VENUS-C: Virtual Multidisciplinary Environments USing Cloud infrastructures

Description

Several research communities in Europe exploit e-Infrastructures, sharing data and computing resources with Grid and Supercomputing technology. However the inherent complexity of these technologies has limited their wider adoption and their long term sustainability: designing, developing and operating a computing infrastructure for an e-Science community remains challenging and costly.

VENUS-C developed and deployed an industrial-quality service-oriented platform based on virtualization technologies to serve research and industrial user communities, leveraging previous experiences and competences of grids & supercomputing, while investigating new sustainable business models. For Europe to remain at an international competitive edge, it needs to continue investing aggressively in new computing technologies such as those that were developed by VENUS-C.

VENUS-C fostered the development of Cloud Computing service offerings taking advantage of existing international opportunities and European industrial potential. Ten years prior to the start of the project, Europe successfully applied a similar approach with Grid computing, importing key technology from the US to quickly become a world-wide leader. By exploiting commercial solutions, but avoiding vendor lock-in with effective interoperability, VENUS-C provided an easy way to deploy end-user services, dynamically extending e-infrastructures capabilities, addressing all aspects of a sustainable infrastructure.

VENUS-C was a Europe-driven industry-led consortium with skilled partners and a strong, international advisory committee formed by worldwide experts in distributed computing and scientific applications. The user communities involved were: Bioinformatics, System Biology, Drug discovery, Civil Protection, Civil Engineering, and Digital Libraries. Twenty short-term experiments were supported in the second year of VENUS-C through a competitive selection process.

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