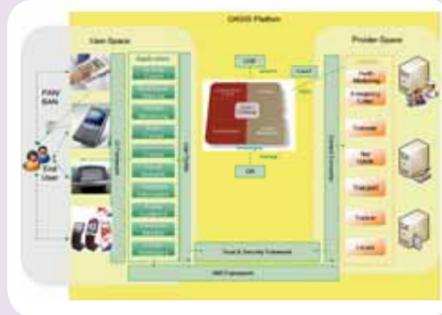


SYSTEM ARCHITECTURE

OASIS provides an open AAL Reference Architecture and platform which aim to revolutionise the interoperability, quality, breadth and usability of services for all daily activities of older people. The interoperability between the different applications and services is achieved through ontologies and semantic service descriptions that facilitate a cross-domain integration of applications, services, and content.



The OASIS Reference Architecture constitutes the COF (Common Ontology Framework), the CCM (Content Connector Module), the CAAT (Content Anchoring and Alignment Tool), and the Aml (Ambient Intelligent) Framework. The CCM's role is to seamlessly integrate and align the incoming web services with respect to the OASIS hyper-ontology concepts. The CAAT allows service providers to register their services within the OASIS platform, using advanced classification techniques. As soon as a service is aligned, it can be invoked by the invocation mechanism provided by Aml. The OASIS Platform provides a reference implementation of the OASIS Reference Architecture.

THE OASIS CONSORTIUM

The OASIS Consortium is composed of 31 Partners from 11 countries (Austria, Belgium, China, Germany, Greece, Italy, Mexico, Romania, Spain, and United Kingdom). Large industries (7), SMEs (6), Universities (5), Research Centers (8), Non-Profit Organisations (3), Public Organisation (1) and Healthcare Center (1) are all represented.

Project Coordinator:

> **Silvio Bonfiglio**, Philips FIMI
Email: silvio.bonfiglio@barco.com

Project Coordinator:

> **Evangelos Bekiaris**, CERTH HIT
Email: abek@certh.gr

External Contact Point:

> **Dagmar Röller**, POLIS
droeller@polisnetwork.eu

OASIS Twitter page:

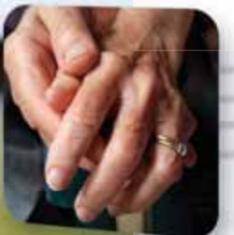
http://twitter.com/oasis_proj

For further information, please visit www.oasis-project.eu or contact info@oasis-project.eu



Project name: Open architecture for Accessible Services Integration and Standardisation
Acronym: OASIS
Grant Agreement: # 215754
Strategic Objective: ICT and Ageing
Length: 4 years (1 January 2008 – 31 December 2011)

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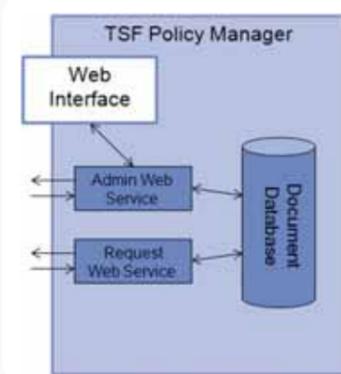


SECURITY PLATFORM

The Trust and Security Framework (TSF) is one of the core subsystems of the OASIS architecture. It is responsible for performing user registration, authentication and profile management, including privacy management through the security module, using central and/or federated identity management functionalities.

Each OASIS component that may require TSF Services must communicate with the TSF message handler. The message handler is the only external interface of the TSF, made available through web service contracts that are published through the message handler.

Part of the TSF is the profile manager, which allows users to manage accessibility settings on their profile, and allows OASIS applications to share profile information in order to provide seamless functionality across different contexts. The profile manager ensures that the users' sensitive and private information is self-managed, well guarded and only shared when necessary.

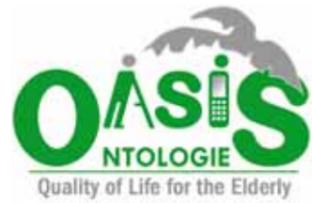


Applications for developers



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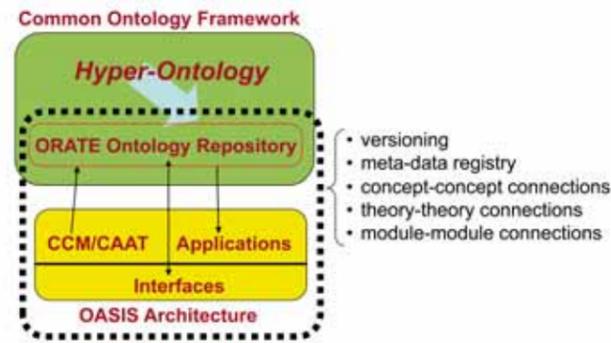
OASIS IN BRIEF

OASIS is a large scale European Integrated Project with aim to develop an open and innovative reference architecture, based upon ontologies and semantics services, that will allow plug and play and cost-effective interconnection of existing and newly developed services in all domains required for the independent and autonomous living of older people and their enhanced quality of life.



OASIS APPLICATIONS FOR DEVELOPERS

A COMMON ONTOLOGICAL FRAMEWORK



The OASIS Common Ontological Framework (COF) defines a formal specification for ontology modules, a methodology and best practice for their construction, and a repository for their storage. The methodology guides the development of a hyper-ontology bringing together heterogeneous ontology modules into one connected ontology, and the repository facilitates the storage, the access, and the maintenance of such a hyper-ontology.

OASIS APPLICATIONS FOR DEVELOPERS

ACCESSIBLE AND SELF-ADAPTED USER INTERACTION

User Interface Adaptation provides a way to achieve personalised accessibility and usability of user interfaces. Despite its recognised and proven validity, its wider adoption and uptake is still limited. One of the obstacles is the complexity inherent in designing such interfaces, and the requirement to radically revise current user interface design practice to account for:

1. the alternative designs required for adaptation;
2. the parameters needed to drive adaptations;
3. the logic of adaptation at run-time.

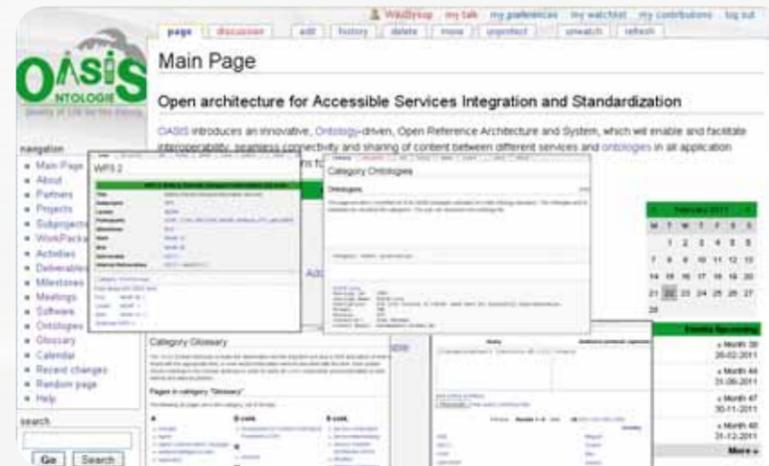
OASIS introduces a tool-based support strategy for user interface adaptation development on two levels. This support strategy is based on:

- an adaptation development toolkit and related widget library which directly embeds lexical level adaptations into common interactive widgets;
- embedding such a library in a common integrated development environment, thus allowing designers to define and view alternative adaptations at design time, and create adaptable user interfaces through traditional prototyping.

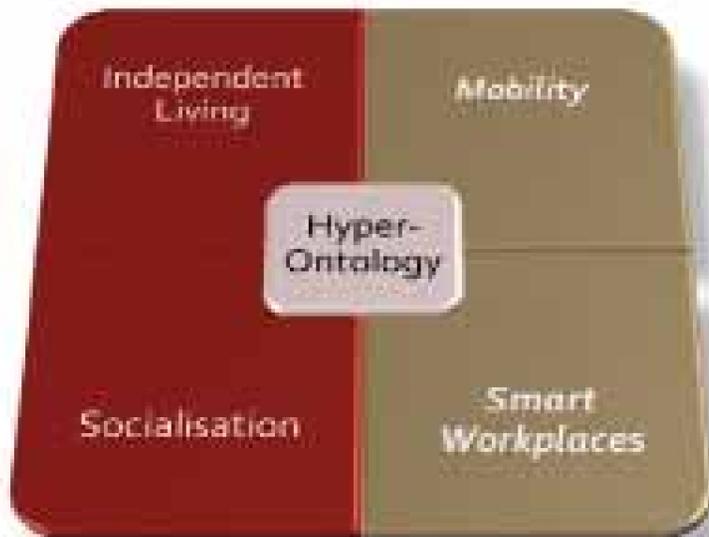
This approach is claimed to be the first and is so far unique in supporting rapid prototyping of adaptable user interfaces. The approach minimises the divergence between typical development practices and user interface adaptation development.



ONTOLOGY MANAGEMENT TOOLS AND INTERFACES



The main objective of the OASIS Ontology Management Tool is to make the open source software developed within the project available in a "wiki" framework, enabling timely exploitation of the OASIS results. It also serves as a tool for updating and maintaining the ontologies that are uploaded to the Ontology Repository (ORATE). The tool supports download and upload of ontologies to the ORATE, semantic queries, access to software tool development done within the project, as well as access to project documents and content management.



AMI FRAMEWORK AND AGENTS

The Ambient Intelligent (AmI) Framework is an agent-based platform, part of the OASIS middleware. Upon specific user requests, it enables service invocation through a software infrastructure of intelligent agents. This results in a seamless interoperability between different web services – from the same or different ontological domains – in order to select the most appropriate services for older people's needs.

