Key deliverables that make your open-source strategy a success:

- Mature methodology
- Recognized technical and legal expertise
- Guaranteed long-term support

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Open-source software provides real-world solutions to your real-world needs:

- End-to-end control over your information system and its security.
- Reduced information system costs.
- Technical independence from software publishers.
- Repositioning of integration and interoperability as key concepts of your information system development strategy.

While open-source software provides effective responses to all these issues, a number of challenges must be addressed:

- Reliability and performance – How can you make sure the building block used really meets your needs?
- Long-term sustainability – What guarantees do you have that the software will be available and maintained in the long term?
- Costs – How can development and maintenance efforts be shared?
- Licences – How can you resolve legal issues related to the integration of open-source building blocks in an existing information system?

Implementing open-source software requires expertise in designing complex systems that are both secure and reliable, as well as the capacity to provide long-term maintenance and support for those systems and a commitment to the recognized standards that underwrite the sustainability of an application. Managing your relationships with strategic partners who can provide those skills and capabilities is therefore a vital part of any open-source software strategy.

As a strategic partner for open-source projects, Thales offers a full range of solutions to support your open-source systems today and in the future.

- A strong commitment to R&D and active participation in the standardization process.
- A blended source approach to integrate open-source technologies with legacy systems.
- Proven methods and in-depth knowledge of our customers’ businesses.
- Technical and legal support and full maintenance services.

Europe: fertile ground for open-source growth

The market for open-source software is expected to grow quickly over the next three years, as technologies mature and tools and methods achieve an industrial dimension. The average annual growth rate for open-source business in Europe is expected to reach 47%* between now and 2010. Underpinning this strong upward trend is the adoption of the open-source model in a growing number of major fields, including development of critical systems and management applications.

* Source: PAC, 2006
THE PEDIGREE OF A MAJOR PLAYER

Open-source software is a strategic development objective for Thales. We are taking part in numerous open-source initiatives to gain a head start on technological choices and investments and consolidate our position as a leading expert in this field.

Thales is taking part in several European programmes and projects to develop and certify open-source building blocks.

- **NESSI** (Networked European Software & Services Initiative): European technology platform chaired by Thales, with 22 major companies, SMEs and university research institutes committed to developing open software and services architectures based on open-source software for enterprises, administrations and citizens.

- **ARTEMIS** (Advanced Research and Technology in Embedded Intelligence and Systems): European platform dedicated to embedded computing systems. Thales is a member of Artemis’s Executive Board.

- **QUALIPSO** (Quality Platform for Open Source Software): major European programme bringing together government organisations and enterprises to address recurrent issues related to open-source software solutions: licences, collaborative developments, interoperability and technical support.

Enhancing R&D capabilities on a continuing basis.

- **ThereSIS** (Thales European Research Centre for eGov and Secure Information Systems): Thales’ industrial research laboratory is dedicated to complex systems engineering projects making extensive use of open-source software. The laboratory coordinates all Thales research on secure information systems for civil administrations.

- **PoSSiS** (Process Oriented Services Secured Information System): engineering infrastructure and methodology for complex information systems, particularly those based on open-source software. This generic architecture, along with its integrated development environment and industrialized production processes is now used by 400 architects and developers.

- **Thalix**: Thales has developed its own Linux distribution to support the development of air traffic control systems.

- **Cardamon**: middleware technology distributed as open-source software, used to implement critical systems, particularly for air traffic control and naval systems.
Proven results on major projects.

- **French finance ministry** – GAIA user relationship management system: development of a system to manage exchanges between French taxpayers and the tax authorities, a 100% open-source solution that handles more traffic than any other system of its type in Europe.

- **Eurocontrol** – SASS-C project: development of standardized tools recognized by air traffic control centres to evaluate the overall performance of a control/tracking system, as well as the technical performance levels of the various system components.

- **CNES**: development of the image ground segment and processing chains for the Pleiades earth observation satellite system. To guarantee performance and optimize total cost of ownership, Thales developed a solution based exclusively on open-source software.

- **French Navy** – DROP (Data Resources Operating Portal): logistics information system for fleet tracking.

- **French defence procurement agency** – Milos project: development of a command and control information system (CCIS) based entirely on open-source software.

- **Toyota** – DSP (Dealer Service Portal) programme to improve Toyota France’s relationship with its customers and dealerships: a scalable communication system provides a single interface for accessing business process applications and can be reconfigured and upgraded in line with future requirements.

Application Management Services and support for open-source software.

As a software developer, solutions provider and IT user, Thales is in an ideal position to develop application management and support services for open-source software.

- **French justice ministry**: support, including preventive, corrective and proactive maintenance and monitoring of accounting applications and case follow-up applications.

- **Airbus**: Application Maintenance Services for three PDM/WindchillThales – Thalix applications. Distribution maintenance, configuration management, training and support for users of the Thalix platform, Thales’ benchmark offering in the field of air traffic control systems.

- **Thales** – DROP (Data Resources Operating Portal): technical study, design, implementation, testing and corrective maintenance for the French Navy’s paperless spare parts procurement system.
THALES AND OPEN-SOURCE SOFTWARE: a long-term commitment

- Company-wide methodology and mindset

As a designer of software-intensive equipment and a systems integrator, Thales frequently needs to incorporate third-party software or code that has been developed in-house. The company draws on many years of experience in software technology integration, and has created a centre of excellence to leverage that experience for open-source software (OSS) implementation.

- Thales has implemented open-source building blocks and standards both internally and for customers since 1999. Open-source software is now a strategic development objective for the company, and a laboratory dedicated to open-source developments has now been set up within the organisation.

- Thales employs 9,000 highly qualified software engineers across the world, including a network of several hundred open-source experts coordinated by the OSS centre of excellence.

- Thales has the capacity to set up hybrid, “blended source” models: more than 400 certified open-source building blocks have been integrated in systems that are already operational or are currently being deployed.

The Thales response to open-source software is a company-wide methodology and mindset. This consistent approach to the world of open-source software translates into tangible benefits for our customers and is an integral part of our added value in management of its environments, in response to:

- **Criticality**: in terms of safety and security.
- **Reliability**: assurance through the use of software development processes compatible with international Quality of Service (QoS) standards.
- **Complexity**: with hybrid models combining proprietary and open-source software as well as structured configuration and version management.
- **Long-term sustainability**: with proven experience on long-term programmes with maintenance contracts spanning several decades in the defence and aerospace sectors.

- **Active involvement in the open-source community and on European programmes.**

Thales has forged solid relationships with key technology partners and organizations in the open-source ecosystem to meet its own needs and those of its customers. Through this network of partners, Thales is able to share development costs and related risks and has emerged as a major player in the software standardization communities. This direct involvement in the thought leadership process is also the key to the success of the hybrid development model that offers the users the best of all worlds.

- Active involvement in the open-source community (participation in the Eclipse Web Tools Platform and I-MDD projects, APRIL, ODF Alliance, OpenEmbeDD, member of the board of Object Web, etc.).
- Strategic partners (Object Web, Apache, Eclipse, Redhat, etc.).
- Role in defining industry standards endorsed by Thales’ membership of the Board of Directors of OMG (Object Management Group)
- Active participation in major R&D programmes in Europe (Presidency of NESSI – Networked European Software & Services Initiative) and in Asia.
- Dedicated laboratories and centres of excellence showcasing Thales’ open-source expertise (ThereSIS – Thales European Research Centre for eGov and Secure Information Systems).

Thales’ involvement in the open-source software community translates into a company-wide capacity for integration and a guarantee of high-quality support, long-term sustainability and compliance with all recognized industry standards.
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