

IBM and Partners Launch European Union Cloud Computing Initiative

Building the Runway to Cloud Computing

Haifa, Israel – February 4, 2008 – Expanding its cloud computing initiative, IBM (NYSE: IBM) today announced a consortium with 13 European partners to develop technologies that automate the fluctuating demand for IT resources in a cloud computing environment.

The EU-funded initiative called RESERVOIR--Resources and Services Virtualization without Barriers--will enable the deployment and management of IT services across different administrative domains, IT platforms and geographies. The cloud computing project is designed to provide a foundation for a service-based online economy, where resources and services are transparently provisioned and managed.

Cloud computing is an emerging approach to shared infrastructure in which large pools of systems are linked together to provide IT services. The need for such environments is fueled by dramatic growth in connected devices, real-time data streams, and the adoption of service oriented architectures and Web 2.0 applications, such as mashups, open collaboration, social networking and mobile commerce. Continuing advances in the performance of digital components has resulted in a massive increase in the scale of IT environments, driving the need to manage them as a unified cloud.

IBM, which has been researching technologies for cloud computing for more than a decade, kicked off a companywide cloud computing initiative in 2007 across its server, software, services, and R&D units. In November, IBM unveiled plans for “Blue Cloud,” a series of cloud computing offerings that will allow corporate data centers to operate more like the Internet through improved organization and simplicity.

“You can think of cloud computing as the Internet operating system for business and RESERVOIR as the pioneering technologies that will enable people to access the cloud of services in an efficient and cost effective way,” said Dr. Yaron Wolfsthal, senior manager of System Technologies at the IBM Research Lab in Haifa, Israel.

“With demand for IT resources hard to predict, service providers usually over-provision resources in order to support peak demands and ensure continuous service availability and quality, while other systems run at lower capacity,” said Dr. Wolfsthal. “But with RESERVOIR, our aim is to provide cloud-computing-based technologies that will enable the borderless delivery of IT services based on actual demands to keep costs competitive.”

To support the seamless delivery of services to consumers regardless of demand or available computing resources, RESERVOIR will introduce the new capabilities for the deployment of commercial service scenarios that cannot currently be supported. These capabilities will be made possible by developing new virtualization and grid technologies.

For example, RESERVOIR could be used to simplify the delivery of online entertainment. As the distribution of television shows, movies and other videos are moving to the Web, the RESERVOIR project would enable a network of service providers to host the different

media. Using cloud computing technology, the broadcasters can join forces to reach a service cooperation contract that enables them to tap into advanced services including content distribution, load balancing, and overlay networking across different platforms in different countries.

Any time additional services or infrastructure are needed, they can be rapidly supplied through the cloud by any of the various RESERVOIR-powered sites. For example, if there is large demand for a show hosted by a particular site, it can dynamically 'hire' additional servers and services from other sites that are not being used.

The IBM Haifa Research Lab will lead this 17M Euro computing project and the consortium of partners from academia and industry to pursue this effort. The group includes Telefónica Investigación y Desarrollo, University College of London, Umea University, SAP Research, Thales, Sun Microsystems, Datamat, Universidad Complutense de Madrid, CETIC, University of Lugano, the University of Messina and the OGF.eeig standards organization.

RESERVOIR will be built on open standards to create a scalable, flexible and dependable framework for delivering services in this cloud computing model. The project is expected to serve IBM, partners and customers in the development of modern data centers with quantified and significant improvements in service delivery productivity, quality, availability and cost.