Communiqués de presse

Le consortium de l'Union Européenne lance un projet de cloud computing avancé avec les hopitaux et le fournisseur smart grid power

Zurich - 24 nov. 2010: Today, a European consortium including IBM; and Sirrix AG security technologies; Portuguese energy and solution providers, Energias de Portugal and EFACEC; San Raffaele (Italy) Hospital and several additional European academic and corporate research organizations announced Trustworthy Clouds or TClouds, a new virtual infrastructure project. The goal of the project is to prototype an advanced cloud infrastructure that can deliver a new level of secure, private and resilient computing and storage that is cost-efficient, simple and scalable.

To demonstrate TClouds, scientists will prototype two scenarios involving critical IT systems including:

- a smart energy grid with Portugal's leading energy and solution providers Energias de Portugal and EFACEC: A combination of smart metering and a Web-based real-time status and energy consumption control system enables public utility providers to monitor and efficiently control a public lighting network. TClouds will show how such energy-preserving systems can be migrated to a cloud infrastructure while increasing their resilience, privacy protection and tolerance, from both hackers and hardware failures

- a patient-centric home healthcare service with San Raffaele Hospital in Milano, Italy, will remotely monitor, diagnose and assist patients outside of a hospital setting. The complete lifecycle from prescription to delivery to intake to reimbursement will be stored securely in the cloud and thus be accessible by the patient, doctors and pharmacy staff. The goal is to demonstrate how the quality of in-home healthcare can be improved cost-efficiently without reducing privacy.

"*Today, data can be gathered everywhere and accessed by anything, but doing so doesn't come without some risk, including security and data loss*," comments **Dr. Matthias Schunter, technical leader for TClouds and computer scientist at IBM Research - Zurich**. "*With TClouds we aim to demonstrate that the rewards in terms of both cost efficiencies and smarter services, such as healthcare and energy, can be achieved by using advanced cloud technology to reduce or, in some cases, eliminate those risks*."

Inside TClouds

Protecting data and services in the cloud is a challenge of increasing importance for governments and organizations across all industries including healthcare, energy utilities and banking. In a cloud environment, all pertinent data is stored on remote hardware via the Internet instead of being kept on a local server or computer.

To achieve the security, resiliency and scalability needed when outsourcing critical IT systems to a cloud, scientists will build an advanced "Cloud of Clouds" framework for the project. As the name implies, this framework will provide multiple back-ups of the TClouds data and applications in case of a hardware failure or intrusion.
Newly designed security mechanisms will also be developed to remotely verify the security and resiliency of the

cloud infrastructure, guaranteeing the integrity of a hardened cloud computing platform to users of cloud services.

Besides advanced technology, TClouds will also study the legal, business and social aspects of cross-border cloud computing, such as country-specific privacy laws; writing cloud computing service agreements; and user-centric requirements, including languages and accessibility.

TClouds is a 10.5M EURO project, with 7.5M EUROS funded under the European Union's FP7 Framework. The project will be coordinated by Technikon Research and Planning in Austria and the partners include corporate and public organizations IBM Research - Zurich, Philips Electronics, Sirrix AG, Unabhängiges Landeszentrum für Datenschutz Schleswig-Holstein, Energias de Portugal, EFACEC and San Raffaele Hospital as well as academic research institutes Technische Universität Darmstadt, Germany; University of Lisbon, Portugal; University of Oxford, England; Politecnico di Torino, Italy; Friedrich-Alexander University of Erlangen-Nuremberg, Germany, and UNU-MERIT (University of Maastricht).

"*TClouds is the most innovative cloud security research project in Europe. Therefore, we have assembled a who's who of expertise to validate that these hosted environments are ready for Industry's most secure and trusted data*," comments **Dr. Klaus-Michael Koch, project coordinator, Technikon Research and Planning**.

The TClouds project is scheduled to be completed by September 2013.

For more information http://www.tclouds-project.eu/
