CHOReVOLUTION

H2020 ICT9 Project

Deliverable D7.3

Collaboration Plan

http://www.chorevolution.eu

THALES

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trasa

THE FRAMEWORK PROGRAMME FOR RESEARCH AND INNOVATION HORIZON 2020

Project Number	:	644178
Project Title	:	CHOReVOLUTION

Deliverable Number	:	D7.3
Title of Deliverable	:	Collaboration Plan
Nature of Deliverable	:	Report
Dissemination level	:	Public
Licence	:	Creative Commons Attribution 3.0 License
Version	:	A.0
Contractual Delivery Date	:	M6 (01/07/2015)
Contributing WP	:	WP7
Editor(s)	:	S. Keller (TCS)
Author(s)	:	All partners
Reviewer(s)	:	C. Thomas (OW2), A. Di Salle (UDA)

Abstract

This deliverable is the plan covering the liaison and co-operation activities with the EC Collaboration Working Groups and other ICT projects.

Keyword list

Plan, Collaboration, Collaboration Working Groups

Document History

Change history is tracked by OPTET EDM tool.

Document Review

Review	Date	Ver.	Reviewers	Comments
Outline	17/06/2015	0.1	Shared during PMC meeting	
Draft	09/07/2015	0.9	C. Thomas and A. Di Salle	Sent by email
QA	15/07/2015	A.0	S. Keller	
PMC	15/07/2015			

Glossary, acronyms & abbreviations

Item	Description
CA	Consortium Agreement
CSA	Coordination and Support Action
DL	Deliverable Leader
DOW	Description of Work
IAC	Industrial Advisory Committee
ICT	Information and Communications Technologies
EU	European Union
EC	European Commission
FI-PPP	Future Internet – Public-Private Partnership
IA	Innovation action
IoT	Internet of Things
M2M	Machine to Machine
MST	Management Support Team
OSS	Open Source Software
PL	Project Leader
PMC	Project Management Committee
PO	Project Officer
PTC	Project Technical Committee
RIA	Research and Innovation action
SL	Scientific Leader
SLA	Service Level Agreement
WG	Working Group
WP	Work Package
WPL	Work Package Leader

Table of Contents

1. Introduction

The collaboration plan described in this report covers the liaison and co-operation activities of the CHOReVOLUTION project with other ICT projects, mainly selected in ICT-2014-1 call. The cooperation aims at exploiting synergies between the projects and increasing the impact of the ICT initiative.

This plan covers the specific activities for collaboration with other ICT projects, i.e., as defined in Task 7.5 of the DoW:

- Participation in relevant collaboration activities and contribution to workshops organized by third-party projects and support actions.
- Organizing collaboration workshops to create opportunities for functional extension to the CHOReVOLUTION by other EU-supported ICT projects.
- Liaising and cooperating with other ICT projects to develop both technical and dissemination synergies between projects and increase potential market impact.
- Specific attention will be paid to collaboration opportunities offered by EU-supported events and projects such as FI-PPP, Net Futures conferences, etc.

Other deliverables cover the other transfer activities:

- Dissemination and Standardization activities (D7.4 and D7.12);
- Open source community building (D7.2 and D7.10); and
- Industrialization, Exploitation and Market take-up activities (D7.5 and D7.13).

More specifically, this deliverable presents the CHOReVOLUTION plan for collaboration, including the specific working groups this project will participate to. It will be followed by D7.11 delivered at the end of the project, detailing the activities concretely done. A table, to synthetizing the different actions to be done is given in Annex B.

CHOReVOLUTION seeks cooperation with other ICT projects in organizing workshops during upcoming industrial and academic conferences as listed in Tasks 7.4 of the DoW, in order to increase the exchange of ideas and achieved results among related projects and attract wider audience to the sessions. This deliverable is organized as follow:

Section 2 delivers the main foreseen areas of collaboration;

Section 3 appreciates individual collaboration with H2020 projects with regards to the preceding areas of collaboration;

Section 4 values global collaboration with Collaboration Working Groups;

Section 5 completes the list of potential collaboration with projects already mentioned in the DoW.

2. Main Areas of Collaboration

This section briefly recalls CHOReVOLUTION main objectives and cross-references them with the main fields of interest of ICT-09-2014 Tools and Methods for Software Development projects as well as of H2020 Collaboration Working Groups.

2.1. CHOReVOLUTION Main Objectives

Overall, CHOReVOLUTION aims at assisting the engineering of software service compositions in the revolutionary networking environment created by the Future Internet. To

achieve its goal, CHOReVOLUTION will devise a dynamic development process, and associated methods, tools and middleware, to sustain the composition of services in the Future Internet.

In more detail and as stated in CHOReVOLUTION Description of Work (DoW), main objectives, and associated progress beyond the state of the art, of CHOReVOLUTION are:

- OB1–Choreography modelling notations to support adaptation, evolution, and security.
- OB2–Automated and dynamic choreography synthesis
- OB3–Middleware for dynamic and secured choreographies
- OB4–Secured choreographies
- OB5–Validation through industrial use cases
- OB6–Development Support & Integration Platform
- OB7–Establishment of a CHOReVOLUTION community and market take-up

These objectives are a base to find project, working group or event for collaboration aspects.

2.2. CHOReVOLUTION Objectives wrt Call ICT-2014-1

CHOReVOLUTION contributes specifically to the Work Programme topic ICT-09-2014: Tools and Methods for Software Development. The specific challenge addressed is the effective development, deployment and enactment of large and interoperable software systems via distributed coordination of heterogeneous software services. Overcoming the limitations of current service composition approaches, as a solution to this challenge, we will develop methods, and related tools, that constitute the core of an innovative technological platform for realizing dynamic and secured service choreographies in the Future Internet. All developed technologies will be validated against industrial use cases in the domain of Intelligent Transportation Systems (ITS), hence boosting the availability and market take-up of the CHOReVOLUTION tools and highlighting potentials for productivity gains in the industry of ITS.

More globally, CHOReVOLUTION contributes to the Work Programme ICT-2014-1in which different topics are listed (See Annex A). The more other interesting topics for CHOReVOLUTION have been selected. They are:

- ICT-07-2014: Advanced Cloud Infrastructures and Services
- ICT-13-2014: Web Entrepreneurship

In chapter 3, the list of the projects interesting CHOReVOLUTION and belonging to these topics will be highlighted. Only for these projects, collaboration will be envisaged.

2.3. CHOReVOLUTION Objectives wrt Collaboration Working Groups

In the context of the Digital Agenda for Europe, proposed by the European Commission, CHOReVOLUTION aims to contribute in Digital economy.

European Union wants to offer the Entrepreneurs and small businesses a secure environment, where they will be able to enjoy the benefits of the big data revolution, of cloud computing and cutting-edge technology.

The different topics proposed by the EC for Digital Economy are[1]:

[1] https://ec.europa.eu/digital-agenda/en/digital-economy

- Start-up - Europe aims to strengthen the business environment for web and ICT entrepreneurs so that their ideas and business can start and grow in the EU.
- Future internet - if the Internet could wish for anything on its 40th birthday, it would probably ask to be more powerful, connected and intuitive – responding to our needs at home, work or on the go.
- Data - harnessing the benefits of access to valuable data on a large scale, to create solutions to problems like health issues and transport challenges.
- Cloud computing - working for better standards, safer contracts and more cloud in public and private sector.
- Advisors - we regularly meet with web entrepreneurs and expert groups, like the Digital Champions and Leaders Club, to discuss new ways to promote a more inclusive digital society.

CHOReVOLUTION is mainly involved in Start-up and Future internet topics. These topics help to select the working group where CHOReVOLUTION usage could make sense.

2.3.1. Start-up topic

Two main Start-up Europe's objectives are:

- To reinforce the links between people, business and associations who build and scale up the start-up ecosystem (e.g. the Web Investors Forum, the Accelerator Assembly, the Crowdfunding Network ...)
- To inspire entrepreneurs and provide role models (e.g. the Leaders Club and their Start-up Manifesto, the Start-up Europe Roadshow)

In the context of its exploitation, CHOReVOLUTION will propose a way to present its outcome to people involved in SME's or start-up. (**Action: OW2**).

2.3.2. Future Internet topic

For this topic, CHOReVOLUTION aims to continue to collaborate on Future Internet where CHOReOS was already involved. In this area, different research areas are identified. Based on the description provided by the European commission, the areas interesting CHOReVOLUTION are:

- Research into the Future Internet,
- Research into the Network Technologies of the future,
- Work on the Internet of Things - a system to connect all kinds of devices to the network - not just computers, but everything from your car to your fridge,
- Forums in which to discuss and develop the Future Internet, including the Future Internet Assembly (FIA) and the Future Internet Forum (FIF).

3. Related Projects

For each of the most relevant topics in call ICT-2014-1, as sketched previously (see 2.2), this section reviews projects with which point-to-point collaborations will be investigated during CHOReVOLUTION life time. The list of selected projects comes from Annex B.

3.1. Coordination and Support Action

Projects that are parts of this field of interest:

- *AppHub* aims to support the market outreach strategies of EU-supported open source by launching AppHub, the European open source market place. As CHOReVOLUTION outcomes will be open source, collaboration shall be envisaged to take benefits from AppHub CSA. (**Action: OW2**).
- *Hola Cloud* will initiate an advanced conference series producing and revising an annual technology roadmap and providing an efficient venue for the members of the community to meet and exchange results and ideas for the future. A collaboration (or participation) could be envisaged for CHOReVOLUTION. (**Action: CEFRIEL**).
- *SLA-Ready* and *SLALOM* deliver a reference model for Cloud SLAs & a set of best-practices & services to support cloud customers in the use of cloud SLAs through their life cycle. A collaboration with CHOReVOLUTION could be envisaged regarding SLA definition. (**Action: CEFRIEL**).

3.2. Research and Innovation action

This area of interest addresses the following points: service coordination, testing, maintenance, migration to clouds and open source development, among which service coordination and open source development are of utmost interest to CHOReVOLUTION.

We thus consider the following projects for possible collaborations:

- *ARCADIA*: aims to design and validate a Novel Reconfigurable-By-Design Highly Distributed Applications Development Paradigm over Programmable Infrastructure. The proposed framework will rely on the development of an extensible Context Model which will be used by developers directly at the source-code level. ARCADIA outcomes could be used in CHOReVOLUTION, especially in the use cases developments. (**Action: SOFTECO**).
- *CLARUS:* The main objective of CLARUS is to enhance trust in cloud computing services by developing a secure framework for the storage and processing of data outsourced to the cloud. If the CHOReVOLUTION use cases need to manage private data, a collaboration could be envisaged to use or to propose at least the outcome of CLARUS. (**Action: TCS**).
- *CloudSocket:* introduces the concept BPaaS that fulfills the business process needs thanks to smart alignment techniques, packages this BPaaS as “extended Cloudlets” that are autonomously deployable and include adaptive rules to appropriately react in a multi-cloud environment by keeping SLAs and process-based billing. A potential collaboration could be to compare CloudSocket BPaaS with CHOReVOLUTION outcomes. (**Action: UDA**).
- *HyVar:* proposes a development framework for continuous and individualized evolution of distributed software applications running on remote devices in heterogeneous environments. In the context of CHOReVOLUTION use cases, collaboration could be envisaged to take benefits of HyVAR outcomes in the developed mobile applications. (**Action: Viktoria**).
- *PaaSword:* intends not only to adopt the CSA Cloud security principles, but also to extend them by capitalizing on recent innovations. If the CHOReVOLUTION use cases need to propose some complementary tools to reinforce security, it could be done by re-using outcomes from PaaSword. (**Action: TCS**).
- *SWITCH:* aims at improving the existing development and execution model of time critical applications by introducing a novel conceptual model (application-infrastructure co-programming and control model), in which application QoS/QoE, together with the programmability and controllability of the Cloud environments, can all be included in the complete lifecycle of applications. CHOReVOLUTION is not specifically dedicated

for time critical application but some idea coming from SWITCH could be taken into account (**Action: CEFRIEL**).

4. Related Collaboration Working Groups

4.1. Future Internet

The Future Internet Public Private Partnership (FI-PPP) will make infrastructures and business processes smarter (i.e., more intelligent, more efficient, more sustainable) through tighter integration with Internet networking and computing capabilities. The FI-PPP looks at different sectors such as transport, health, and energy. It defines possible innovative business models for these sectors.

The FI-PPP is in its third phase with the following activities:

- Expansion of use cases by developing applications and services
- Extending the technology foundation

In this phase, technology foundation is migrating to open source technology. It is a good opportunity to envisage collaboration between CHOReVOLUTION and FI-Core. This collaboration could be bidirectional:

- How to enrich FI-Core catalogue with Generic Enablers coming from CHOReVOLUTION.
- How to complete the CHOReVOLUTION platform and/or the use case with the Generic Enablers provided by FI-Core.

(**Action: UDA**)

Another aspect of Future Internet is the different platforms offering a realistic, large-scale environment allowing experimentation and testing.

The FIRE initiative (Future Internet Research and Experimentation) creates an open research environment which facilitates strategic research and development of new Internet concepts, giving researchers the tools they need to conduct large-scale experiments on new paradigms.

In the context of H2020-ICT-2014-1call, European Commission has proposed a specific topic: ICT-11-2014, FIRE oriented. One of the selected projects, "Fiesta-IoT" is about federation of IoT testbeds, principally based on semantic data interoperability. Collaboration could be envisaged on IoT aspect.

(**Action: Inria**)

4.2. Network Technologies of the future

The EU Commission signed a landmark agreement with the '5G Infrastructure Association' on 17 December 2013, representing major industry players, to establish a Public Private Partnership on 5G (5G-PPP). This is the EU flagship initiative to accelerate research developments in 5G technology. The European Commission has earmarked a public funding of €700 million through the Horizon 2020 Programme to support this activity.

EU investment in 5G technology is also an essential factor in reinforcing EU know-how and leadership in the field of ultrafast broadband. It is not only necessary to support the traffic volume expected by 2020 but also to boost networks and Internet architectures in emerging areas such as machine-to-machine communication (M2M) and the Internet of Things (IoT).

5G-PPP Phase 1 has just begun and it could be interesting for CHOReVOLUTION to follow the 5G-PPP phase outcomes. Collaboration would be mainly interesting on security and on IoT fields.

(**Action: TCS**)

4.3. Work on the Internet of Things

Internet of Things (IoT) represents the next step towards the digitisation of our society and economy, where objects and people are interconnected through communication networks and report about their status and/or the surrounding environment. IoT can also benefit the European economy generating economic growth and employment.

In this context, the Alliance for the Internet of Things (AIOTI) was launched by the European Commission and various key IoT players. The AIOTI aims to give EU the lead in the Internet of Things (IoT) field creating a dynamic European IoT ecosystem. 11 different working groups have been defined. An important part of these working groups are dedicated to IoT impacts in different business domains.

Collaboration could be envisaged, especially in the following business group:

- WG 8: Smart cities
- WG 9: Smart mobility (smart transport/smart vehicles/connected cars)

And could benefit from the the outcomes of the four first working group.

(**Action: Inria**)

4.4. Forums in which to discuss and develop the Future Internet

After 11 successful years, the former annual Future Internet Assembly (FIA) was replaced by in 2015 by Net Futures 2015. CHOReVOLUTION will follow closely the Net Futures or similar events in order to take opportunity of, e.g., presentations. (**Action: OW2**)

5. Other projects and initiatives

In the DoW, different projects were mentioned related to CHOReVOLUTION. These projects can be finished or on-going. In this section, the more relevant projects are listed with the indication if collaboration activities during CHOReVOLUTION life time make sense.

- *CHOReOS* and *CONNECT* are FP7 projects. These projects are strongly associated with CHOReVOLUTION due to the fact that a part of their partners are involved now CHOReVOLUTION. No specific collaboration will be envisaged.
- *ANIKETOS* could clearly benefit to CHOReVOLUTION. This project is achieved and has delivered a lot of outcomes regarding services security. Collaboration shall be envisaged in order to take benefits from its outcomes. (**Action: Tirasa**)
- *TAS3* delivers a platform providing security. Collaboration shall be envisaged in order to analyse the potential benefits for CHOReVOLUTION. (**Action: TCS**)
- *AU2E,* based on TAS3 platform, has define and provided different security solutions to manage authorisation and privacy. Collaboration shall be envisaged in order to analyse the potential benefits for CHOReVOLUTION. (**Action: TCS**)
- Inria-CITRIS International Collaboration on Smart Cities Research could give the opportunities to extend CHOReVOLUTION use cases with different concepts coming from outside of European Union. (**Action: Inria**)

Annex A : Topics and project for ICT-2014-1

Topics[2]:

ICT-01-2014: Smart Cyber-Physical Systems

ICT-02-2014: Smart System Integration

ICT-03-2014: Advanced Thin, Organic and Large Area Electronics (TOLAE) technologies

ICT-05-2014: Smart Networks and novel Internet Architectures

ICT-06-2014: Smart optical and wireless network technologies

ICT-07-2014: Advanced Cloud Infrastructures and Services

ICT-09-2014: Tools and Methods for Software Development

ICT-11-2014: FIRE+ (Future Internet Research & Experimentation)

ICT-13-2014: Web Entrepreneurship

ICT-15-2014: Big data and Open Data Innovation and take-up

ICT-17-2014: Cracking the language barrier

ICT-18-2014: Support the growth of ICT innovative Creative Industries SMEs

ICT-21-2014: Advanced digital gaming/gamification technologies

ICT-22-2014: Multimodal and Natural computer interaction

ICT-23-2014: Robotics

ICT-26-2014: Photonics KET

ICT-29-2014: Development of novel materials and systems for OLED lighting

ICT-31-2014: Human-centric Digital Age

ICT-32-2014: Cybersecurity, Trustworthy ICT

ICT-33-2014: Trans-national co-operation among National Contact Points

ICT-35-2014: Innovation and Entrepreneurship Support

Projects:

In the following table, the different projects selected during the call ICT-2014-1 for the topics ICT-07-2014, ICT-09-2014 and ICT-13-2014 are mentioned with their url (if existing or reachable). For each project, the interest for CHOReVOLUTION is marked, OK if there is an interest, NOK if there is no interest.

This list is not exhaustive but builds from different sources coming from the European Commission[3].

Project name	Topic	Action	Interest for CHOReVOLUTION	Url
ALIGNED	ICT-09	RIA	NOK	http://aligned-project.eu/
AppHub	ICT-07	CSA	OK	http://www.apphub.eu.com/bin/view/Main/

[2] http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-ict-2014-1.html
[3] http://cordis.europa.eu/projects/home_en.html

ARCADIA	ICT-09	RIA	OK	http://www.arcadia-framework.eu/wp/
BEACON	ICT-07	RIA	NOK	http://www.beacon-project.eu/
CLARUS	ICT-07	RIA	OK	http://www.clarussecure.eu/
CloudLightning	ICT-07	RIA	NOK	http://cloudlightning.eu/
CloudSocket	ICT-07	RIA	OK	https://www.cloudsocket.eu/
CloudTeams	ICT-07	IA	NOK	http://www.cloudteams.eu/
CLOUDWATCH2	ICT-07	CSA	NOK	http://www.cloudwatchhub.eu/
CYCLONE	ICT-07	IA	NOK	http://www.cyclone-project.eu/
DICE	ICT-09	RIA	NOK	http://www.dice-h2020.eu/
DIGISTART	ICT-13	CSA	NOK	
EDFx	ICT-13	CSA	NOK	
ePlus Ecosystem	ICT-13	IA	NOK	
ENTICE	ICT-07	RIA	NOK	http://www.entice-project.eu/
ESCUDO CLOUD	ICT-07	RIA	NOK	http://www.escudocloud.eu/
HOLA CLOUD	ICT-07	CSA	OK	
HyVar	ICT-09	RIA	OK	http://www.hyvar-project.eu/
INPUT	ICT-07	RIA	NOK	http://www.input-project.eu/index.php
IOSTACK	ICT-07	RIA	NOK	http://iostack.eu/
LIFE	ICT-13	CSA	NOK	
MIKELANGELO	ICT-07	RIA	NOK	http://www.mikelangelo-project.eu/
MUSA	ICT-07	RIA	NOK	http://www.musa-project.eu/
MY-WAY	ICT-13	CSA	NOK	
PaaSword	ICT-07	RIA	OK	https://sites.google.com/site/paaswordeu/
RAPID	ICT-07	RIA	NOK	http://rapid-project.eu/
RePhrase	ICT-09	RIA	NOK	http://www.rephrase-ict.eu
SEP	ICT-13	CSA	NOK	
SERECA	ICT-07	RIA	NOK	http://www.serecaproject.eu/
SLALOM	ICT-07	CSA	OK	http://slalom-project.eu/
SLA-Ready	ICT-07	CSA	OK	http://www.sla-ready.eu/
SSICLOPS	ICT-07	RIA	NOK	https://ssiclops.eu/
STARTUP-SCALEUP	ICT-13	IA	NOK	
SUNFISH	ICT-07	RIA	NOK	http://www.supercloud-project.eu/
SUPERCLOUD	ICT-07	RIA	NOK	http://www.supercloud-project.eu/
SUPERSEDE	ICT-09	RIA	NOK	
SWITCH	ICT-09	RIA	OK	http://www.switchproject.eu/
TWIST DIGITAL	ICT-13	IA	NOK	
WeHubs	ICT-13	CSA	NOK	
WELCOME	ICT-13	IA	NOK	

Annex B: Dashboard to follow collaboration activities

CB-	What	Who	When	Comment
01	To present its outcome to people involved in SME's or start-up	OW2	Y1-Y3	For the whole duration of the project
02	To build collaboration with AppHub	OW2	Y1 to Y2	Same start date than CHOReVOLUTION
03	To build collaboration with Hola Cloud	CEFRIEL	Y1 to Y2	Same start date than CHOReVOLUTION
04	To build collaboration with SLA-Ready	CEFRIEL	Y1 to Y2	Same start date than CHOReVOLUTION
05	To build collaboration with SLALOM	CEFRIEL	Y1 to Y2	Same start date than CHOReVOLUTION
06	To build collaboration with ARCADIA	Softeco	Y1 to Y2	Same start date than CHOReVOLUTION
07	To build collaboration with Fiesta-IoT	Inria	Y1 to Y2	Same start date than CHOReVOLUTION
08	To build collaboration with CLARUS	TCS	Y1 to Y2	Same start date than CHOReVOLUTION
09	To build collaboration with CloudSocket	UDA	Y1 to Y2	Same start date than CHOReVOLUTION
10	To build collaboration with HyVar	Viktoria	Y1 to Y2	Same start date than CHOReVOLUTION
11	To build collaboration with PaaSword	TCS	Y1 to Y2	Same start date than CHOReVOLUTION
12	To build collaboration with SWITCH	CEFRIEL	Y1 to Y2	Same start date than CHOReVOLUTION
13	To find synergies with FI-Core	UDA	Y1 to Y2	Same start date than CHOReVOLUTION
14	Collaboration on security and on IoT fields with 5G-PPP program	TCS	Y1 to Y2	Same start date than CHOReVOLUTION
15	Collaboration with Alliance for the Internet of Things (AIOTI)	Inria	Y1	Main outcomes at the end of Y1, TCS will help (involved in AIOTI)
16	To identify and to attend in Net Futures conferences	OW2	Y1 to Y3	For the whole duration of the project
17	To build collaboration with ANIKETOS	Tirasa	Y1	Project already ended
18	To build collaboration with TAS3	TCS	Y1	Project already ended
19	To build collaboration with AU2EU	TCS	Y1 to Y2	Project ended at the end of Y1

20	Inria-CITRIS International Collaboration on Smart Cities Research	Inria	Y1 to Y2	

Annex C: Description of the selected projects provided by CORDIS website

CLARUS

Project reference: 644024
Funded under: H2020-EU.2.1.1.3.

A FRAMEWORK FOR USER CENTRED PRIVACY AND SECURITY IN THE CLOUD

From 2015-01-01 **to** 2018-01-01, ongoing project

Project details

Total cost:

EUR 4 193 548

EU contribution:

EUR 4 193 548

Coordinated in:

Spain

Topic(s):

- ICT-07-2014 - Advanced Cloud Infrastructures and Services

Call for proposal:

H2020-ICT-2014-1

Funding scheme:

RIA - Research and Innovation action

Objective

Although cloud computing offers many benefits, security issues such as confidentiality and privacy are still major concerns to those intending to migrate to the cloud. Traditional cloud security has been based on assurance to customers that cloud providers follow sound security practices. As a result, current security mechanisms are commonly located within the cloud platform, hence compelling customers to trust cloud providers. However, customers might be reluctant to outsource sensitive data due to lack of control over data storage and management. To reach its full potential, cloud computing needs solid security mechanisms that enhance trust in cloud computing by allowing cloud customers to have a greater control over the security and privacy of their data. Moreover, it is also necessary to consider countermeasures to ensure that vulnerabilities or attacks do not have a negative impact on cloud security and that applications continue to operate and provide a good level of service even during an attack.

The main objective of CLARUS is to enhance trust in cloud computing services by developing a secure framework for the storage and processing of data outsourced to the cloud that allows end users to monitor, audit and retain control of the stored data without impairing the functionality and cost-saving benefits of cloud services. The CLARUS solution will provide the end user with a dedicated proxy located in a trusted domain implementing security and privacy features towards the cloud provider. The proxy is intended to be deployed within the client computer, in a server within the user's domain, in an edge device (e.g. a router), or in any other location trusted by the user. CLARUS will also provide a set of security auditing services enabling the user to supervise the security operations performed by the CLARUS framework as well as other trust-enhancing features.

Coordinator

UNIVERSITAT ROVIRA I VIRGILI
Spain

Spain
EU contribution: EUR 603 750,55

Participants

MONTIMAGE EURL
France

France
EU contribution: EUR 535 250

AKKA INFORMATIQUE ET SYSTEMES
France

France
EU contribution: EUR 601 562,5

KATHOLIEKE UNIVERSITEIT LEUVEN
Belgium

Belgium
EU contribution: EUR 288 250

OFFIS EV
Germany

Germany
EU contribution: EUR 395 312,5

TRUST-IT SERVICES LTD
United Kingdom

United Kingdom
EU contribution: EUR 309 062,5

THALES SERVICES SAS
France

France
EU contribution: EUR 542 758,18

EURECOM
France

France
EU contribution: EUR 480 945,52

ROYAL HOLLOWAY AND BEDFORD NEW COLLEGE
United Kingdom

United Kingdom
EU contribution: EUR 316 968,75

FUNDACIO PRIVADA CLINIC PER A LA RECERCA BIOMEDICA
Spain

Spain
EU contribution: EUR 119 687,5

Last updated on 2015-06-02
Retrieved on 2015-07-09

Permalink: http://cordis.europa.eu/project/rcn/194136_en.html

CloudSocket

Project reference: 644690
Funded under: H2020-EU.2.1.1.3.

Business and IT-Cloud Alignment using a Smart Socket

From 2015-01-01 **to** 2018-01-01, ongoing project

Project details

Total cost:

EUR 4 084 850

EU contribution:

EUR 3 548 596

Coordinated in:

Austria

Topic(s):

- ICT-07-2014 - Advanced Cloud Infrastructures and Services

Call for proposal:

H2020-ICT-2014-1

Funding scheme:

RIA - Research and Innovation action

Objective

Business and IT Alignment is important challenge, as we are facing a dramatic change in the way we rely, depend and interact with ICT that influences our everyday life. Although “digital natives” will soon enter the workforce, there is still a huge gap between the business domain and ICT domain in terms of awareness, common understanding or expertise. This hampers the take-off of technology such as Cloud Computing. Hence, we are facing a competition, between global-market players who quicker succeed in changing business into the Cloud to raise ICT efficiency and reduce costs. This is particularly true for SMEs that have started to embrace virtualisation or at best IaaS offers but the exploding and dynamic market of components available on the PaaS or SaaS level demands for expertise and time typically not available at SMEs.
Business processes are commodity when defining business activities in human understandable way in form of “sequences of manual, semi-automatic or automated tasks with the aim to achieve the company’s goal”.
Previous work in plugIT mapped business processes on static ICT configurations available at a company’s site, assuming ICT is still mainly configured on platform or component level.
CloudSocket envisions the idea of “Business Process as a Service”, where domain-specific business processes like employee registration at social insurance, tax report, or legal verification are supported by workflows that optimally match the ICT support for the selected process. The ICT support is expected to be realized by available platforms or software components from PaaS or SaaS platforms.
CloudSocket introduces the concept BPaaS that fulfills the business process needs thanks to smart alignment techniques, packages this BPaaS as “extended Cloudlets” that are autonomously deployable and include adaptive rules to appropriately react in a multi-cloud environment by keeping SLAs and process-based billing. Hence, the vision is to “plug business” into the “Cloud”.

Coordinator

BOC ASSET MANAGEMENT GMBH
Austria

Austria
EU contribution: EUR 902 750

Participants

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Spain

Spain
EU contribution: EUR 423 438

YMENS TEAMNET SRL
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Romania
EU contribution: EUR 396 375

FHOSTER SRL
Italy

Italy
EU contribution: EUR 251 125

BWCON GMBH
Germany

Germany
EU contribution: EUR 458 883

MATHEMA SRL
Italy

Italy
EU contribution: EUR 323 125

UNIVERSITAET ULM
Germany

Germany
EU contribution: EUR 524 150

FOUNDATION FOR RESEARCH AND TECHNOLOGY HELLAS
Greece

Greece
EU contribution: EUR 268 750

FACHHOCHSCHULE NORDWESTSCHWEIZ
Switzerland

Switzerland
EU contribution: Not available

Last updated on 2015-06-02
Retrieved on 2015-07-09

Permalink: http://cordis.europa.eu/project/rcn/194235_en.html

SLA-Ready

Project reference: 644077
Funded under: H2020-EU.2.1.1.3.

SLA-Ready: Making Cloud SLAs readily usable in the EU private sector

From 2015-01-01 **to** 2017-01-01, ongoing project

Project details

Total cost:

EUR 679 936

EU contribution:

EUR 679 936

Coordinated in:

United Kingdom

Topic(s):

- ICT-07-2014 - Advanced Cloud Infrastructures and Services

Call for proposal:

H2020-ICT-2014-1

Funding scheme:

CSA - Coordination & support action

Objective

Today, whilst many organisations are reliant on cloud resources, contracts for cloud services often contain Service Level Agreements (SLAs) with technical & legal provisions that are inappropriate, difficult to understand &/or illegal. Similarly, the application of established data protection concepts can be problematic, with uncertainties as to what is regulated, who is responsible & which laws apply.
Building on the work conducted by EC SIG SLA, Certification & Code of Conduct, ETSI CSC, CSA WGs, ECP Steering Board, NIST, Gartner, SLA-Ready, delivers a reference model for Cloud SLAs & a set of best-practices & services to support cloud customers in the use of cloud SLAs through their life cycle. The latter will improve the uptake of cloud computing by private sector, while procuring services across the cloud market.
Other Outputs:
• support cloud customers via a dedicated, social repository of Cloud SLAs and supporting services to ensure the acquisition, operation and termination of cloud services fulfilling specified requirements;
• provide an active contribution to relevant SDOs like: ISO/IEC 19086.
• engage & ensure coordinated, global collaborations with e.g., NIST RATAX and the CSA SLA WG for a collaborative, international approach;
• Provide 4 engaging practical user friendly tutorials to end-users,
• Showcase real efforts of the common reference model implementation in Europe.
The consortium is lean, complementary & strong: TRUST-IT, a prime mover in cloud computing landscape ensures effective coordination, digital marketing & SDO liaisons; CSA a leading, global player in the arena of cloud security; TUDA, brings direct expertise on techniques & frameworks to operate with cloud SLAs; Arthur's Legal represents IT, ISP, software, CSP, IoT & IT service vendors, end-users in their legal life cycle. Numergy offers cloud services to public & private organizations. SLA-READY has a pragmatic & actionable Advisory Board (AB) made up of key opinion leaders.

Coordinator

TRUST-IT SERVICES LTD
United Kingdom

United Kingdom
EU contribution: EUR 201 376

Participants

CLOUD SECURITY ALLIANCE (EUROPE) LBG
United Kingdom

United Kingdom
EU contribution: EUR 182 000

TECHNISCHE UNIVERSITAET DARMSTADT
Germany

Germany
EU contribution: EUR 160 012

ARTHUR'S LEGAL BV
Netherlands

Netherlands
EU contribution: EUR 57 500

NUMERGY SAS
France

France
EU contribution: EUR 79 048

Last updated on 2015-05-06
Retrieved on 2015-07-09

Permalink: http://cordis.europa.eu/project/rcn/196621_en.html

ARCADIA

Project reference: 645372
Funded under: H2020-EU.2.1.1.3.

A NOVEL RECONFIGURABLE BY DESIGN HIGHLY DISTRIBUTED APPLICATIONS DEVELOPMENT PARADIGM OVER PROGRAMMABLE INFRASTRUCTURE

From 2015-01-01 **to** 2018-01-01, ongoing project

Project details

Total cost:

EUR 3 543 864

EU contribution:

EUR 3 543 864

Coordinated in:

Ireland

Topic(s):

- ICT-09-2014 - Tools and Methods for Software Development

Call for proposal:

H2020-ICT-2014-1

Funding scheme:

RIA - Research and Innovation action

Objective

Given the inability of Highly-Distributed-Application-Developers to foresee the changes as well as the heterogeneity on the underlying infrastructure, it is considerable crucial the design and development of novel software paradigms that facilitate application developers to take advantage of the emerging programmability of the underlying infrastructure and therefore develop Reconfigurable-by-Design applications. In parallel, it is crucial to design solutions that are scalable, support high performance, are resilient-to-failure and take into account the conditions of their runtime environment. Towards this direction, the ARCADIA project aims to design and validate a Novel Reconfigurable-By-Design Highly Distributed Applications Development Paradigm over Programmable Infrastructure. The proposed framework will rely on the development of an extensible Context Model which will be used by developers directly at the source-code level. Proper Context-Model will be assisted and validated by IDE-plugins (for many IDEs) in order to re-assure that the generated executable files contain meaningful semantics. According to ARCADIA's vision, the generated executables should be on-boarded by a Smart Controller which will undertake the tasks of translating annotations to optimal infrastructural configuration. Such a controller will enforce an optimal configuration to the registered programmable resources and will pro-actively adjust the configuration plan based on the Infrastructural State and the Application State. The Context-Model and the aforementioned ARCADIA toolset will be complemented by a Development Methodology that will assure that developed Highly Distributed Applications are Reconfigurable-By-Design. The framework is planned to be validated and evaluated on three use cases that will be deployed over testbeds that host heterogeneous programmable infrastructure.

Coordinator

NATIONAL UNIVERSITY OF IRELAND, GALWAY
Ireland

Ireland

EU contribution: EUR 544 375,25

Participants

STIFTELSEN SINTEF
Norway

Norway

EU contribution: EUR 625 738,75

TECHNISCHE UNIVERSITAET BERLIN
Germany

Germany

EU contribution: EUR 442 500

CONSORZIO NAZIONALE INTERUNIVERSITARIO PER LE TELECOMUNICAZIONI
Italy

Italy

EU contribution: EUR 320 500

UNIVERZA V LJUBLJANI
Slovenia

Slovenia

EU contribution: EUR 276 375

GIOUMPITEK MELETI SCHEDIASMOS YLOPOIISI KAI POLISI ERGON PLIROFORIKIS ETAIREIA PERIORISMENIS EFTHYNIS
Greece

Greece

EU contribution: EUR 409 500

WINGS ICT SOLUTIONS INFORMATION & COMMUNICATION TECHNOLOGIES EPE
Greece

Greece

EU contribution: EUR 341 750

MAGGIOLI SPA
Italy

Italy

EU contribution: EUR 295 000

ADITESS ADVANCED INTERGRATED TECHNOLOGY SOLUTIONS & SERVICES LTD
Cyprus

Cyprus

EU contribution: EUR 288 125

Last updated on 2015-05-05
Retrieved on 2015-07-09

Permalink: http://cordis.europa.eu/project/rcn/194315_en.html

HOLA CLOUD

Project reference: 645197
Funded under: H2020-EU.2.1.1.3.

Effective collaboration for European RD and Innovation in software, services and Cloud computing: Knowledge discovery and Roadmapping

From 2015-01-01 **to** 2017-01-01, ongoing project

Project details

Total cost:

EUR 793 463

EU contribution:

EUR 793 463

Coordinated in:

Spain

Topic(s):

- ICT-07-2014 - Advanced Cloud Infrastructures and Services

Call for proposal:

H2020-ICT-2014-1

Funding scheme:

CSA - Coordination & support action

Objective

HOLA CLOUD targets to establish effective mechanisms for efficient collaboration among the members of the software, services and Cloud computing community building on a decade of experiences acquired by people who are themselves core members of this community, and extends this collaboration to stakeholders who can turn the community knowledge into sustainable economic growth. Through a completely new take on scientific collaborations, researchers in the field will be given the opportunity not only to present their results, but they will be pushed to look into the future. The resulting scientific roadmap will be alloyed by database tools at the forefront of technology with federated results from past and present projects and social media into extended, searchable knowledge synthesising what Europe knows, and who knows it. This will enable companies, governments, and politicians to discover best practice solutions to their problems, and to identify future challenges that must be addressed to move European software intensive industries forward.

HOLA CLOUD will initiate an advanced conference series producing and revising an annual technology roadmap and providing an efficient venue for the members of the community to meet and exchange results and ideas for the future. To lower the barriers for industrial take-up, in particular with SMEs, HOLA CLOUD will organise a Hackademy for companies to create solutions to their problems together with the best European experts in the field. These events will be overarched by an advanced on-line platform and knowledge repository ensuring the persistent access to information for all stakeholders. All the HOLA CLOUD activities and results will be promoted and supported by an efficient communication strategy involving an audience way beyond the normal constituency of the software, services and cloud computing domain with the aim to establish a European Cloud based eco-system that will endure after the end of the project.

Coordinator

Research, Technology Development and Innovation, S.L.
Spain

Spain

EU contribution: EUR 78 750

Participants

UNIVERSITETET I OSLO
Norway

Norway

EU contribution: EUR 95 938

INSTITUTE OF COMMUNICATION AND COMPUTER SYSTEMS
Greece

Greece

EU contribution: EUR 100 000

LINKNOVATE SCIENCE SL
Spain

Spain

EU contribution: EUR 146 250

PROMOTER SRL
Italy

Italy

EU contribution: EUR 206 000

VERENIGING EUROCRIS
Netherlands

Netherlands

EU contribution: EUR 101 875

UNIVERSITAET ULM
Germany

Germany

EU contribution: EUR 64 650

Last updated on 2015-05-05
Retrieved on 2015-07-09

Permalink: http://cordis.europa.eu/project/rcn/194290_en.html

AppHub

Project reference: 645096
Funded under: H2020-EU.2.1.1.3.

AppHub, the European Open Source Marketplace

From 2015-01-01 **to** 2017-01-01, ongoing project

Project details

Total cost:

EUR 849 260

EU contribution:

EUR 849 260

Coordinated in:

Germany

Topic(s):

- ICT-07-2014 - Advanced Cloud Infrastructures and Services

Call for proposal:

H2020-ICT-2014-1

Funding scheme:

CSA - Coordination & support action

Objective

Many software engineering and cloud computing are developed in open source in order to implicitly avoid the curse of the European science paradox -- we are good at science but poor at exploitation – but fail because they lack adequate support and strategy. Open source provides an efficient framework for cooperation and IP management and that makes it indeed a powerful enabler for collaborative innovation. It is wrong however to assume that making the source available automatically attracts contributors and grants immediate market access. Open source as a convenient process is not the same as open source as a business strategy.
The aim of this project is to support the market outreach strategies of EU-supported open source by launching AppHub, the European open source market place. AppHub is a service platform that will help the market to seamlessly identify, position and implement the software outcomes of these projects. The partners that will develop, run and promote AppHub over this two-year project and beyond combine unparalleled expertise in open source community management, EU research projects and a breakthrough technology in software asset management.

Coordinator

FRAUNHOFER GESELLSCHAFT ZUR FORDERUNG DER ANGEWANDTEN FORSCHUNG EV
Germany

Germany

EU contribution: EUR 246 341,25

Participants

USHARESOFT
France

France

EU contribution: EUR 376 460

OW2 Consortium Association
France

France

EU contribution: EUR 226 458,75

Last updated on 2015-05-05
Retrieved on 2015-07-09

Permalink: http://cordis.europa.eu/project/rcn/194279_en.html

PaaSword

Project reference: 644814
Funded under: H2020-EU.2.1.1.3.

A Holistic Data Privacy and Security by Design Platform-as-a-Service Framework Introducing Distributed Encrypted Persistence in Cloud-based Applications

From 2015-01-01 **to** 2018-01-01, ongoing project

Project details

Total cost:

EUR 4 461 513

EU contribution:

EUR 3 984 575

Coordinated in:

Germany

Topic(s):

- ICT-07-2014 - Advanced Cloud Infrastructures and Services

Call for proposal:

H2020-ICT-2014-1

Funding scheme:

RIA - Research and Innovation action

Objective

The vision of PaaSword is to maximize and fortify the trust of individual, professional and corporate customers to Cloud - enabled services and applications, to safeguard both corporate and personal sensitive data stored on Cloud infrastructures and Cloud-based storage services, and to accelerate the adoption of Cloud computing technologies and paradigm shift from the European industry. Thus, PaaSword will introduce a holistic data privacy and security by design framework enhanced by sophisticated context-aware policy access models and robust policy access, decision, enforcement and governance mechanisms, which will enable the implementation of secure and transparent Cloud-based applications and services that will maintain a fully distributed and totally encrypted data persistence layer, and, thus, will foster customers' data protection, integrity and confidentiality, even in the case wherein there is no control over the underlying third-party Cloud resources utilized.
In particular, PaaSword intends not only to adopt the CSA Cloud security principles, but also to extend them by capitalizing on recent innovations on (a) distributed encryption and virtual database middleware technologies that introduce a scalable secure Cloud database abstraction layer combined with sophisticated distribution and encryption methods into the processing and querying of data stored in the Cloud; (b) context-aware access control that incorporate the dynamically changing contextual information into novel group policies implementing configurable context-based access control policies and context-dependent access rights to the stored data at various different levels; and (c) policy governance, modelling and annotation techniques that allows application developers to specify an appropriate level of protection for the application’s data, while the evaluation of whether an incoming request should be granted access to the target data takes dynamically place during application runtime.

Coordinator

CAS SOFTWARE AG
Germany

Germany
EU contribution: EUR 641 875

Participants

SICS Swedish ICT AB
Sweden

Sweden
EU contribution: EUR 617 750

KARLSRUHER INSTITUT FUER TECHNOLOGIE
Germany

Germany
EU contribution: EUR 636 700

INSTITUTE OF COMMUNICATION AND COMPUTER SYSTEMS
Greece

Greece
EU contribution: EUR 322 750

INTRASOFT INTERNATIONAL SA
Luxembourg

Luxembourg
EU contribution: EUR 615 000

KENTRO EREVNON NOTIOANATOLIKIS EVROPIS ASTIKI MI KERDOSKOPIKI ETAIREIA
Greece

Greece
EU contribution: EUR 325 000

SIXSQ SARL
Switzerland

Switzerland
EU contribution: Not available

GIOUMPITEK MELETI SCHEDIASMOS YLOPOIISI KAI POLISI ERGON PLIROFORIKIS ETAIREIA PERIORISMENIS EFTHYNIS
Greece

Greece
EU contribution: EUR 325 000

SIEMENS SRL
Romania

Romania
EU contribution: EUR 235 000

SINGULARLOGIC CYPRUS LTD
Cyprus

Cyprus
EU contribution: EUR 265 500

Last updated on 2015-05-05
Retrieved on 2015-07-09

Permalink: http://cordis.europa.eu/project/rcn/194247_en.html

HyVar

Project reference: 644298
Funded under: H2020-EU.2.1.1.3.

Scalable Hybrid Variability for Distributed Evolving Software Systems

From 2015-02-01 **to** 2018-02-01, ongoing project

Project details

Total cost:

EUR 2 793 870

EU contribution:

EUR 2 793 870

Coordinated in:

Italy

Topic(s):

- ICT-09-2014 - Tools and Methods for Software Development

Call for proposal:

H2020-ICT-2014-1

Funding scheme:

RIA - Research and Innovation action

Objective

HyVar proposes a development framework for continuous and individualized evolution of distributed software applications running on remote devices in heterogeneous environments. The framework will combine variability modeling from software product lines with formal methods and software upgrades, and be integrated in existing software development processes. HyVar's objectives are (O1) to develop a Domain Specific Variability Language (DSVL) and tool chain to support software variability for such applications; (O2) to develop a cloud infrastructure that exploits software variability as described in the DSVL to track the software configurations deployed on remote devices and to enable (i) the collection of data from the devices to monitor their behavior; and (ii) secure and efficient customized updates; (O3) to develop a technology for over-the-air updates of distributed applications which enables continuous software evolution after deployment on complex remote devices that incorporate a system of systems; and (O4) to test HyVar's approach as described in the above objectives in an industry-led demonstrator to assess in quantifiable ways its benefits. HyVar goes beyond the state-of-the-art by proposing hybrid variability; i.e., the automatic generation and deployment of software updates combines the variability model describing possible software configurations with sensor data collected from the device. HyVar's scalable cloud infrastructure will elastically support monitoring and customization for numerous application instances. Software analysis will exploit the structure of the variability models. Upgrades will be seamless and sufficiently nonintrusive to enhance the user quality experience, without compromising the robustness, reliability and resilience of the distributed application instances. To maximize impact and innovation, the consortium balances carefully selected academic and industrial partners ensuring both technology pull and push.

Coordinator

SANTER REPLY SPA
Italy

Italy

EU contribution: EUR 511 250

Participants

UNIVERSITA DEGLI STUDI DI TORINO
Italy

Italy

EU contribution: EUR 386 750

TECHNISCHE UNIVERSITAT BRAUNSCHWEIG
Germany

Germany

EU contribution: EUR 495 000

UNIVERSITETET I OSLO
Norway

Norway

EU contribution: EUR 703 750

ATBROX AS
Norway

Norway

EU contribution: EUR 397 120

MAGNETI MARELLI S.P.A.
Italy

Italy

EU contribution: EUR 300 000

Last updated on 2015-05-05
Retrieved on 2015-07-09

Permalink: http://cordis.europa.eu/project/rcn/194185_en.html

SLALOM

Project reference: 644270
Funded under: H2020-EU.2.1.1.3.

Service Level Agreement - Legal and Open Model

From 2015-01-01 **to** 2016-07-01, ongoing project

Project details

Total cost:

EUR 702 813

EU contribution:

EUR 702 813

Coordinated in:

Spain

Topic(s):

- ICT-07-2014 - Advanced Cloud Infrastructures and Services

Call for proposal:

H2020-ICT-2014-1

Funding scheme:

CSA - Coordination & support action

Objective

SLALOM is a support action tackling the complexity of cloud computing SLAs and contracts through standardisation of the SLA and contract terms and a reference model for SLA management. In doing so it will support the adoption of cloud (SLA complexity is an identified barrier to adoption) and support the exploitation of results from the cloud and SLA research communities, effectively by factoring in advances from the research sector into the SLALOM legal and technical models which will be promoted as industry standards.

The project will involve interaction with policy makers, cloud providers, research projects and cloud adopters from various areas. There will be significant interaction with the policy groups set up under the European Cloud Partnership and the working groups of the research community. The project will run for 18 months, focusing on three phases – definition of the models; consensus building; and adoption.

Coordinator

ATOS SPAIN SA
Spain

Spain

EU contribution: EUR 221 813

Participants

INSTITUTE OF COMMUNICATION AND COMPUTER SYSTEMS
Greece

Greece

EU contribution: EUR 125 000

STUDIO LEGALE BIRD & BIRD
Italy

Italy

EU contribution: EUR 134 500

UNIVERSITY OF PIRAEUS RESEARCH CENTER
Greece

Greece

EU contribution: EUR 120 000

CLOUD INDUSTRY FORUM LIMITED
United Kingdom

United Kingdom

EU contribution: EUR 101 500

Last updated on 2015-05-05
Retrieved on 2015-07-09

Permalink: http://cordis.europa.eu/project/rcn/194180_en.html

BEACON

Project reference: 644048
Funded under: H2020-EU.2.1.1.3.

Enabling Federated Cloud Networking

From 2015-02-01 **to** 2017-08-01, ongoing project

Project details

Total cost:

EUR 3 570 250

EU contribution:

EUR 3 570 250

Coordinated in:

Belgium

Topic(s):

- ICT-07-2014 - Advanced Cloud Infrastructures and Services

Call for proposal:

H2020-ICT-2014-1

Funding scheme:

RIA - Research and Innovation action

Objective

Cloud federation enables cloud providers to collaborate and share their resources to create a large virtual pool of resources at multiple network locations. Different types of federation architectures for clouds and datacenters have been proposed and implemented (e.g. cloud bursting, cloud brokering or cloud aggregation) with different level of resource coupling and interoperation among the cloud resources, from loosely coupled, typically involving different administrative and legal domains, to tightly coupled federation, usually spanning multiple datacenters within an organization. In both situations, an effective, agile and secure federation of cloud networking resources is key to impact the deployment of federated applications.
The main goal of this project is two-fold: research and develop techniques to federate cloud network resources, and to derive the integrated management cloud layer that enables an efficient and secure deployment of federated cloud applications. Our proposal will deliver a homogeneous virtualization layer, on top of heterogeneous underlying physical networks, computing and storage infrastructures, providing enablement for automated federation of applications across different clouds and datacenters.
The project is fully committed to open source software. Cloud networking aspects will be based on OpenDaylight, a collaborative project under The Linux Foundation, and specifically we will leverage and extend the OpenDOVE project with new rich inter-cloud APIs to provision cross-site virtual networks overlays.
The new inter-cloud network capabilities will be leveraged by existing open source cloud platforms, OpenNebula and OpenStack, to deploy multi-cloud applications. In particular, different aspects of the platforms will be extended to accommodate the federated cloud networking features like multi-tenancy, federated orchestration of networking, compute and storage management or the placement and elasticity of the multi-cloud applications.

Coordinator

CENTRE D EXCELLENCE EN TECHNOLOGIESDE L INFORMATION ET DE LA COMMUNICATION ASBL
Belgium
Belgium
EU contribution: EUR 658 225

Participants

UNIVERSIDAD COMPLUTENSE DE MADRID
Spain
Spain
EU contribution: EUR 392 500

IBM ISRAEL - SCIENCE AND TECHNOLOGY LTD
Israel
Israel
EU contribution: EUR 842 500

C12G LABS SL
Spain
Spain
EU contribution: EUR 435 625

Flexiant Limited
United Kingdom
United Kingdom
EU contribution: EUR 502 500

UNIVERSITA DEGLI STUDI DI MESSINA
Italy
Italy
EU contribution: EUR 390 625

LUFTHANSA SYSTEMS AG
Germany
Germany
EU contribution: EUR 348 275

Last updated on 2015-05-05
Retrieved on 2015-07-09

Permalink: http://cordis.europa.eu/project/rcn/194143_en.html

SWITCH

Project reference: 643963
Funded under: H2020-EU.2.1.1.3.

Software Workbench for Interactive, Time Critical and Highly self-adaptive cloud applications

From 2015-02-01 **to** 2018-02-01, ongoing project

Project details

Total cost:

EUR 2 922 500

EU contribution:

EUR 2 922 500

Coordinated in:

Netherlands

Topic(s):

- ICT-09-2014 - Tools and Methods for Software Development

Call for proposal:

H2020-ICT-2014-1

Funding scheme:

RIA - Research and Innovation action

Objective

The SWITCH project (Software Workbench for Interactive, Time Critical and Highly self-adaptive Cloud applications) addresses the urgent industrial need for developing and executing time critical applications in Clouds. Time critical applications such as disaster early warning, collaborative communication and live event broadcasting can only realise their expected business value when they meet critical requirements for performance and user experience. The very high requirements on network and computing services, particularly for well-tuned software architecture with sophisticated data communication optimisation, mean that development of such time critical applications is often customised to dedicated infrastructure, and system performance is difficult to maintain when infrastructure changes. This fatal weakness in the existing architecture and software tools yields very high development cost, and makes it difficult fully to utilize the virtualised, programmable services provided by networked Clouds to improve system productivity. SWITCH aims at improving the existing development and execution model of time critical applications by introducing a novel conceptual model (application-infrastructure co-programming and control model), in which application QoS/QoE, together with the programmability and controllability of the Cloud environments, can all be included in the complete lifecycle of applications. Based on this conceptual model, SWITCH provides an interactive environment for developing applications and controlling their execution, a real-time infrastructure planner for deploying applications in Clouds, and an autonomous system adaptation platform for monitoring and adapting system behaviour. The SWITCH consortium has well-balanced partners with complementary expertise from both academic and industrial backgrounds. By demonstrating the software using diverse use cases, the consortium specifically aims at exploitation of the business potential of the SWITCH results.

Coordinator

UNIVERSITEIT VAN AMSTERDAM
Netherlands

Netherlands

EU contribution: EUR 779 375

Participants

WELLNESS TELECOM SL
Spain

Spain

EU contribution: EUR 331 875

CARDIFF UNIVERSITY
United Kingdom

United Kingdom

EU contribution: EUR 548 750

UNIVERZA V LJUBLJANI
Slovenia

Slovenia

EU contribution: EUR 413 750

BEIA CONSULT INTERNATIONAL SRL
Romania

Romania

EU contribution: EUR 354 375

MOG TECHNOLOGIES SA
Portugal

Portugal

EU contribution: EUR 494 375

Last updated on 2015-05-05
Retrieved on 2015-07-09

Permalink: http://cordis.europa.eu/project/rcn/194122_en.html