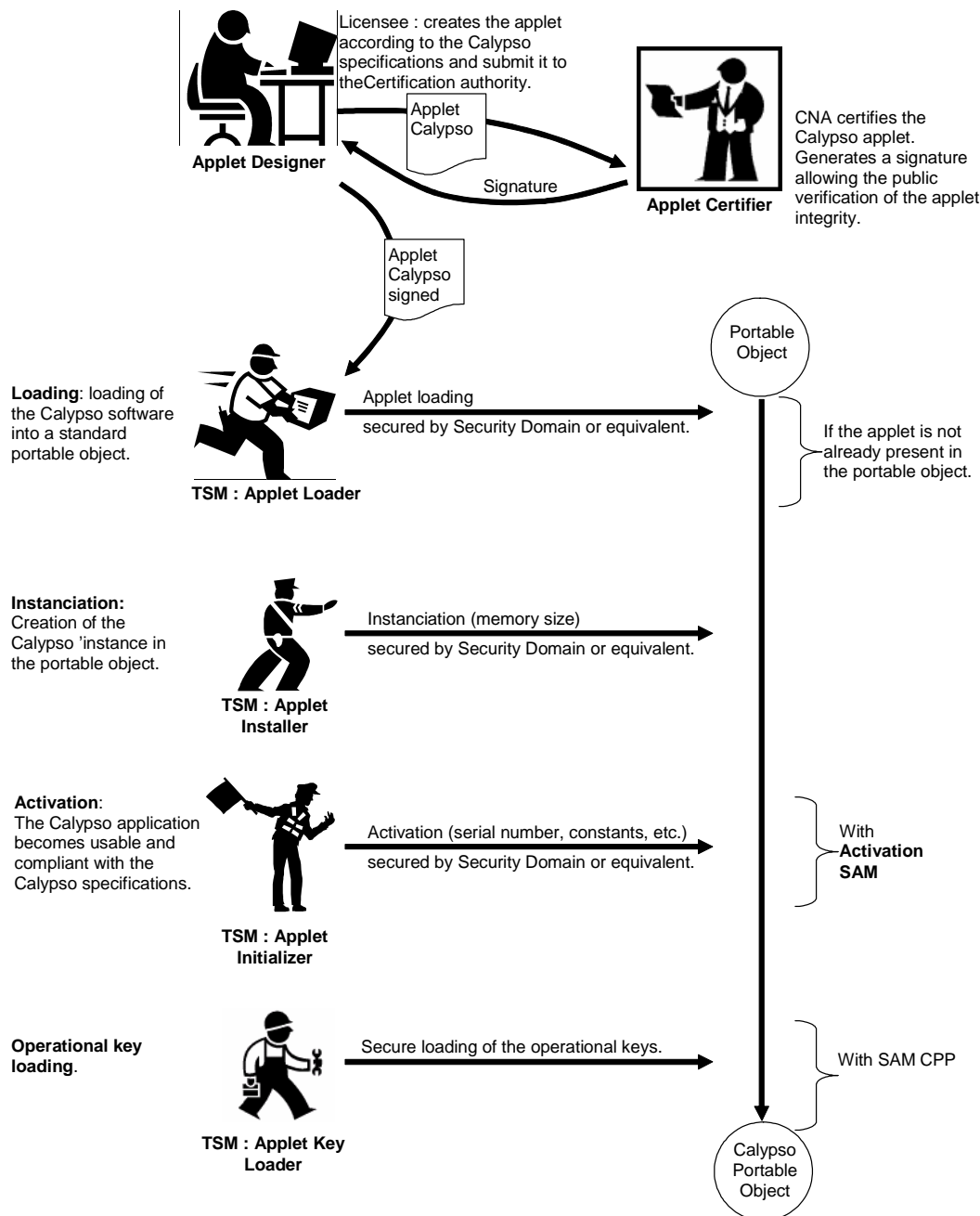
Integrators and users of cards manufactured under license do not need to take a license nor pay any fee for them. For example a system integrator manufacturing terminals, and selling cards bought to a Calypso card manufacturer, may freely manufacture and sell terminals and cards.

Anyone may access the Calypso specifications. The Calypso specifications describe in detail the Calypso transaction between a Calypso contactless reader and a Calypso microprocessor card. They include the Calypso card, SAM and Activation Module specifications.

4. Calypso Applets

A Calypso applet is a software component loaded and installed into a secure portable object to add the Calypso application to the portable object, for example a Java application loaded into a secure Javacard platform. This operation may be done during manufacturing or during the portable object life, as illustrated on the next page.

Loading / Installation	*By*	*Comments*	*Royalties*
During manufacturing	Manufacturer	The applet is installed by the manufacturer before the delivery of the portable objects. The manufacturer must be a Calypso Portable Objects licensee.	Paid by manufacturer. Product is free of rights after manufacturing.
After manufacturing	Trusted Third Party	The Calypso applet is remotely and securely activated in the portable object (loading it first if necessary). The transit network keys are securely loaded into the portable object during the installation process, or later.	Paid during activation by using the prepaid Calypso Activation Module. Product is then free of rights.

Calypso Applet Loading and Activation

5. License for Applet Developers

The license allows the use of the Calypso specifications and brand to develop Calypso compliant software and to authorize its use with the Calypso Activation Module.

The licensee has also the possibility to deliver portable objects with the applet already installed (for example for prototypes delivery). In this case, an Activation Module must be used (an Activation Module for 1000 installations is included with the license).

The licensee has the possibility of terminating the contract at any time.

The financial conditions of the contract include an initial payment.

"Applicative Patents for Applet Development"

License initial payment	10.000 €

6. Calypso Activation Module

The Calypso Activation Module allows application owners or third parties to activate a Calypso applet in portable objects.

The Calypso Activation Module includes:
• The means to securely activate the Calypso application.
• The generation of a unique Calypso serial number, which is required for each Calypso portable object application.
• The Calypso license fee.

The Activation Module is configured to allow a limited number of installations, prepaid when acquiring the Module.

The financial conditions include the account opening cost, a cost per delivery and a fee per activation.

"Calypso Activation Module"

Item	Cost
Module Cost	300 euros
Fee per activation	0.045 euro

Samples of Activation Modules may be acquired from Calypso Networks Association site: https://calypsonet.org

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For more information, please contact us:

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