SEAMLESS AERONAUTICAL NETWORKING THROUGH INTEGRATION OF DATA LINKS, RADIOS, AND ANTENNAS

Project information

SANDRA

Grant agreement ID: 233679

Project website

Status

Closed project

Start date

1 October 2009

End date

31 December 2013

Funded under:

FP7-TRANSPORT

Overall budget:

€ 23 941 949,98

EU contribution

€ 15 617 318

Coordinated by:

SELEX ES SPA

Italy

Objective

Air traffic in Europe is expected to double by 2025 according to the last forecast of Eurocontrol. Future passenger and freight fleets will bring better efficiency and improved environmental performance, and will allow people to benefit from the connections that only air transport can deliver. In this context, an integrated aircraft communication system is of paramount importance to improve efficiency and cost-effectiveness by ensuring flexibility, scalability, modularity and reconfigurability. The SANDRA project will design, implement and validate through in-flight trials an integrated aeronautical communications system based on an open architecture, a common set of interfaces and on well-proven industry standards. Integration will be addressed at four different levels, namely: • integration at service level, through a Service Oriented architectural approach • integration at network level through addressing interoperability to ensure transition • integration of existing radio technologies into an Integrated Modular Radio platform (Software Defined) • integration at antenna and RF level by a L/KU satellite array antenna prototype The integration of different service domains with heterogeneous requirements through a cost-effective and flexible avionic architecture is thus one of the main challenges addressed by SANDRA. In this light, the SANDRA communication system will represent a key enabler for meeting the high market demand for broadband passenger and enhanced cabin communication services. The SANDRA concept is fully inline with SESAR activity and future deployment plans ATM modernisation as well as with the final recommendations of Eurocontrol/FAA Future Communications Study. SANDRA addresses many of the enablers identified by SESAR for the medium and long term implementation packages, although the proposed integrated approach for the global provision of distributed services covers a much broader set of applications and service domains.
Field of Science

/social sciences/economics and business/business and management/commerce
/natural sciences/computer and information sciences/software
/social sciences/sociology/governance/public services
/social sciences/social and economic geography/transport
/engineering and technology/electrical engineering, electronic engineering, information engineering/information engineering/telecommunications/radio technology
/engineering and technology/mechanical engineering/vehicle engineering/aerospace engineering/aircraft

Programme(s)

FP7-TRANSPORT - Specific Programme "Cooperation": Transport (including Aeronautics)

Topic(s)

AAT.2008.4.4.2 - Integrated approach to network centric aircraft communications for global aircraft operations

Call for proposal

FP7-AAT-2008-RTD-1

See other projects for this call

Funding Scheme

CP-IP - Large-scale integrating project

Coordinator
### SELEX ES SPA

**Address**
Piazza Monte Grappa 4 00195 Roma
Italy

**Activity type**
Private for-profit entities (excluding Higher or Secondary Education Establishments)

**EU Contribution**
€ 748 697,31

**Website**

**Contact the organisation**

**Administrative Contact**
Paolo Di Michele (Mr.)

### SELEX ELSAG SPA

**Address**
Via Giacomo Puccini 2 16154 Genova

**Activity type**
Private for-profit entities (excluding Higher or Secondary Education Establishments)

**EU Contribution**
€ 1 470 302,69

**Website**

**Contact the organisation**

**Administrative Contact**
Paolo Di Michele (Mr.)

### DEUTSCHES ZENTRUM FUER LUFT - UND RAUMFAHRT EV

**Address**
Linder Hoehe 51147 Koeln

**Activity type**
Research Organisations

**EU Contribution**
€ 2 148 675

**Website**

**Contact the organisation**

**Administrative Contact**
Alexander Haidt (Mr.)
<table>
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<td>Italy</td>
<td>€ 301 500</td>
<td>Via Tiburtina 1231 00131 Roma</td>
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<td>Giuliano D'auria (Mr.)</td>
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<td>THALES ALENIA SPACE FRANCE SAS</td>
<td>France</td>
<td>€ 557 000</td>
<td>Avenue Jean Francois Champollion 26 31100 Toulouse</td>
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<td>Matthieu Dabin (Mr.)</td>
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<td>THALES AVIONICS LIMITED</td>
<td>United Kingdom</td>
<td>€ 376 954</td>
<td>Dashwood Lang Road Bourne Business Park Addlestone 2 Kt15 2nx Weybridge</td>
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<td>Paul Cooper (Mr.)</td>
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THALES AVS FRANCE SAS

France

Address
75-77 Avenue Marcel Dassault
33700 Merignac

Activity type
Private for-profit entities
(excluding Higher or Secondary Education Establishments)

Website
Contact the organisation

Administrative Contact
Jacques Sauzede (Mr.)

Thales research and Technology Ltd

United Kingdom

Address
Dashwood Lang Road, The Bourne Business Park 2
Kt15 2nx Addlestone

Activity type
Private for-profit entities
(excluding Higher or Secondary Education Establishments)

Website
Contact the organisation

Administrative Contact
David Blyth (Mr.)

AIRTEL ATN LIMITED

Ireland

Address
2 Harbour Square Crofton Road
A96d6r0 Dun Loaghaire Dublin

Activity type
Private for-profit entities
(excluding Higher or Secondary Education Establishments)

Website
Contact the organisation

Administrative Contact
Frank O’connor (Mr.)
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<td>INSTITUT NATIONAL DE RECHERCHE ENINFORMATIQUE ET AUTOMATIQUE</td>
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<td>Domaine De Voluceau, Rocquencourt, 78153 Le Chesnay Cedex</td>
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<td>STICHTING NATIONAAL LUCHT- EN RUIMTEVAARTLABORATORIUM</td>
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<td>Anthony Fokkerweg 2 1059cm Amsterdam</td>
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PARIS-LODRON-UNIVERSITAT SALZBURG

Address
Kapitelgasse 4-6
5020 Salzburg

Activity type
Higher or Secondary Education Establishments

EU Contribution
€ 415 115,42

Website
Contact the organisation

Administrative Contact
Carl-Herbert Rokitansky (Prof.)

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EY ADVISORY SPA

Address
Via Meravigli 14
20123 Milano

Activity type
Private for-profit entities (excluding Higher or Secondary Education Establishments)

Contact the organisation

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PARTECIPAZIONI TECNOLOGICHE SPA

Address
Salita Del Poggio Laurentino 7
00144 Roma

Activity type
Private for-profit entities (excluding Higher or Secondary Education Establishments)

Website
Contact the organisation

Administrative Contact
Alessandro Brachini (Mr.)