

Geographically distributed PaaS and User Interface toolkit for scientific applications in the INDIGO-DataCloud

Wednesday, 20 May 2015 16:30 (20 minutes)

Indigo-Datacloud is a recently started H2020 project. Indigo-Datacloud will develop a PaaS platform that will be introduced in this talk. The platform will provide a set of core services simplifying access to geographically distributed resources by providing capabilities to orchestrate the usage of the underlying computational and storage resources.

The main development will focus on: service discovery, monitoring of QoS/SLA compliance, authorization, and error management. Since the core part of all infrastructures is authorization and authentication mechanism the PaaS will provide services of the Identity and Access Management that will aim to provide seamless access to heterogeneous computing infrastructures (Grid, HPC, Cloud-based) to communities of researchers using their own authentication mechanism.

The most challenging activities will be implementation of a high-level orchestrator for the distributed execution of services and applications and a unified data access layer with the aim to abstract the data access seamless across all the e-infrastructures together with the external repositories.

The Indigo-DataCloud user interface driven activities will be focused on complex challenge of guaranteeing a simple and effective final user experience, both for software developers and for researchers running the applications. This objective requires different activities, starting with the development of the open source toolkits and APIs to access the Indigo-DataCloud PaaS framework, so that its features can be used by Portals, Desktop Applications and also Mobile Apps.

Indigo-DataCloud will also provide the support for distributed (coarse grained) data driven workflows for e-Science on Grid, Cloud and HPC resources and a specific support addressing tightly coupled (fine grained) workflows orchestration on big data analytics frameworks.

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Session Classification: Cloud PaaS - all user communities meeting (<http://go.egi.eu/paas>)