PaaSport Marketplace - First Release

The main outcome of the EU-funded PaaSport Project is a thin, non-intrusive broker that mediates between PaaS offerings and PaaS users and serves as a marketplace of PaaS offerings. This, the PaaSport Marketplace, allows different PaaS providers to advertise their cloud offerings while it enables developers to discover the PaaS offering that best meets their needs, while they benefit from a PaaS abstraction layer in order to avoid the vendor lock-in problem.

Although the final PaaSport Marketplace is not going to be released until 2016, this first release is a milestone showing the progress on all levels of the project.

PaaSport Marketplace relies on open standards and introduces a scalable, reusable, modular, extendable and transferable approach for facilitating the deployment and execution of resource intensive business services on top of semantically-enhanced Cloud PaaS offerings. It is accessible through the usage of a responsive web interface that allows both PaaS providers and application developers to use it without further installations.

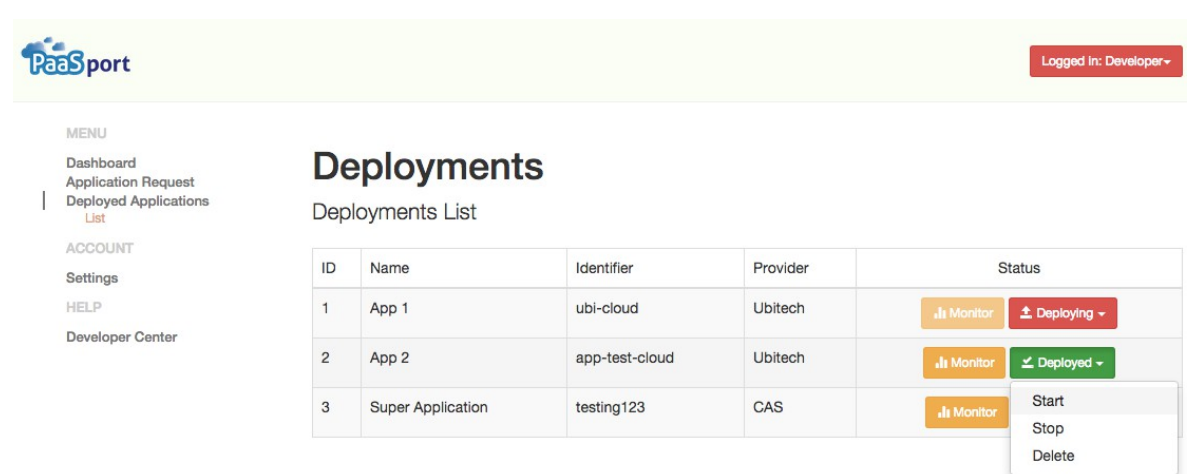PaaSport Marketplace consists of the following five layers:

1. **The PaaSport Semantic Models** that serve as the conceptual and modelling pillars of the marketplace infrastructure, for the annotation of the registered PaaS offerings and the deployed applications profiles;
2. **The PaaS Offering Recommendation Layer** that implements the core functionalities offered by the PaaSport Marketplace Infrastructure, such as PaaS offering discovery, recommendation and rating;
3. **The Monitoring and SLA Enforcement Layer** that realizes the monitoring of the deployed business applications and the corresponding Service Level Agreement;
4. **The Persistency, Execution and Coordination Layer** that puts in place the technical infrastructure, e.g. repositories, on top of which the PaaSport marketplace is built. It also includes the PaaSport Unified PaaS API that is a common API exploited in order to uniformly interact with the heterogeneous PaaS offerings.
5. **The Adaptive Front-ends** that support seamless interaction between the users and the PaaSport functionalities, through a set of configurable utilities that are adapted to the user's context.

In the first release of PaaSport Marketplace, developers can use PaaSport and create an application profile in order to find the best matching PaaS providers. In this regard, PaaSport

marketplace allows developers to select – according to their needs – the required services of the application they would like to deploy. Each selected service contains a set of service parameters which can then be defined and customized based on the developer's needs.

After a developer enters the requirements of the application, a matchmaking request is submitted. The result of the request is a sorted list of PaaS providers matching the needs of the developer.

After successful matchmaking, the developer can continue with the deployment of the application through PaaSport Marketplace. This is done by adding the selected PaaS user credentials. The deployed application is then displayed in PaaSport Marketplace, along with user interfaces allowing management of the application lifecycle (Start, Stop and Delete). In the first release, PaaSport marketplace supports four distinct PaaS offerings: both proprietary-base providers such as Amazon Web Services and Salesforce's Heroku and open-source PaaS installations such as Cloud Foundry or OpenShift. Monitoring of the application with a wide variety of monitoring metrics is also provided, with the requirement that the developer has included a specific PaaSport monitoring library in the application, for which instructions are provided.

PaaSport Marketplace: The management of deployed applications screen.

Roadmap

In the coming months, the consortium will focus on extending the offered solution in terms of supported PaaS providers, monitoring, and application management capabilities. In parallel, the development process focus on improving PaaSport Marketplace in terms of security, performance and scalability, while resolving issues of the first release.

More Information

Video demonstration of PaaSport Marketplace:

https://www.youtube.com/watch?v=zZIRJAfp6ug

PaaSport Deliverable D5.2 document:

http://paasport-project.eu/download/deliverables/PaaSport_D5.2_finalrelease.pdf