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## For more information, please visit or contact:

**http://www.cloudsoftwareprogram.org/**


Focus Area Director: **Janne Järvinen** (F-Secure)
Email: **janne.jarvinen (at) f-secure.com**

Program Coordinator: **Tua Huomo** (VTT)
Email: **tua.huomo (at) vtt.fi**

Academic Coordinator: **Pekka Abrahamsson** (University of Helsinki)
Email: **pekka.abrahamsson (at) cs.helsinki.fi**


***"According to the 2009 survey the most significant factors of competitiveness are operational efficiency, user experience, web software, open systems, security engineering and sustainable development. The Cloud Software program aims to pioneer building new cloud business models, Lean software enterprises and an open cloud software infrastructure"***

**Janne Järvinen**, Focus Area Director
**Cloud Software Program**

Tekes

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# Software cloud from Finland


TiViT

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# Feet firmly on the ground, heads high in the clouds

The Internet is becoming ubiquitous. The web is now accessible from more capable hand held devices and home electronics than ever before. The killer app of the future is the one which accesses web provided data from anywhere in the world.

The software industry is currently experiencing a paradigm shift from traditional installable applications to web-based software, where applications consisting of data, code and other resources live on the Web as services and can be located anywhere in the world.

In the future, cloud technology will represent a major part of daily life. Active use of Internet applications will become common practice when, for example, consumers store, use, and distribute material they have created themselves.

The Finnish Cloud Software program is a research co-operation initiative by Finnish ICT leaders and pioneers focusing on establishing software engineering principles to web development, creating superior user experience, and empowering innovative green software technology.

## Cloud software is open

Cloud Software is a project by Tivit plc., one of the Finnish Strategic Centres for Science, Technology and Innovation (SHOK), and is funded by the Finnish Funding Agency for Technology and Innovation (Tekes). Tivit was founded in February 2008 for the purpose of predicting the products and services of the future and is owned by 46 companies and public research communities.

The four-year Cloud Software Program was initiated in 2010 and now forms a partner network of 20 Finnish enterprises and 8 research organizations in Finland. The project aims to generate breakthroughs in the field of cloud technologies, Lean enterprises and business models, integrating user experience and security as value-adding elements.

The preparation stage of Tivit's projects is open to all interested parties, and information concerning preparation stages already underway can be found on Tivit's website.

**http://www.tivit.fi/en/contacts**

## Cloud technologies

**Main goals of the technology in the cloud work package:**
- Collect a compilation of best practices for cloud computing
- Develop toolbox for cloud computing application development
- Define & build an open cloud demonstration environment
- Define guidelines for openness in the cloud
- Develop sample applications that benefit from cloud computing and content mashupping

## Lean software enterprise

**Key tasks of the work package:**
- Developing a framework for applying the Lean principles towards an enterprise transformation
- Conducting Lean Enterprise Transformation. Making Lean applicable in cloud software organizations
- Scaling Agile Software Development. Perfecting & automating the cloud software R&D engine
- Developing Integrated Software R&D Approaches. Seeking for competitive edge.

## Cloud business

**Principles for the cloud business model development :**
- The cloud business models make use of open networks as the means to market and deliver software-based services on demand to the members of the internal and/or external value network.
- The business models make use of open interfaces, web technology, cloud platforms distributing processing and storage to the Internet, and also often open source software.

## Safe, sustainable and open cloud ecosystem with superior user experience

In the software field, the most important competitive edges are operational efficiency, superior user experience, web-based software, open systems, data security, and sustainable software development.

The Cloud Software studies include research into what makes a product or service stand out and delight the user. Integrating user experience into software development throughout its life cycle is a basis for successful market development.

The cloud business models make use of open interfaces, open source software, web technology and cloud platforms.

Finland has pioneered research in Security Metrics, Vulnerability, Managing Complexity, Security as a Quality Aspect and Software Robustness areas. There is a desire to improve software and system development life-cycle efficiency so those efforts can drive security and security can support them.

Sustainable development is an emerging strong trend that is driven by the increase in price of energy and natural resources, consumer awareness and legislation.
Finland has always had a strong foothold in producing low-energy solutions and offers a good environment for the realization of green information technology: a cool climate, abundant water resources, good level of education, safety and inexpensive green energy.

The project involves investigation into how environmental friendliness can be improved with the help of software programs and algorithms.