PaaSport Marketplace - Final Release

The research result PaaSport Marketplace – Final release of the FP7 project PaasPort is a platform that resolves the data and application portability issues that exist in the Cloud PaaS market through a flexible and efficient deployment and migration approach.

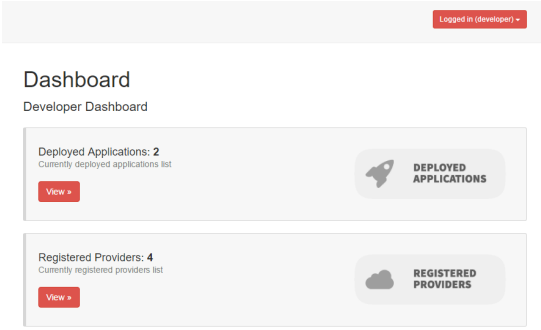
PaaSport suggests an approach that allows developers to be independent from a single vendor and be able to switch between different platforms that they can discover through a single marketplace. This single, interoperable marketplace removes the semantic interoperability barriers and enables the unified access to different PaaS offerings, facilitates cross-platform deployment and allows European Cloud PaaS vendors (in particular SMEs) to promote their products.

The offered platform is currently at public beta that is available online for registration and usage. It allows both PaaS providers and developers to use it in order to register their PaaS offerings and deploy their applications to a PaaS accordingly.

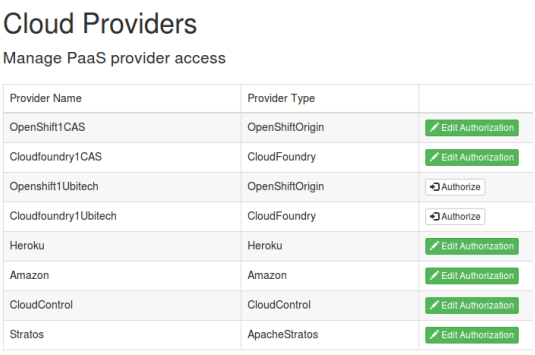
PaaSport and Developers

Developers that are using PaaSport are able to develop applications that are portable among providers, and are also provided with the ability to find the best matching PaaS providers. Deploying, managing and monitoring deployed application to a multitude of PaaS offerings through a single environment is also beneficial as it makes easier to test and use new offerings. Major public PaaS providers like *Amazon*, *Heroku*, *cloudControl*, *Pivotal Cloud Foundry*, *Red Hat OpenShift* and *IBM Bluemix* are already supported on PaaSport, while the inclusion of private clouds is also possible.

As shown in the figure below, the application developer is provided with a dashboard that aggregates basic information of the account, in terms of deployed applications and registered PaaS providers.

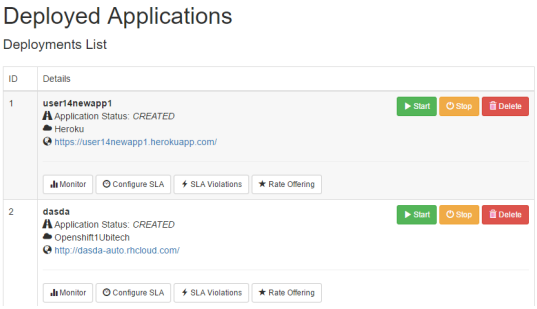


Application developers can easily view all supported PaaS offerings and use dedicated forms to authorize the PaaSport platform with credentials for the specific PaaS offerings.



For a developer that has an application that needs to be deployed, filtering and ranking of the PaaS offerings is provided through the recommendation mechanism supported by the very detailed PaaSport model. The application to be deployed can be any Java based web application and the inclusion of PaaSport libraries that enables monitoring and makes the application portable is optional but highly recommended. Although more languages are supported for deployment (based actually on the limitations imposed by each PaaS), the portability and monitoring libraries are only available for Java.

The deployment can take a few minutes depending on the PaaS offering and afterwards the deployed applications are provided to the dashboard of the user with the availability to manage the application lifecycle, monitor and configure SLA notifications.



By using the PaaS paradigm, developers can enhance their development and deployment process, while developers using PaaSport can be helped to save time and reduce the cost of deployment and migrating from one provider to the other. Developers also benefit by the requirement elicitation through the definition of application requirements that are used in order to find the recommended PaaS offerings.

PaaSport and PaaS Providers

PaaS providers can also benefit from PaaSport as they are offered with a marketplace that they can join and add their product in order to attract more customers to their platform. PaaS providers can use the extended model of PaaSport in order to define all characteristics of their PaaS offering; from infrastructural parameters to defining all the services that are supported by each PaaS. Overall, PaaSport will help European Cloud PaaS vendors to increase their competitiveness by providing feedback for improving their offerings and promoting interoperability and standards in the PaaS segment.

Apart from the public PaaS that are supported already, PaaSport is ready to work with PaaS providers that use their own installation of Cloud Foundry, OpenShift, HP Helion Stackato or Apache Stratos. Furthermore the PaaSport PaaS model and broker mechanisms are easily adaptable in

order to extend to support new PaaS offerings.

PaaSport Reusable Assets

Apart from the whole platform of PaaSport some main assets could be possibly reused as standalone artefacts. These are the Unified Cloud API, the Monitoring service and the Recommendation service.

The Unified Cloud API is the outcome of the analysis of many PaaS Providers in terms of functionalities and standardization bodies and projects. Through this API we have incorporated the functionalities that can be offered by many PaaS offerings and is used for the deployment and management of applications through the PaaSport Marketplace.

The Recommendation service is one of the core assets of PaaSport as it allows making a semantic search based on the needs of the developer of an application and the offerings provided by each PaaS provider.

Finally, the Monitoring service provides detailed metrics and SLA violations in a PaaS-agnostic manner to all applications deployed through PaaSport that include the needed libraries.

Usage of PaaSport Marketplace

A public beta version of the PaaSport Marketplace can be found at http://demo.paasport-project.eu/. Users can register and use the platform in order to deploy, monitor and manage their applications.

PaaSport Marketplace has been developed in the scope of PaaSport FP7 project (Project Number 605193); the PaaSport Marketplace will be improved by fixing issues that will arise on this beta version that is provided for demo usage.

More Information

For any interest in the PaaSport Marketplace or its components, the installation process and the requirements, please contact us. For more information visit:

http://enterprise.paasport-project.eu/
http://paasport-project.eu/

http://www.paasport-project.eu/

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