

PROJECT

SPARC

Split architecture carrier class future networks

Funding: European (7th RTD Framework Programme)

Duration: Jul 2010 - Sep 2012

Status: Complete with results

Total project cost: €3,070,488

EU contribution: €2,000,964



[CORDIS RCN : 95200](#)

Background & policy context:

The project SPARC « Split architecture carrier grade networks » is aimed at the investigation and implementation of a new split in the architecture of the Future Internet and its building blocks. The design of the new architecture will focus on the split of control, forwarding and data processing elements. The objective of the Split Architecture is a modularisation of logical and physical functionality in order to manage complexity.

Objectives:

Split Architecture will have a particular impact on the following areas:

- Separate optimisation of network and functional building blocks, e.g. application modules, controller software, forwarding engine
- Reduce dependencies on legacy protocols and design principles
- Lower market entry barriers
- Increase market volumes of modules

Parent Programmes:

[FP7-ICT - Information and Communication Technologies](#)

Institute type: Public institution

Institute name: European Commission

Funding type: Public (EU)

Other funding sources: Funded under the call: FP7-ICT-2009-5 Topic: ICT-2009.1.1 - The Network of the Future

Partners:

- Deutsche Telekom AG, Germany (Coordinator)
- Ericsson AB, Sweden
- Ericsson Hungary, Hungary
- European Center for Information and Communication Technologies GmbH, Germany
- Interdisciplinary Institute For Broadband Technology, Belgium
- Acreo AB, Sweden

Organisation: Deutsche Telekom AG

Contact country: Germany

Organisation Website: <https://www.telekom.com/en>

Key Results:

The SPARC project through its numerous realisations will:

- Overcome structural limitations of the current Internet architecture resulting from an increasingly larger set of applications and of devices and edge networks to be supported
- Enable dynamic and efficient support of various traffic patterns for synchronism, end-to-end quality, location independence, mobility and future service architectures
- Contribute to new concepts for flexible and cognitive network management and operation frameworks for dynamic, ad-hoc and optimised resource allocation and control, administration with accounting that ensures both a fair return-on-investment and expansion of usage, differentiated performance levels that can be accurately monitored, fault-tolerance and robustness associated with real-time trouble shooting capabilities
- Participate and realise standardisation of the OpenFlow protocol from a European perspective

STRIA Roadmaps: Vehicle design and manufacturing

Transport mode: Multimodal transport

Transport sectors: Passenger transport, Freight transport

Transport policies: Digitalisation, Deployment planning/Financing/Market roll-out

Geo-spatial type: Other