ProSEco - Collaborative Environment for Eco-Design of Product-Services and Production Processes Integrating Highly Personalised Innovative Functions

ProSEco Deployment Platform & Service Composition Engineering Tool contact person

Prof. José Barata

UNINOVA – Instituto de Desenvolvimento de Novas Tecnologias
Campus da Caparica, Quinta da Torre
2829-516 Caparica
jab@uninova.pt
Tel. +351 21 294 85 27
Fax: +351 21 295 77 86 / +351 21 294 12 53

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ProSEco Deployment Solution

- Deployment Platform
  - Deployer
  - Service Registry
  - Service Broker
- Service Composition Tool

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This solution is developed in the scope of ProSEco project, and is one of the key solutions to support the design and development of new Product Extension Services (PES).

What's the ProSEco Deployment Solution?

This solution combines several components inside the Deployment Platform that provide the coordinated usage and management of resources (core/application specific Services) in order to perform the execution of the designed PESs. The Composition Tool allows the specification of runtime parameters and connection between the Development and the Deployment Environments.

Deployer

This component is used to doply core/application specific services – that have been developed following the ProSEco standard – within the ProSEco system in order to be used for the design of a Product Extension Services (PES).

Service Registry

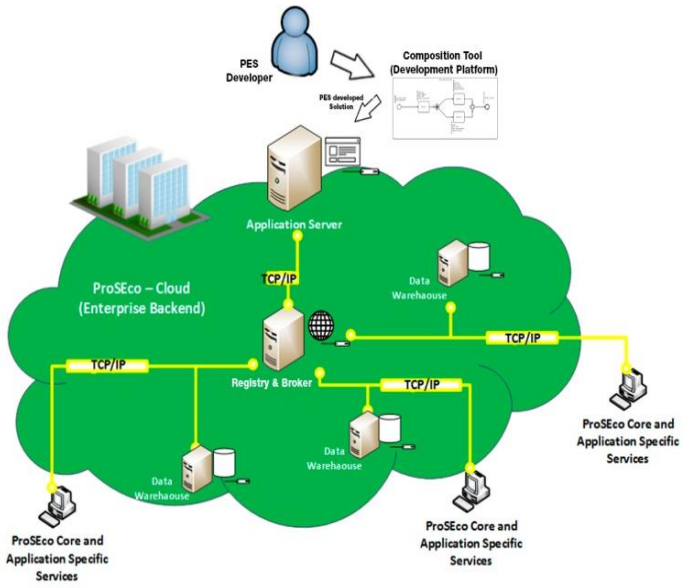
The Service Registry serves as a database of the deployed services inside the Deployment Platform. In order to execute any developed PES, the services launched by the Deployer need to be registered, making them available to be discovered and used during the runtime execution.

Service Broker

This component uses an agent-based engine for resource allocation and management over the execution of the deployed PESs. As a service itself, it sets the entry point to the Deployment Platform from the user point of view, i.e. to allow users to deploy new designed PESs. Thus, the Broker is designed to interpret the PES specifications defined by the PES designer. Among other tasks, the Broker needs to query from the Service Registry to find available services, proceed to the correspondent configuration of the services according to the configuration files included in the PES Solution regarding the Data Flows between services.

Service Composition Tool

This engineering tool supports the PES designer – at the final stage of PES development – to specify the runtime data exchange and time definitions between the enclosed services of the PES. It is the glue between the Development and Deployment platforms by enabling the communication of a designed PES (configurations, service parameters, runtime parameters, ...) to the Deployment Platform, through the Service Broker.



CHARACTERISTICS OF THE SOLUTION

Deployment Platform:

- SOA
- Agent-based programming

Composition Tool:

- Easy-to-use Graphical Interface
- BPMN-based notation

This software solution supports all the resources for executing PESs according to the designer specifications, enabling a full observation of the runtime process and also the possibility for developers to integrate new solutions.