

## **Name of Session: Can the Cloud Be Trusted?**

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Other contributors to session: Demosthenes Ikonomou, Martin Sadler, ...

### **Introduction**

At the previous FIA events, the question of trust has almost always immediately been raised when core Future Internet principles, including distributed ownership, flexible infrastructures, ad-hoc service compositions and large-scale collaboration, have been discussed. FIA sessions dedicated to trust topics have resulted in an understanding that

- Trust is vital for the Future Internet and its many opportunities to become reality
- Trust, while initially describing relations between humans, extends to technical and organisational entities when considering the Future Internet, asking for trust to become measurable
- The foundations of trust are truly interdisciplinary and strongly interrelated, comprising social, economic, legal and technical aspects.

### **Terms of Reference**

In this session, we want to apply and make concrete these findings in the context of cloud computing, since the cloud is one of the first available, commercialised and widely used manifestations of the abovementioned Future Internet principles. The cloud, in its different appearances as infrastructure / resource cloud, platforms as a service, or applications as a service, exemplifies potential trust issues:

- How can trust be built in the digital space of the cloud, where services and resources are exposed instead of humans? We do have means at hand (SLAs, monitoring and logging, privacy enhancing technologies, reputation systems, security technology, process and risk models, etc.), how should they be combined and applied to manage trust effectively?
- Is trust specific to application domains and cloud models?
- What kinds of events in the cloud (like migration of data across servers or domains) have an impact on trust? What needs to be signalled to a user, taking his role as consumer or provider of services and content into account, how much details needs to be exposed?
- What needs to be done to ensure that users are not overwhelmed by the amount of information and technical detail, still being able to make informed decisions?
- Does the cloud need regulation to provide trust? Do cloud providers and services need to be certified? Which principles should apply?

The issues will be addressed from two complementing angles: a business viewpoint emphasising on needs and customer requirements, and a technology viewpoint, emphasising on technology enablers and the state of the art. A gap analysis will help to identify research priorities

### **Session Format**

The session will feature two keynote speakers, who will be given 30 min each to develop their position on the session topic. This is followed by a 30 min discussion session (open discussion with the audience facilitated by the moderators). Keynotes are foreseen to be given by Martin Sadler, HP Labs, (confirmed) and Demosthenes Ikonomou, ENISA (to be confirmed).