World leader for mission-critical information Systems

> Three core businesses

- Aerospace
- Defence
- Security

More than €12bn annual revenues

> A Worldwide Group

- 68,000 employees worldwide
- Presence in 50 countries

Pro forma 2006 figures
Three core businesses

Aerospace: 25%
Security: 25%
Defence: 50%

On 2006 pro forma basis
Who Are We?

Security Domain

THALES
Security division
(excluding Components & Sub-Systems)

THALES
Services Division

THALES
Critical components

Alcatel-Lucent
Rail Signalling

Alcatel-Lucent
Safety & Security Command & Control

THALES

Critical components

Who Are We?
Establish Thales as a world leader in Mission Critical Solutions & Services

€ 3.2bn sales* - 18,000 employees

*actual Thales plus former Alcatel-Lucent 2006 revenues
Strategic framework
What are the vertical markets we want to address?

Critical Infrastructure Control & Protection

- Ground Transportation
- Energy, Airports,…
- Government
- Enterprise(*)

(*) Enterprise: aerospace companies (strong safety requirements), advanced technologies companies similar to Thales (designing complex sensitive products) and companies highly dependent on critical information system
Strategic framework
What is our positioning?

Mission critical solutions

Security & safety

Security
To protect people, information, goods and assets against any deliberate malicious attack

Safety
In the presence of accidental events
Systems / products ability to provide service without occurrence of catastrophic failures with consequence on:
- Users
- Infrastructure operators
- Environment
- Infrastructure

A solution / service always under control and with no downtime
Strategic framework

What are our key differentiators?

- Ground Transportation
- Energy, Airports,…
- Government
- Enterprise

Mission critical solutions

Security & safety

Key differentiators

Key enabling technologies / competences

System integration capabilities
What are our key differentiators?

We are a system integrator with in-house Key Enabling Technologies / Competences

- IT security
- Digital Identity
- Electronic Physical security
- Supervision
- Vertical markets customers’ applications
- Sensors
- Synthetic environment

Mission critical solutions

Key differentiators

Security & safety

Strategic framework
Strategic framework

What are our key differentiators?

Mission critical solutions

Ground Transportation
Energy, Airports,...
Government
Enterprise

Security & safety

Key enabling technologies / competences

System integration capabilities

- Defence background
  *Mastering complex and sensitive projects*
  *Used to complex / hostile environments*

- Strong system & network design competences

- International footprint

- Integration Centres
Strategic framework

What are our key differentiators?

Thales close to its customers
Financial Analyst meeting - Nov 2007

Future Integration Centres

Portugal
Spain
Italy
UK
Mexico
Dubai
Australia

Strategic framework
Integration centres

Already implemented in 9 countries + more to come
Strategic framework

Three business models

Ground Transportation
Energy, Airports, ...
Government
Enterprise

Mission critical solutions

Security & safety

Systems
Products
Services
Sales € 3.2bn (*)

Growth engine
Slow sales outflow

Profitability engine
Quick sales outflow

Steady growth
Recurrent revenues
Cash generation

Maintaining a balanced portfolio

Systems (**) 45%
Products (***) 30%
Services 25%

(*) actual Thales plus former Alcatel-Lucent 2006 revenues
(**) including dedicating in-house design products that we sell through system contracts
(***) including critical components
Strategic framework

What we sell -> Mission Critical Systems

Solutions operators can TRUST to operate their infrastructure
LINK & BULK Encryptors

IP Encryptors
High Grade Firewalls and Secured Gateways
Portable security

High grade, sensitive but unclassified, commercial

The most complete range of crypto products
Simulators and synthetic environment are Key Enabling Technologies for training services and safety
Products

Security
- Microwave Klystron for Linac X-ray generation
- High resolution 2D X-ray Detector

Space
- Linear Amplifier with Travelling Wave Tube
- Microwave Travelling wave tubes, radiation and conduction cooling, L to V bands

Defence
- Mini-travelling wave tube
- High efficiency travelling wave tube
- Travelling wave tube amplifier

Medical
- X-ray Image intensifiers
- Pixium Medical X-ray detectors, static and dynamic

Applications

(our customers’ equipment)

- Cargo inspection system
- Portable X-ray system
- Satellite payload
- Uplink satellite Station
- Terrestrial Radar
- Defence Coms
- Medical radiology equipment
- Digital radiography medical equipment
Strategic framework

What we sell -> Mission Critical Services

Outsourcing

- Business Process Outsourcing
- Application Management Services
- Infrastructure Management Services

Training

Maintenance

Services operators can TRUST

Committed to guaranteed results

Highly Secured Data Centre

Manageability

Scalability
More than **100 transport customers** worldwide

Over **6,000 employees** specialized in transportation activities

Providing mission-critical information systems to **main line rail, urban transport** and **road operators**
Ground Transportation
What are the markets we are addressing?

Types of End Customers

- Mass Transit Operators
- Mail Lines Railway Operators and Infrastructure owners

Types of projects / infrastructures

- Conventional metros, Driverless metros, Light Rail Trains, Tramways, Commuter/regional/intercity trains, Freight corridors, High speed trains
Ground transportation

Market size (Av 2006-2010), Thales target market and drivers

Rail/Metro Infrastructure Project

- Civil Works
- Mission-Critical Information Systems
  - Rail Signalling Systems
  - Integrated Communication & Supervision Systems
    - Supervision
    - Communication
    - Security
    - Passenger Information & Comfort
  - Integrated Fare Systems
  - Back-end Systems & outsourcing
- Rolling Stock
- Power Supply
- Services (parts, maintenance, ...)

We target a €10bn market
Market CAGR # 5%
We have 13% market share
Ground transportation
An attractive market for Thales

Profitable and growing market

High barriers to entry
- Very specialised skills – transport know how
- References are essential
- Complex projects to manage
- Security & safety requirements

Clear drivers
- Transport operators challenges
  - Reliability & predictability for passengers and freight
  - Safety and security
  - Attractiveness and seamlessness for passengers
- Signalling:
  - Main Line:
    - Deployment of ETCS across Europe
    - From conventional (relay) to electronic interlocking.
  - Urban Rail:
    - Metro refurbishment in big cities in Europe and USA.
    - Construction of new lines in Asia Pacific
    - Growing acceptance of CBTC (Radio)
Thales is well placed to continue to be successful

Strong differentiators

- The most complete offer on the market
- An offer completely independent from Rolling Stock
- The safety & security know how is a core competence of Thales
- Technological leadership
- Outstanding references portfolio
- Long term customer commitment
- Strong experience in leading projects as prime contractor
Leader in advanced signalling systems

- Leader in electronic interlocking with relevant references in 20 countries
- Leader in Main Line ETCS (European Train Control System)
- No.1 in Urban Rail CBTC (Communications Based Train Control)
- No.1 in electronic axle counters

Leader in integrated communication and supervision systems

- Unique provider of end-to-end systems

No.1 provider of integrated fare systems worldwide

- Unique provider of nationwide ticketing systems
Ground transportation

Our solutions portfolio

* ICSS: Integrated Control Supervision System
** IFS: Integrated Fare System
Thales provides integrated signalling solutions

Rail Signalling is mainly a project-driven business.
Each system is customized to local / customer requirements: signalling rules, safety standards, operational requirements.

Complete signalling systems
- System design, development, engineering, installation, test & validation and commissioning

Portfolio of advanced signalling solutions
- Train routing: electronic interlocking
- Train control: ATP/ATO*, ETCS Level 1 and L2 for Main Lines, CBTC systems for Urban Rail
- Field equipment: digital axle counters
- Rail Network Management

* ATP/ATO: Automatic Train Protection / Automatic Train Operation
Thales designs, supplies, installs, commissions and maintains integrated systems to meet the operational requirements of public transport networks.

**Supervision**
- Real-time events & equipment supervision
- Automatic train supervision
- Power supervision
- Communication, fixed equipment and security systems

**Communications (on board & on platform)**
- Ground to train communications
- Com backbone & public and private radio network

**Passenger Information & Comfort (on board & on platform)**
Thales designs and provides innovative solutions in view to make public and road transportation more efficient, convenient and secure.

- Complete range of equipment for vending, validating and controlling travel rights
- Contactless readers for access control
- Central processing systems suited for mono and multi modal transport
- Revenue clearing systems to deliver multi-operator interoperability
Ground transportation

New trend: integration of operation system with business system

Outsourcing

Maintenance & training

Product & Asset Life Cycle management

Back office services & applications

(i.e. yield/revenue management,...)
Security (on board & on platform)

- Video surveillance, recording and intelligent image analysis
- Access management and control, intrusion detection, fire detection
- Authentication of contractors working on transportation infrastructure
- Chemical Biological Radiological Nuclear detection & identification
- Cyber security
Ground Transportation: Zoom on Customers with videos
Critical Infrastructure: energy, airports,…

Mission critical solutions

Ground Transportation

Energy, Airports,…

Government

Enterprise

Security & safety
Critical Infrastructure – Zoom on Oil & Gas

What are the markets we are addressing?

Types of End Customers

• National Oil and Gas Companies
• Energy companies

Types of projects / infrastructures

• Upstream:
  • Production facilities (offshore & onshore)
• Midstream:
  • Pipelines
• Downstream:
  • Refineries,
  • LNG plant (Liquefied Natural Gas)
  • Petrochemical complex
What are the needs of our customers?

Control, Awareness & protection

Operations efficiency
- Supervision
- Communications

Security & safety
- Assets
- People
- Data
Critical Infrastructure – Zoom on Oil & Gas Infrastructure

Threats / Potential damage

Threats:
- Vandalism
- Theft (tapping)
- Terrorism / Piracy
- Accidental Damage
- Natural disaster
- Cyber Attack

Potential Damage:
- Loss of production (loss of revenues)
- Destruction of plant (fire)
- Environmental damage (release of toxic chemicals)
- Injury / loss of life (explosion)
‘Abqaiq Refinery’ Terrorist Attack

Description

- Terrorists with two cars loaded with explosives tried to penetrate and explode the world’s second largest oil facility.
- The two cars were stopped by security barriers and during an exchange of gunfire with security forces, the cars exploded outside the entrance.

Consequences

- Price per barrel increased by 2$/b on news of the attack.

- 25/02/06
- Location: Abqaiq Oil Refinery
Pipeline Terrorist Attack

**Description**

- Terrorists exploded simultaneously
  - Three Sections of an gas pipeline in July
  - Six Sections of an Oil and gas pipeline in September
- All attacks on Unmanned sites

**Consequences**

- Gas supply to private companies interrupted during more than 2 weeks
- Crude and Refined products Supply interrupted more than 2 weeks
- Many hundreds of MUSD losses
Critical Infrastructure – Zoom on Oil & Gas Infrastructure

What is our positioning?

Oil & Gas Infrastructure Project

Civil works

Plant / pipeline design & construction

Mission-Critical Information Systems

- Infrastructure security
- Integrated Communication & Supervision Systems
  - Supervision
  - Communication
  - Field Instrumentation & process automation

Power Supply

Thales: Mission-Critical Information Systems Integrator
We target a €3bn market
Market CAGR # 7%
We have started aggressively to address this market 2 years ago:
- In 2007, we have won projects that correspond to roughly 5% market share.
- Our target is to reach 15% market share (order intake) in 3 years.
Critical Infrastructure – Zoom on Oil & Gas Infrastructure

An attractive market for Thales

Profitable and growing market

- Strong demand from customers in MEA, Mexico, Russia

High barriers to entry

- Very specialised skills – oil & gas know how
- Complex projects to manage
- Safety requirements
- Security requirements

Clear drivers

- Oil & gas prices and demand are high and growing
- Need for increased Security
  - Terrorists attacking energy infrastructure, product theft…
- Need for increased Operational Efficiency
  - With decreasing O&G reserves and price increase, the operational process from extraction, transport, transformation and distribution must become more efficient
Critical Infrastructure – Zoom on Oil & Gas Infrastructure

Thales is well placed to be successful

Strong differentiators

- An offer completely independent from the field instrumentation and process automation equipment
- Multi-level (National, Regional, Local) integrated solution
- Security & safety expertise
- Strong experience in leading projects as prime contractor
- Long term customer commitment
Critical Infrastructure – Zoom on Oil & Gas Infrastructure

Our solutions portfolio

Security Command & Control Centre — a complete situation awareness
Understand, Analyse, Decide, Act
Electronic Physical Security Subsystems

Intrusion detection/perimeter protection
- Fences and detection systems
  (sensors, combination with video motion detection,…)

Video surveillance
- Cameras are petrochemical environment compliant
- Event driven intelligent video analysis

Access control
- Accreditation, authentication
- Personnel counting/tracking
Offshore: Security Hub

Application

- Oil field level (offshore platform and on-shore sites)
- Multi-sites monitoring from a single security HUB

Objectives

- Reporting of synthetic alarms/events to a central point
- Understand, analyse, decide, act: priorities management in front of multi-events
Offshore (above water) & onshore Surveillance

- Radars
- Long range cameras

Offshore Surveillance (under water)

- Acoustic Sensors

Dual use technologies (civil – defence)
Critical Infrastructure – Zoom on Oil & Gas Infrastructure

Our solutions portfolio – Key Enabling Technologies - pipeline SCADA

SCADA is a real time process supervisor ➔ a centralized view of the pipeline network

SCADA security

- Strong encryption of communication links between SCADA master control and field devices for protection of message integrity
Applications are used for tracking, recording and coordinating all product movements and process variations in pipelines and pumping/compressor stations.

Our Oil & Gas software suite includes the following functionality:

- Leak detection and location applications
- Batch tracking and management applications
- Scraper tracking (“pig systems”)
- Planning and scheduling
- Pressure Monitoring
Critical Infrastructure – Zoom on Oil & Gas Infrastructure

Our services portfolio

- **Optimise Operations Process**
  - SCADA / Applications
  - Maintenance & training

- **Optimise the Business Process: Enterprise efficiency**
  - Outsourcing
  - Product & Asset Lifecycle Management
  - Business applications

New trend: integration of operation system with business system
Energy Market: Zoom on Customers with videos
Government

Mission critical solutions

Ground Transportation

Energy, Airports,...

Government

Enterprise

Security & safety
Critical Infrastructure – Zoom on Government

What are the markets we are addressing?

Types of End Customers

- Ministry of Interior, Ministry of Defence
- Civil Administrations (health, finance, justice …)

Types of projects

Integrated Systems for Ministry Of Interior, Ministry of Defense

- Digital Identity Documents
- Public safety Command & Control Centres
- CBRN detection & identification

Trusted platforms for civil National Administrations

- e-government secured ICT solutions
- Health trusted platforms
- Finance trusted platforms
Critical Infrastructure – Zoom on Government

Threats / Potential damage

**Threats**
- Urban insecurity
- Natural and industrial disasters
- Cyber Attack
- Terrorism

**Potential Damage**
- Identity theft
- Government service interruption
- Injury / loss of life (non coordinated or inefficient emergency services)

People and data protection
Critical Infrastructure – Zoom on Government

Profitable growing market

High barriers to entry
- Very specialised skills – Government processes & organisation know how, Police, First responders, Digital Identity documents applications know how
- Complex projects to manage
- Security requirements

Clear Drivers
- E-government:
  - electronic exchanges G to G, G to B and G to C
  - transformation of administrations organisation
- Secure Digital identity:
  - One of the top priority of Homeland Security worldwide
  - Gateway to e-government infrastructure projects
- Public Safety Integrated system
  - 12 mega cities of more than 15 Million people in 2015 (for 6 in 2005 and 2 in 1980)
  - Increased need for integrated coordination, interoperable systems, decision-aid tools
Critical Infrastructure – Zoom on on Government

Thales is well placed to continue to be successful

Strong differentiators

Security expertise

- IT security
- Electronic Physical Security
- Security consulting
  - Intrusion tests, Hazards & Threat analysis, Resilience assessments, Crisis Management training
- Government processes & organisation know how

Strong experience in leading projects as prime contractor

Long term customer commitment
Mission

Provide added-value integrated systems, to coordinate prevention and management of incidents and emergencies between different safety & security forces

- Command & control centre – Joint forces coordination
- City CCTV
- Mobile Command Units
- Communications & Network infrastructures: Tetra, Wimax and interoperability offer
- Public infrastructures security
Critical Infrastructure – Zoom on Government

Our solutions portfolio – integrated public safety systems

Intelligence – Lawful interception, data Mining

Crisis Management – Forces coordination

Incident, Alarm Management – threat qualification

Resources Allocation

Communications

- CCTV
- Access Control
- Intrusion detection
- Fire detection
- First responders call
- Emergency call
- HAZMAT

Line of Sight
- Wimax
- Tetra

HF TRC 950

PR4G

THALES
Mission

Rely on our CBRN technological expertise developed for Defense markets to provide innovative and turn-key solutions

A comprehensive range of CBRN solutions for

- Detection,
- Identification
- Tactical command
- Crisis Management
Mission

Build & operate secured ICT infrastructures to transform relationship between public administrations and citizens

- E-gov ICT Integration
- ICT Security end-to-end solutions
- Managed Security Services
- Digital identity management
Critical Infrastructure – Zoom on Government

Our solutions portfolio – e-government → e-health
Mission

Design, operation and maintenance of secure ID systems: passports, national ID cards, residence permits, driving licences...

Digital identity document: a gateway to e-government services
Government: Zoom on Customers with videos
Security domain: 2006 figures*

- Total Revenues: €3.2bn
- Order Backlog at year end: €5bn
- Employees at year end: 18,000

*actual Thales plus former Alcatel-Lucent 2006 revenues
Total Headcount: 18,000

Year on year growth: 6%

Security domain: headcount by country

- France: 39%
- UK: 20%
- Germany: 11%
- Spain: 9%
- Rest of Europe: 7%
- Rest of the world: 5%
- North America: 6%
- Australia: 3%

A wide international base

Note: JV’s at 100%
Security domain: our 2007 priorities

- Integration
- Operational Excellence
- 2007 Financials
- Positioned for future GROWTH
A first step has been achieved through our new division organisation
- An organisation structured by capabilities, simpler and more homogeneous
- The behaviour of the leaders as a driver in the integration process

To build trust in our relationship with customers and partners coming from Alcatel-Lucent
Contracts transfer

Implement the 9 Integration Centres
- Sharing resources between systems SBLs to meet the growth challenge

Alignment of sales & operational processes

COMMON STORY (Strategy): Internal Communication
Future Integration Centres

Already implemented in 9 countries + more to come
Combining system integration capabilities

The right way for profitable growth

Already implemented in 9 countries + more to come

Security domain: our 2007 priorities

Integration centres
Security domain: our 2007 priorities

Integration centres

Mission

- Manage bids and deliver programmes
- Manage and optimise local resources (system integration and support functions)
- Host and coordinate locally-based sales teams
A generic offer in a specific domain that we promote systematically

(examples: signalling solution for people movers, offshore platform protection, integrated public safety solution for Police,...)

We tailor our Packaged Modular Solutions to customers’ needs but we avoid 100% « made to measure » solutions.
Security domain: our 2007 priorities

An innovation lab at the forefront of new technologies

Palaiseau innovation lab for E-gov and Secured solutions

Night surveillance

Multi-biometrics
Our common goal

Organic Revenue Growth

2006
€3.2bn *

2010
> €4bn

*actual Thales plus former Alcatel-Lucent 2006 revenues
Key priorities: 2008-2010

Manage profitable growth

- Stay focused (4 vertical market segments)
- Bid & program management resources
- Further development of Integration centres (next to come: Russia, Latin America, India)
- Quality, on time, on budget
- Continue to increase the added value of our solutions/services

Go-to-market

- Sales team spread across the different countries
- Business Partnership Management: the “Right consortium at the right time”
A team of professionals to deliver profitable growth

Olivier Houssin
EVP Thales
SVP Security Solutions & Services

Jean-Paul Lepeytre
SVP Thales

Jean-Pierre Forestier
VP, Managing Director
Rail Signalling

Jean-Louis Olié
VP, Managing Director
Transportation Systems

Alain Delecroix
VP, Managing Director
Security Systems

Jean-Louis Villoutreix
VP, Finance

Klaus Wustrack
VP, Communications

Franck Greverie
VP Strategy, Business
Development & Marketing
Delivering Security Solutions & Services

you can trust