Scalable & Adaptive Internet Solutions (SAIL)

FP7-ICT-2009-5-257448-SAIL

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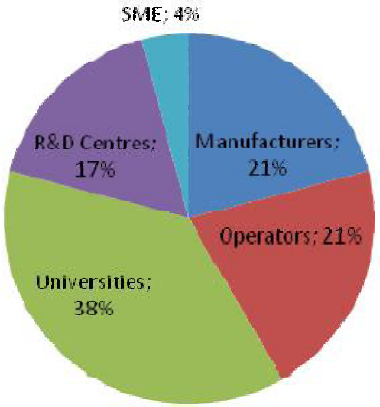
THE SAIL CONSORTIUM

A strong industry-led consortium of leading operators, vendors and research institutions

- 24 Partners
- 12,4 MEUR EU funding
- 2,5 year project
- 7 out of 24 partners new



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Why SAIL ?

Challenges/trends driving requirements for future networking

- SAIL is rooted in reality
  - Future Internet Research applied for deployment in 2015
- Internets architectural model is being challenged
  - Explosion of user-generated content in the network – from *consumers* to ”*prosumers*”
- Heterogeneous/disparate connectivity patterns
  - Coordination of diverse technologies getting overly expensive
- The net being seen as a utility service with on-demand usage pattern

→ Application paradigms drive network research

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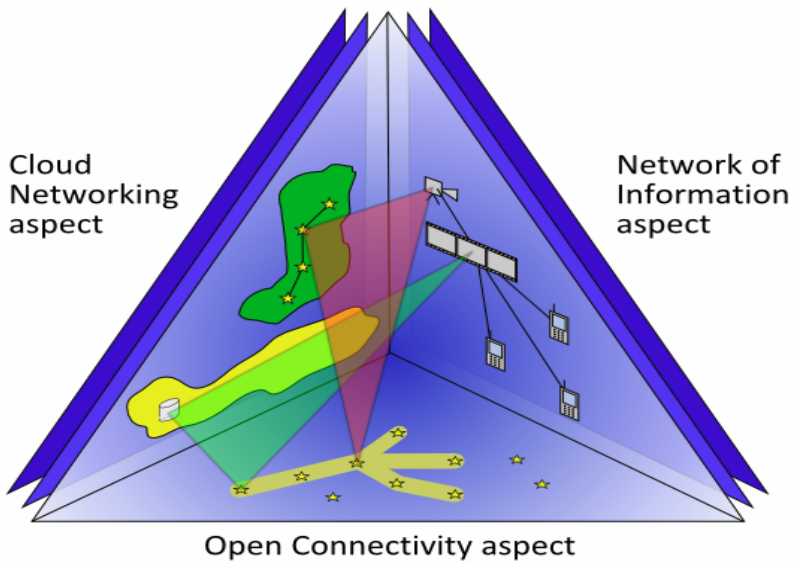
Scalable Adaptive Internet Solutions

On-demand usage of network resources

- Cloud Networking: Tying Cloud Computing and Network Virtualization together
- Open Connectivity: Efficient use of multi-path, multi-protocol and multi-layer networking – over any fixed and mobile networks
- Network of Information: Shift of focus from network nodes to information objects



The SAIL approach

- **Evolutionary** approach:
  - Migrate the current Internet towards a renewed Future Internet
  - Based on global standardization activities.

- **Leverage** a novel internetworking architecture and innovative technology propositions
  - Storage and management functions in the network
  - New transport and control plane mechanisms
  - Dynamic provisioning and coordination of networking, storage and computing resources – Flash Slices.

- **Integrate** using **experimentally-driven research** into a coherent flexible and adaptive communication framework.

- → **Prototype** the Network of the Future!
  - Proof-of-concept for core part of the Network of the Future

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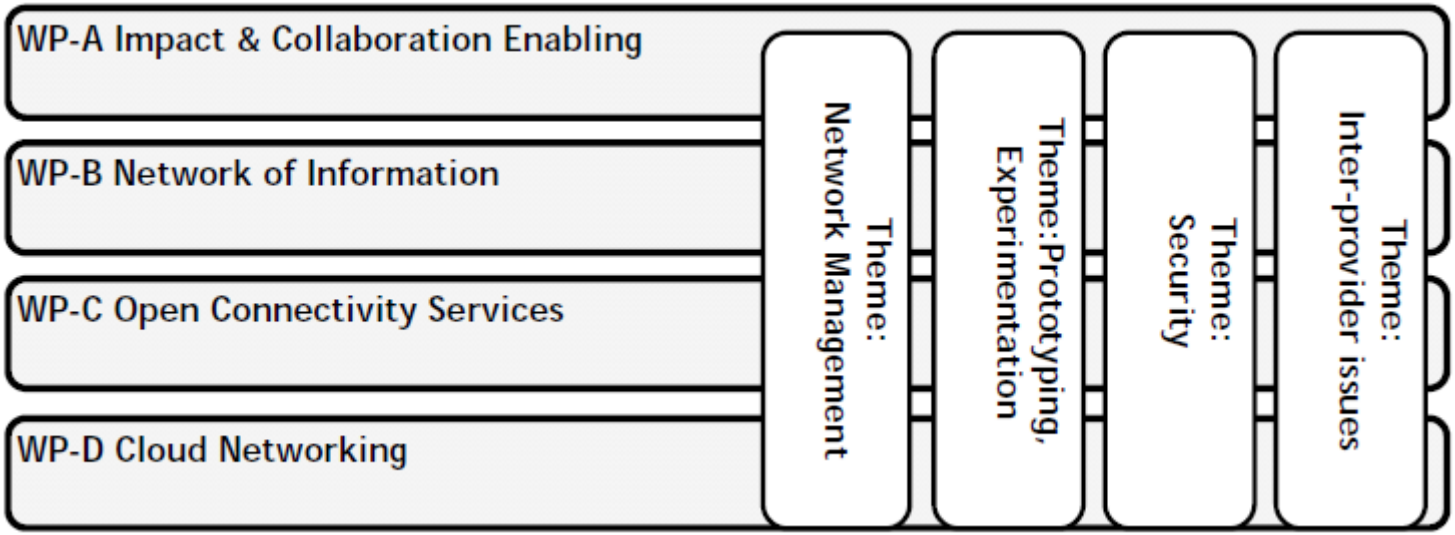
Work Packages and Themes



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Dissemination 1.0 and 2.0

- Complement “traditional” dissemination effort (papers, publications and conferences) with a “2.0” approach

- Utilize social media channels to drive visibility and encourage interaction

- Benefits:
  - New, additional, potential audience
  - Interaction and feedback in earlier phases (before end-result)

- WoW
  - Explorative. “Best” channel(s) not given
  - Measure reach and interaction to evaluate channels
  - Ensure participatory mindset within SAIL project

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Expected outcome

- SAIL will have contributed substantively to at least **one future Internet standards activity** that is targeted for deployment around 2015

- SAIL will have disseminated its scientific results to at least **four major conferences** or journals

- SAIL will have developed **running prototypes** and credible migration strategies for each of the major technologies developed
  - Relevant major technologies will be listed by end of the first reporting period
  - Prototypes will be demonstrated at two industry-relevant events at least
  - Prototype implementations of the SAIL functionality expected to be made publicly available by 2012 based on open source software

- SAIL will develop and **distribute APIs** that enables programmers to use the corresponding functions and services for each work package.
  - NetInf: the interface to insert, remove and map Information Objects;
  - OConS: the interface to request, release and reconfigure an advanced communication service;
  - CloNe: the interface to allocate and free up network, storage, and computing resources in the operators' network.

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... well on our way towards becoming a strong team! ☺

S A I L

SCALABLE & ADAPTIVE INTERNET SOLUTIONS

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SEVENTH FRAMEWORK PROGRAMME

Our Partners

- ERICSSON Sweden
- ALCATEL-LUCENT Germany
- NOKIA SIEMENS NETWORKS Finland
- NEC EUROPE United Kingdom
- FRANCE TELECOM France
- TELEFONICA Spain
- TELECOM ITALIA Italy
- PORTUGAL TELECOM Portugal
- SICS Sweden
- INSTITUTO SUPERIOR TECNICO Portugal
- UNIVERSITAET PADERBORN Germany
- AALTO-KORKEAKOULUSAATIO Finland
- KUNGLIGA TEKNISKA HÖGSKOLAN Sweden
- FRAUNHOFER Germany
- UNIVERSITÄT BREMEN Germany
- HEWLETT-PACKARD United Kingdom
- ROBOTIKER Spain
- Institut Telecom France
- TECHNION Israel
- DOCOMO EUROPE Germany
- INRIA France
- TRINITY College Ireland
- NICTA Australia
- UNIVERSIDAD DE CANTABRIA Spain

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SAIL Work Packages

- Impact and Collaboration Enabling **ICE:**
  Analyze *socio-economic impact*, addressing use-cases, business roles and models, regulation, enabling new markets and increasing opportunities for competition and cooperation.

- Network of Information **NetInf**:
  Handles *access to content* by addressing the content and creating efficient content distribution

- Open Connectivity Services **OConS**:
  Network connectivity with Multi-path/point/protocol (multi-p), open, interoperable support for heterogeneous networks

- Cloud Networking **CloNe**:
  Integrate *cloud computing + virtualized networking*. Enable dynamicity in networks and cloud computing

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