Airport Decision And MANagement NeTwork

Fact Sheet

Project Information

ADAMANT

Grant agreement ID: IST-2001-39117

Project closed

Start date
1 July 2002

End date
30 April 2005

Funded under
Programme for research, technological development and demonstration on a "User-friendly information society, 1998-2002"

Total cost
€ 4 208 328,00

EU contribution
€ 2 349 822,00

Coordinated by
QUEEN MARY AND WESTFIELD COLLEGE, UNIVERSITY OF LONDON
United Kingdom

Objective

The overall objective of ADAMANT is to provide a wireless-based intelligent communication and decision support system for transport and travellers. The approach is generic covering any mode of transport (e.g. rail, road and air), although within the project it will be limited to airports (as the fihot spotsfl that are naturally generated there provide some of the most difficult challenges) and journeys to airports. The system will be capable of handling (adequately operating under) civilian emergency or crises situations. As a matter of fact its benefits will be more clearly

shown under such circumstances. However, also normal operation under normal conditions will also be considered. Specifically, to be economic, a system to be used in an emergency has to be a system that is used for normal civilian use at other times, but gives pre-emptive priority to those dealing with an emergency.

Objectives:
- To provide an intelligent, personalised, location-based information and decision support system for travellers and airport services. This offers a scalable anticipatory environment that can take autonomous action to ensure that the travellers' journey is completed in line with their intentions and wishes, under normal conditions, and with the least possible impact, in case of emergency conditions. It also maximises the business opportunities for the airport;
- To provide management of the communication resources serving the particular location or route, under normal and emergency conditions;
- To create roaming/location-sensitive SLA management framework that adapts customer SLAs to factors such as location inside an airport and to comply with policies set by the service provider e.g. to manage crisis situations.

Work description:
1) Intelligent decision support system is interpreted as being the collection, intelligent sorting and communicating of information for making decisions (as far as possible autonomously) to: - make the passengers' journey as enjoyable and smooth-running as possible, thereby maximising profits and distinguishing the airport from other choices - support the day-to-day running of the airport - limit the impact resulting from emergency situations;
2) Management of Resources: In order to provide adequate performance, the underlying infrastructure must be managed to ensure that sufficient bandwidth is available for the services to operate. Since this is a wireless system, there are inherent limits on wireless spectrum and dynamic resource management needs to ensure that QoS service level agreements are met, and that priority traffic is always handled. Networks that may be used include terrestrial mobile (GSM/GPRS and 3G), in-building wireless networks and TETRA;
3) SLA Management Framework: As wireless network users travel and move through an airport, they are roaming through the network and the SLA management provided to these roaming users should be made sensitive to the local conditions. The provider will be able to define policies to prioritise the allocation of resources to most critical services and customers, to deliver the best possible service levels based on combination of SLA agreed with the customers and current conditions of the network and application infrastructure within the airport system.

Milestones:
- Intelligent agent architecture for decision support system (DSS)- Business models for agent interaction to maximise benefit to actors- Decision support system that can be trailed in an airport environment- Distributed resource management system to

underpin the DSS.

Fields of science (EuroSciVoc)

natural sciences > computer and information sciences > **artificial intelligence**

social sciences > economics and business > business and management > **business models**

Programme(s)

FP5-IST - Programme for research, technological development and demonstration on a "User-friendly information society, 1998-2002"

Topic(s)

2002-5.1.14 - CPA14: Mobile applications and services

Call for proposal

Data not available

Funding Scheme

CSC - Cost-sharing contracts

Coordinator

QUEEN MARY AND WESTFIELD COLLEGE, UNIVERSITY OF LONDON

EU contribution

No data

Total cost

No data

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Greece

EU contribution

No data

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Total cost

No data

INSTITUTE OF COMMUNICATION AND COMPUTER SYSTEMS

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EU contribution

No data

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Total cost

No data

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EU contribution

No data

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Total cost

No data

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EU contribution

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Total cost

No data

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