

Cluster of Cloud related actions



**Novel approaches and technologies for
Cloud resource and service management**

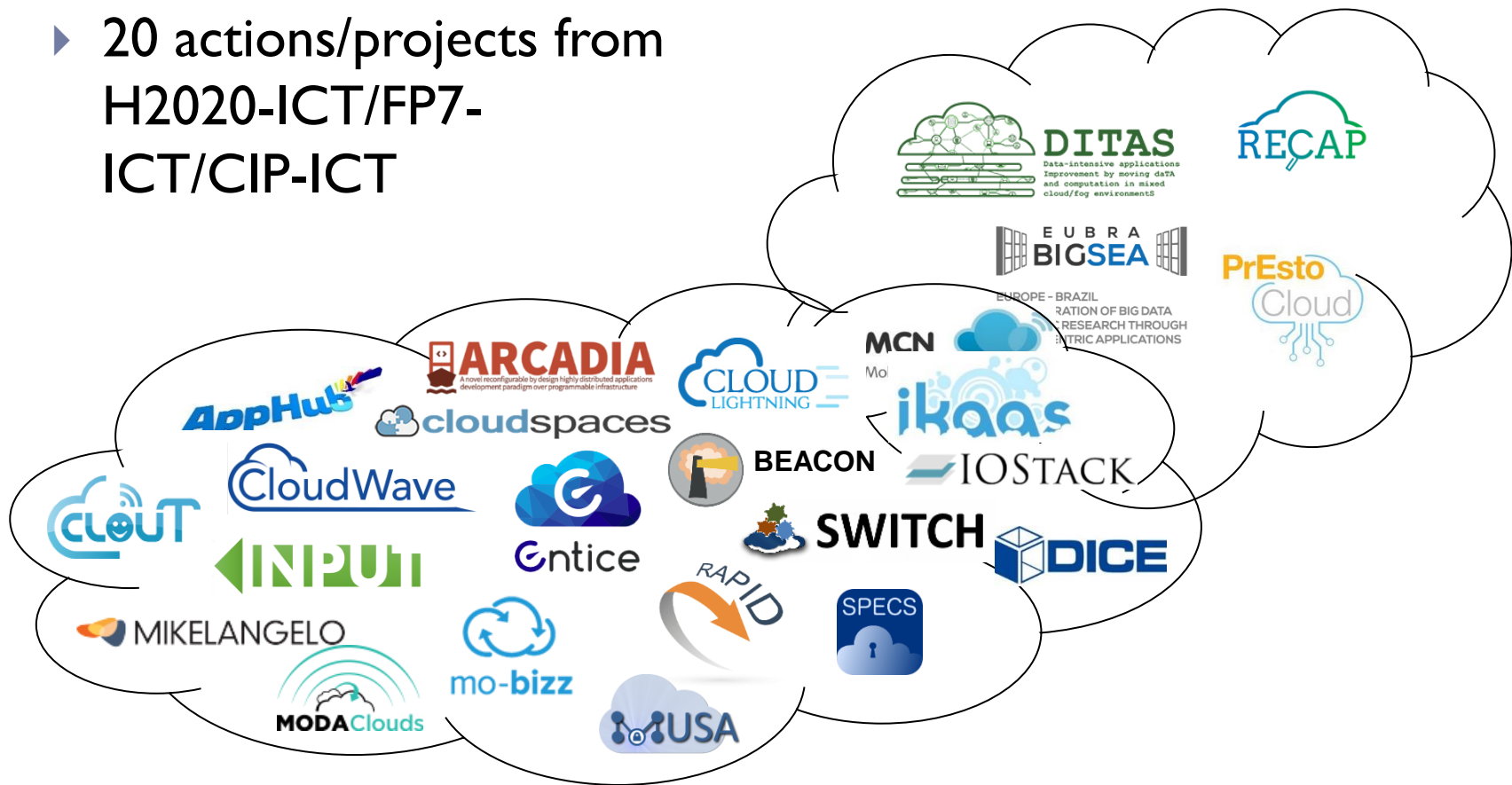
eucloudclusters.wordpress.com/new-approaches-for-infrastructure-services

Cluster membership



- ▶ Started in June 2015
- ▶ 20 actions/projects from H2020-ICT/FP7-ICT/CIP-ICT

- ▶ 4 recent requests



Cluster Objective



Forum
for discussing
the current research and innovation challenges
encountered at infrastructure-as-a-service level
and generated by the desire
to improve
the user experiences
and the efficient use of the available resources



Goals



- ✓ define a **map of the challenges**
related to the group topics & approaches /actions
 - ✓ identify **complementarities and synergies**
for collaboration & results adoptions by other actions
 - ✓ identify **new challenges**
to influence the new research agendas by providing recommendations
 - ✓ organisation of **common dissemination actions** like
common publications (e.g. articles, white papers)
trainings and workshops
-



Documents



- ▶ **Map of challenges**, Oct 4, 2015
- ▶ **Recommendations for the WPI8-19**, Dec 24, 2015, based on a questionnaire from Nov 2015
- ▶ **White paper**, Apr 15, 2016



MAP OF
CHALLENGES



RECOMMENDATIONS
FOR THE
WORKPROGRAMME
2018-2019
OF H2020-ICT



WHITE PAPER

Examples of joint events



- ▶ **MICAS 2015**, 21 Sept 2015, 1 tutorial, 6 action presentations
- ▶ **Booth at NetFuture 2016**, 20 Apr 2016



Examples of joint papers/vols



- ▶ **Paper at Closer 2016**, 24 Apr 2016, 5 actions
- ▶ **Special Issue of Scalable Computing Journal**, 11 Oct 2016, 5 actions

On the Next Generations of Infrastructure-as-a-Services

Dana Petcu¹, Maria Fazio², Radu Prodan³, Zhiming Zhao⁴ and Massimiliano Rak⁵

¹*Institute e-Austria and Computer Science Department, West University of Timișoara, 4 V. Părvan, Timișoara, Romania*

²*Dicieama Department, University of Messina, 98166 Sant'Agata, Messina, Italy*

³*Institute for Computer Science, University of Innsbruck, 21a Technikerstrasse, Innsbruck, Austria*

⁴*System and Network Engineering, University of Amsterdam, 904 Science Park, Amsterdam, Netherlands*

⁵*Department of Industrial Engineering and Information, Second University of Naples, 29 Sede di via Roma, Aversa, Italy*

Keywords: Infrastructure-as-a-Service, Surveys, Previsions.

Abstract: Following the wide adoption by industry of the cloud computing technologies, we can talk about a second generation of cloud services and products that are currently under design phase. However, it is not yet clear how the third generation of cloud products and services of the next decade will look like, especially at the delivery level of Infrastructure-as-a-Service. In order to answer at least partially to such a challenging question, we initiated a literature overview and two surveys involving the members of a cluster of European research and innovation actions. The results are interpreted in this paper and a set of topics of interest for the third generation are identified.

1 INTRODUCTION

see what the third generation of Cloud products will bring out-of-the-box, as well when the user adoption

Scalable Computing: Practice and Experience

Volume 17, Number 4, December 2016

TABLE OF CONTENTS

SPECIAL ISSUE ON NEW APPROACHES FOR INFRASTRUCTURE SERVICES:

Introduction to the Special Issue	iii
SLA-based Secure Cloud Application Development <i>Valentina Casola, Alessandra De Benedictis, Massimiliano Rak, Umberto Villano</i>	271
Impact of Single Parameter Changes on Ceph Cloud Storage Performance <i>Stefan Meyer, John P. Morrison</i>	285
Multi-objective Middleware for Distributed VMI Repositories in Federated Cloud Environment <i>Dragi Kimovski, Nishant Saurabh, Vlado Stankovski, Radu Prodan</i>	299
Architecture of a Scalable Platform for Monitoring Multiple Big Data Frameworks <i>Gabriel Iuhasz, Daniel Pop, Ioan Drăgan</i>	313
Exposing HPC services in the Cloud: the CloudLightning Approach <i>Ioan Drăgan, Teodor-Florin Fortiș, Marian Neagul</i>	323

Annual report from Aug 2016



1. Introduction	3
1.1 Aim.....	3
1.2 Scope	3
1.3 Organisation	3
2. NATRES organisation.....	4
2.1 Initiation	4
2.2 Establishing the topics of collaboration.....	4
2.3 Collaboration support	5
2.4 Participants	5
2.5 Timeline.....	6
2.6 Shared information in virtual space.....	6
2.7 Meeting dates.....	7
3. NATRES public documents	8
3.1 List of public documents	8
3.2 Map of challenges.....	8
3.3 Recommendations for the WP18/19.....	9
3.4 White paper	9
4. NATRES dissemination	11
4.1 List of dissemination venues	11
4.2 Dissemination documents.....	11
5. Lesson learned.....	15
5.1 Organisation	15
5.2 Impact.....	15

Next steps

- ▶ **Expectation:**
 - ▶ new actions to take over the initiative & leadership
- ▶ **To discuss in the after-noon meeting:**
 - ▶ Presentation of the achievements of the oldies
 - ▶ Presentation of the goals of the newiests
 - ▶ Together redefine:
 - ▶ New „cycle”?
 - ▶ Maintain the goals?
 - ▶ New type of outputs?
 - ▶ Change the organisation?
 - ▶ Who will lead the initiative?

More infos



- ▶ **Web site with the documents:**

<https://eucloudclusters.wordpress.com/new-approaches-for-infrastructure-services>



- ▶ **Contacts:**

- ▶ **Dana Petcu**, Dana.Petcu@e-uvt.ro
- ▶ **Maria Tsakali**, Maria.Tsakali@ec.europe.eu

**You are expected in River 6
for NATRES meeting!**

