

DOSSIER-Cloud

DEVOPS-BASED SOFTWARE ENGINEERING FOR THE CLOUD

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Deliverable D4.1

**Devops Automation Training Content
(Talks, Lectures, Seminars)**

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4.0	30/01/2018	Michalis Pingos, Nicolas Charalambous, Spyros Loizou	Corrections
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10.0	05/04/2018	Prof. Andreas Andreou	Final Formal Review & Approval
11.0	09/04/2018	Luciano Baresi, Mike Papazoglou	Approved final version

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1. Introduction

1.1 Purpose

This document describes the presentations and other content given during lectures, talks or seminars for training purposes, delivered by the experts from the University of Tilburg (UvT) and the Politecnico di Milano (POLIMI) to members of the Cyprus University of Technology (CUT) on Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration.

This deliverable is part of Work Package 4 (WP4) that describes the actions to enable successful transfer of knowledge from the leading institutions to CUT for luxuriating its knowledge base on technical issues of Automatic synthesis of Cloud services to build larger applications and Composition of Cloud services residing at multiple distributed environments.

It should be noted that since the first round of site visits was completed for the previous WPs, during some of the visits of the second round the teams (leading and widening) concentrated more on exchanging research ideas, brainstorming, and discussing about how to tackle different research problems identified through the meetings. Therefore, the training material in this deliverable is limited compared to previous ones.

1.2 Definitions, Acronyms, and Abbreviations

CUT: Cyprus University of Technology

UvT: University of Tilburg

POLIMI: Politecnico di Milano

VU: Vrije Universiteit Amsterdam

1.3 Overview

The rest of this document is structured as follows: Section 2 describes the training content delivered by members of POLIMI, while section 3 presents the training material covered by staff of UvT. Sections 4 includes the content of the Workshop performed in Italy. Sections 5, 6 and 7 describe the content delivered during the Workshop and the Summer School (part A' and part B') organized in Cyprus, respectively. Finally, Section 8 concludes this document.

2. POLIMI Site Visits

2.1 First Site Visit (August 28-30, 2017)

During the first site visit of the second series of site visits in Milan, Italy, members from the CUT group attended several presentations given by the POLIMI group as well participated in discussions related to the topic of WP4 1. In particular, the general subject of these presentations and discussions was dealing with research challenges in microservices, containerization of cloud applications and the corresponded metrics, and DevOps strategies with social software engineering.

2.1.1 Day One

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	28/08/2017	Time:	14:00-16:00
Facilitator:		Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description

Discussion on recommendations for microservices synthesis

2. Attendees

Name	Department/Division	E-mail	Phone
Panayiotis Christodoulou, PhD Student	CUT / Cyprus	panayiotis.christodoulou@cut.ac.cy	
Giovanni Quattrocchi, PhD Candidate	POLIMI / Italy	giovanni.quattrocchi@polimi.it	

Prof. Luciano Baresi	luciano.baresi@polimi.it	luciano.baresi@polimi.it	
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3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Recommendations for microservices synthesis	Discussion		

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
microservices.pdf	Giovanni Quattrocchi, PhD Candidate

2.1.2 Day Two

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	29/08/2017	Time:	09:00-11:00
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description

Talk on recommendation engine for microservices suitability

2. Attendees

Name	Department/Division	E-mail	Phone
Panayiotis Christodoulou, PhD Student	CUT / Cyprus	panayiotis.christodoulou@cut.ac.cy	

Giovanni Quattrocchi, PhD Candidate	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
Prof. Luciano Baresi	POLIMI / Italy	luciano.baresi@polimi.it	
Martin Garriga, Post-doctoral Student	POLIMI / Italy	martin.garriga@polimi.it	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Recommendation engine for microservices suitability	Discussion		

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
microservices.pdf	Giovanni Quattrocchi, PhD Candidate

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	29/08/2017	Time:	11:30-13:30
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description

Discussion on research challenges related to recommendations for microservices synthesis

2. Attendees			
Name	Department/Division	E-mail	Phone
Panayiotis Christodoulou, PhD Student	CUT / Cyprus	panayiotis.christodoulou@cut.ac.cy	
Giovanni Quattrocchi, PhD Candidate	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
Martin Garriga, PhD	POLIMI / Italy	martin.garriga@polimi.it	

3. Training Content			
Topic	Type (lecture, discussion, ...)	Trainer	Time
Research challenges related to recommendations for microservices synthesis	Discussion		

4. Pre-work/Preparation (documents/handouts, reading material, etc.)	
Description	Prepared by
microservices2.pdf	Martin Garriga, PhD

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	29/08/2017	Time:	15:00-16:00
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description
Discussion on research challenges related to recommendations for microservices synthesis

2. Attendees			
Name	Department/Division	E-mail	Phone
Panayiotis Christodoulou, PhD Student	CUT / Cyprus	panayiotis.christodoulou@cut.ac.cy	
Giovanni Quattrocchi, PhD Student	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
Martin Garriga, PhD	POLIMI / Italy	martin.garriga@polimi.it	
Prof. Luciano Baresi	POLIMI / Italy	luciano.baresi@polimi.it	

3. Training Content			
Topic	Type (lecture, discussion, ...)	Trainer	Time
Research challenges related to recommendations for microservices synthesis	Discussion		

4. Pre-work/Preparation (documents/handouts, reading material, etc.)	
Description	Prepared by
microservices2.pdf	Martin Garriga, PhD

2.1.3 Day Three

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	30/08/2017	Time:	09:00-11:00

Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan
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1. Subject / Short Description

Brainstorming and discussion on a novel recommendation engine for microservices synthesis

2. Attendees

Name	Department/Division	E-mail	Phone
Panayiotis Christodoulou, PhD Student	CUT / Cyprus	panayiotis.christodoulou@cut.ac.cy	
Giovanni Quattrocchi, PhD Candidate	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
Martin Garriga, PhD	POLIMI / Italy	martin.garriga@polimi.it	
Prof. Luciano Baresi	POLIMI / Italy	luciano.baresi@polimi.it	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Novel recommendation engine for microservices synthesis	Discussion		

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
MicroServiceTaxonomy_WorkingDraft_V1.pdf	Martin Garriga, PhD

2.2 Second Site Visit (September 7-13, 2017)

Members from the CUT group participated in the second site visit at POLIMI. During this visit members from the POLIMI group presented their work that is related to software development and deployment for distributed applications. At first, a comprehensive introduction on the MODAClouds project was made, whereas in the second lecture, an approach for the management of resources in very large cloud platforms was described.

2.2.1 Day One

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	07/09/2017	Time:	09:00-09:30
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description

Initial Meeting

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Danilo Ardagna	POLIMI / Italy	danilo.ardagna@polimi.it	
Stefanos Manoli, MSc Student	CUT / Cyprus	sp.manoli@edu.cut.ac.cy	
Adonis Podinas, MSc Student	CUT / Cyprus	ak.podinas@edu.cut.ac.cy	
Maria Christodoulou, MSc Student	CUT / Cyprus	mk.papachristodoulou@edu.cut.ac.cy	

3. Training Content			
Topic	Type (lecture, discussion, ...)	Trainer	Time
Initial Meeting	Discussion		

4. Pre-work/Preparation (documents/handouts, reading material, etc.)	
Description	Prepared by

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	07/09/2017	Time:	09:30-11:00
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description
Cloud infrastructure

2. Attendees			
Name	Department/Division	E-mail	Phone
Athanasia Evangelinou, PhD	POLIMI / Italy	athanasia.evangelinou@polimi.it	
Stefanos Manoli, MSc Student	CUT / Cyprus	sp.manoli@cs.ucy.ac.cy	
Adonis Podinas, MSc Student	CUT / Cyprus	ak.podinas@edu.cut.ac.cy	
Maria Christodoulou, MSc Student	CUT / Cyprus	mk.papachristodoulou@edu.cut.ac.cy	

3. Training Content			
Topic	Type (lecture, discussion, ...)	Trainer	Time
Cloud infrastructure	Presentation	Athanasia Evangelinou, PhD	09:30-11:00

4. Pre-work/Preparation (documents/handouts, reading material, etc.)	
Description	Prepared by
Cloud infrastructure.pptx	Athanasia Evangelinou, PhD
https://cloudcomputing.ieee.org/publications/articles	Athanasia Evangelinou, PhD

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	07/09/2017	Time:	11:00-12:30
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description
Microservices and fuzzy cognitive maps

2. Attendees			
Name	Department/Division	E-mail	Phone
Martin Garriga, PhD	POLIMI / Italy	martin.garriga@polimi.it	
Stefanos Manoli, MSc Student	CUT / Cyprus	sp.manoli@cs.ucy.ac.cy	

Adonis Podinas, MSc Student	CUT / Cyprus	ak.podinas@edu.cut.ac.cy	
Maria Christodoulou, MSc Student	CUT / Cyprus	mk.papachristodoulou@edu.cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Microservices and fuzzy cognitive maps	presentation	Martin Garriga, PhD	11:00-12:30

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
ICSOC2017-MicroservicesMigration.pdf	Martin Garriga, PhD

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	07/09/2017	Time:	15:30-17:00
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description

Data migration across heterogeneous NoSQL databases in a big data context

2. Attendees			
Name	Department/Division	E-mail	Phone
Marco Scavuzzo, PhD Student	POLIMI / Italy	marco.scavuzzo@polimi.it	
Stefanos Manoli, MSc Student	CUT / Cyprus	sp.manoli@cs.ucy.ac.cy	
Adonis Podinas, MSc Student	CUT / Cyprus	ak.podinas@edu.cut.ac.cy	
Maria Christodoulou, MSc Student	CUT / Cyprus	mk.papachristodoulou@edu.cut.ac.cy	

3. Training Content			
Topic	Type (lecture, discussion, ...)	Trainer	Time
Data migration across heterogeneous NoSQL databases in a big data context	Presentation		

4. Pre-work/Preparation (documents/handouts, reading material, etc.)	
Description	Prepared by
https://www.politesi.polimi.it/bitstream/10589/135784/1/2017_09_PhD_Scavuzzo.pdf	Marco Scavuzzo, PhD Student

2.2.2 Day Two

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	08/09/2017	Time:	09:30-11:00
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description

Social Dept

2. Attendees

Name	Department/Division	E-mail	Phone
Damian Andrew Tamburri, Post-doctoral Student	POLIMI / Italy	damianandrew.tamburri@polimi.it	
Stefanos Manoli, MSc Student	CUT / Cyprus	sp.manoli@cs.ucy.ac.cy	
Adonis Podinas, MSc Student	CUT / Cyprus	ak.podinas@edu.cut.ac.cy	
Maria Christodoulou, MSc Student	CUT / Cyprus	mk.papachristodoulou@edu.cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Social Dept	Discussion		

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by

<https://www.gradiant.org/noticia/devops-business-ongoing-integration-docker-microservices-and-much-more/?lang=en>

Damian Andrew Tamburri, PhD

2.2.3 Day Three

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	11/09/2017	Time:	11:00-12:30
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description

Azure Tutorial

2. Attendees

Name	Department/Division	E-mail	Phone
Martin Garriga, PhD candidate	POLIMI / Italy	martin.garriga@polimi.it	
Stefanos Manoli, MSc Student	CUT / Cyprus	sp.manoli@cs.ucy.ac.cy	
Adonis Podinas, MSc Student	CUT / Cyprus	ak.podinas@edu.cut.ac.cy	
Maria Christodoulou, MSc Student	CUT / Cyprus	mk.papachristodoulou@edu.cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
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Azure Tutorial	Discussion	Martin Garriga, PhD candidate	
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4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
Azure Tutorial	Martin Garriga, PhD candidate

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	11/09/2017	Time:	15:30-17:00
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description

Elastic provisioning for big data apps

2. Attendees

Name	Department/Division	E-mail	Phone
Giovanni Quattrocchi, PhD Student	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
Stefanos Manoli, MSc Student	CUT / Cyprus	sp.manoli@cs.ucy.ac.cy	
Adonis Podinas, MSc Student	CUT / Cyprus	ak.podinas@edu.cut.ac.cy	
Maria Christodoulou, MSc Student	CUT / Cyprus	mk.papachristodoulou@edu.cut.ac.cy	

3. Training Content			
Topic	Type (lecture, discussion, ...)	Trainer	Time
Elastic provisioning for big data apps	Presentation	Giovanni Quattrocchi, PhD Student	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)	
Description	Prepared by
Elastic_provisioning.pdf	Giovanni Quattrocchi, PhD Student

2.2.4 Day Four

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	12/09/2017	Time:	11:00-12:30
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description
Edge computing

2. Attendees			
Name	Department/Division	E-mail	Phone
Prof. Danilo Ardagna	POLIMI / Italy	danilo.ardagna@polimi.it	

Stefanos Manoli, MSc Student	CUT / Cyprus	sp.manoli@cs.ucy.ac.cy	
Adonis Podinas, MSc Student	CUT / Cyprus	ak.podinas@edu.cut.ac.cy	
Maria Christodoulou, MSc Student	CUT / Cyprus	mk.papachristodoulou@edu.cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Further discussions on these topics: microservices, edge computing, IoT.	Discussion		

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
IoT and 5G Networks.pdf	Saeed Tajfar, PhD Student

2.2.5 Day Five

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	13/09/2017	Time:	11:30-13:00
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description

Project organization and future planning

2. Attendees			
Name	Department/Division	E-mail	Phone
Prof. Danilo Ardagna	POLIMI / Italy	danilo.ardagna@polimi.it	
Stefanos Manoli, MSc Student	CUT / Cyprus	sp.manoli@cs.ucy.ac.cy	
Adonis Podinas, MSc Student	CUT / Cyprus	ak.podinas@edu.cut.ac.cy	
Maria Christodoulou, MSc Student	CUT / Cyprus	mk.papachristodoulou@edu.cut.ac.cy	

3. Training Content			
Topic	Type (lecture, discussion, ...)	Trainer	Time
Project organization and future planning	Discussion		

4. Pre-work/Preparation (documents/handouts, reading material, etc.)	
Description	Prepared by

3. UvT (Crete) Site Visits

3.1 First Site Visit (June 25- 30,2017)

Researchers from the CUT group participated in the first site visit, of the second series of visits, in Crete, Greece, in the context of a summer school organised there by members of the UvT group. During this visit several lectures were given by UvT members, as well as by other researchers and scholars that participated in this school. The lectures covered a wide range of aspects and research topics on cloud distributed systems, such as data science and intelligence sharing, big data and analytics.

3.1.1 Day One

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	25/06/2017	Time:	11:00-12:00
Facilitator:	UvT	Location:	Symposium and Summer School on Service-Oriented Computing. Crete, Greece

1. Subject / Short Description

Evolvability of service-based systems: implications for architecture, development and integration

2. Attendees

Name	Department/Division	E-mail	Phone
Demetris Christodoulou, MSc Student	CUT / Cyprus	d.christodoulou@edu.cut.ac.cy	
Adonis Podinas, MSc Student	CUT / Cyprus	ak.podinas@edu.cut.ac.cy	
Maria Christodoulou, MSc Student	CUT / Cyprus	mk.papachristodoulou@edu.cut.ac.cy	

3. Training Content			
Topic	Type (lecture, discussion, ...)	Trainer	Time
Evolvability of service-based systems: implications for architecture, development and integration	Presentation	Justus Bogner, PhD Student	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)	
Description	Prepared by
Evolvability.pdf	Justus Bogner, PhD Student

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	25/06/2017	Time:	12:00-13:00
Facilitator:	UvT	Location:	Symposium and Summer School on Service-Oriented Computing. Crete, Greece

1. Subject / Short Description
Design, Development and management of cloud-native parallel applications

2. Attendees			
Name	Department/Division	E-mail	Phone
Demetris Christodoulou, MSc Student	CUT / Cyprus	d.christodoulou@edu.cut.ac.cy	
Adonis Podinas, MSc Student	CUT / Cyprus	ak.podinas@edu.cut.ac.cy	

Maria Christodoulou, MSc Student	CUT / Cyprus	mk.papachristodoulou@edu.cut.ac.cy	
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3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Design, Development and management of cloud-native parallel applications	Presentation	Stefan Kehrer, PhD Student	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
paraleappscloud.pdf	Stefan Kehrer, PhD Student

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	25/06/2017	Time:	14:00-15:00
Facilitator:	UvT	Location:	Symposium and Summer School on Service-Oriented Computing. Crete, Greece

1. Subject / Short Description

Fine-grained selection and application of data mining algorithm

2. Attendees

Name	Department/Division	E-mail	Phone
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Demetris Christodoulou, MSc Student	CUT / Cyprus	d.christodoulou@edu.cut.ac.cy	
Adonis Podinas, MSc Student	CUT / Cyprus	ak.podinas@edu.cut.ac.cy	
Maria Christodoulou, MSc Student	CUT / Cyprus	mk.papachristodoulou@edu.cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Fine-grained selection and application of data mining algorithm	Lecture	Manuel Fritz, PhD Student	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
mining.pptx.	Manuel Fritz

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	25/06/2017	Time:	15:00-16:00
Facilitator:	UvT	Location:	Symposium and Summer School on Service-Oriented Computing. Crete, Greece

1. Subject / Short Description

A scalable database-indexing approach for Big Data heterogeneous workloads in services computing

2. Attendees

Name	Department/Division	E-mail	Phone
Demetris Christodoulou, MSc Student	CUT / Cyprus	d.christodoulou@edu.cut.ac.cy	
Adonis Podinas, MSc Student	CUT / Cyprus	ak.podinas@edu.cut.ac.cy	
Maria Christodoulou, MSc Student	CUT / Cyprus	mk.papachristodoulou@edu.cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
A scalable database-indexing approach for Big Data heterogeneous workloads in services computing	Presentation		

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
Indexing.pptx	Christian Riegger

3.1.2 Day Two

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	26/06/2017	Time:	09:30-10:30
Facilitator:	UvT	Location:	Symposium and Summer School on Service-Oriented Computing. Crete, Greece

1. Subject / Short Description

IoT pattern language and usage

2. Attendees

Name	Department/Division	E-mail	Phone
Demetris Christodoulou, MSc Student	CUT / Cyprus	d.christodoulou@edu.cut.ac.cy	
Adonis Podinas, MSc Student	CUT / Cyprus	ak.podinas@edu.cut.ac.cy	
Maria Christodoulou, MSc Student	CUT / Cyprus	mk.papachristodoulou@edu.cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
IoT pattern language and usage	Presentation		

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
1_01_LukasReinfurt_IoT-Pattern-Language-and-Use.pdf	Loukas Rainfurt

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	26/06/2017	Time:	11:00-12:00
Facilitator:	UvT	Location:	Symposium and Summer School on Service-Oriented Computing. Crete, Greece

1. Subject / Short Description

The state of the art in integration technology: an industry perspective

2. Attendees

Name	Department/Division	E-mail	Phone
Demetris Christodoulou, MSc Student	CUT / Cyprus	d.christodoulou@edu.cut.ac.cy	
Adonis Podinas, MSc Student	CUT / Cyprus	ak.podinas@edu.cut.ac.cy	
Maria Christodoulou, MSc Student	CUT / Cyprus	mk.papachristodoulou@edu.cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
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The state of the art in integration technology: an industry perspective	Lecture	Srinath Perera	
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4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
1_02_SrinathPerera_IntegrationStateOfArt.pdf	Srinath Perera

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	26/06/2017	Time:	14:45-15:30
Facilitator:	UvT	Location:	Symposium and Summer School on Service-Oriented Computing. Crete, Greece

1. Subject / Short Description

Effective identification and reuse of model pattern in service orchestration modeling

2. Attendees

Name	Department/Division	E-mail	Phone
Demetris Christodoulou, MSc Student	CUT / Cyprus	d.christodoulou@edu.cut.ac.cy	
Adonis Podinas, MSc Student	CUT / Cyprus	ak.podinas@edu.cut.ac.cy	
Maria Christodoulou, MSc Student	CUT / Cyprus	mk.papachristodoulou@edu.cut.ac.cy	

3. Training Content			
Topic	Type (lecture, discussion, ...)	Trainer	Time
Effective identification and reuse of model pattern in service orchestration modeling	Lecture	Florian Daniel	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)	
Description	Prepared by
1_03_FlorianDaniel.pdf	Florian Daniel

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	26/06/2017	Time:	15:30-16:00
Facilitator:	UvT	Location:	Symposium and Summer School on Service-Oriented Computing. Crete, Greece

1. Subject / Short Description
Big Data pipelines: towards a reference architecture

2. Attendees			
Name	Department/Division	E-mail	Phone
Demetris Christodoulou, MSc Student	CUT / Cyprus	d.christodoulou@edu.cut.ac.cy	
Adonis Podinas, MSc Student	CUT / Cyprus	ak.podinas@edu.cut.ac.cy	

Maria Christodoulou, MSc Student	CUT / Cyprus	mk.papachristodoulou@edu.cut.ac.cy	
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3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Big Data pipelines: towards a reference architecture	Lecture	Ekhetar Syed	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
1_04_EkhtiarSyed_Configurable-Data-Pipelines-Towards-a-Reference-Architecture.pdf	Ekhtiar Syed

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	26/06/2017	Time:	16:00-16:30
Facilitator:	UvT	Location:	Symposium and Summer School on Service-Oriented Computing. Crete, Greece

1. Subject / Short Description

Modeling and execution of data-aware choreographies

2. Attendees

Name	Department/Division	E-mail	Phone

Demetris Christodoulou, MSc Student	CUT / Cyprus	d.christodoulou@edu.cut.ac.cy	
Adonis Podinas, MSc Student	CUT / Cyprus	ak.podinas@edu.cut.ac.cy	
Maria Christodoulou, MSc Student	CUT / Cyprus	mk.papachristodoulou@edu.cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Modeling and execution of data-aware choreographics	Lecture	Michael Han	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
1_05_MichaelHahn_traDE_SummerSOC17.pdf	Michael Han

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	26/06/2017	Time:	17:00-18:00
Facilitator:	UvT	Location:	Symposium and Summer School on Service-Oriented Computing. Crete, Greece

1. Subject / Short Description

Access control for services

2. Attendees			
Name	Department/Division	E-mail	Phone
Demetris Christodoulou, MSc Student	CUT / Cyprus	d.christodoulou@edu.cut.ac.cy	
Adonis Podinas, MSc Student	CUT / Cyprus	ak.podinas@edu.cut.ac.cy	
Maria Christodoulou, MSc Student	CUT / Cyprus	mk.papachristodoulou@edu.cut.ac.cy	

3. Training Content			
Topic	Type (lecture, discussion, ...)	Trainer	Time
Access control for services	Lecture	Ulf Schreier	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)	
Description	Prepared by
1_06_UlfSchreier_AccessControlForServicesSummerSoc17.pdf	Ulf Schreier

3.1.3 Day Three

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	27/06/2017	Time:	09:30-10:30
Facilitator:	UvT	Location:	Symposium and Summer School on Service-Oriented Computing. Crete, Greece

1. Subject / Short Description

QoS in distributed data stores

2. Attendees

Name	Department/Division	E-mail	Phone
Demetris Christodoulou, MSc Student	CUT / Cyprus	d.christodoulou@edu.cut.ac.cy	
Adonis Podinas, MSc Student	CUT / Cyprus	ak.podinas@edu.cut.ac.cy	
Maria Christodoulou, MSc Student	CUT / Cyprus	mk.papachristodoulou@edu.cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
QoS in distributed data stores	Lecture	Costas Magoutis	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
Qos_soc.pptx	Costas Magoutis

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	27/06/2017	Time:	11:00-12:00
Facilitator:	UvT	Location:	Symposium and Summer School on Service-Oriented Computing. Crete, Greece

1. Subject / Short Description

Quality matters – sensor data management in large-scale infrastructures

2. Attendees

Name	Department/Division	E-mail	Phone
Demetris Christodoulou, MSc Student	CUT / Cyprus	d.christodoulou@edu.cut.ac.cy	
Adonis Podinas, MSc Student	CUT / Cyprus	ak.podinas@edu.cut.ac.cy	
Maria Christodoulou, MSc Student	CUT / Cyprus	mk.papachristodoulou@edu.cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Quality matters – sensor data management in large-scale infrastructures	Lecture	Daniela Nicklas	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
2_02_DanielaNicklas_sensordatamanagement.pdf	Daniela Nicklas

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	27/06/2017	Time:	15:30-16:00
Facilitator:	UvT	Location:	Symposium and Summer School on Service-Oriented Computing. Crete, Greece

1. Subject / Short Description

Deployment-time multi-cloud application security

2. Attendees

Name	Department/Division	E-mail	Phone
Demetris Christodoulou, MSc Student	CUT / Cyprus	d.christodoulou@edu.cut.ac.cy	
Adonis Podinas, MSc Student	CUT / Cyprus	ak.podinas@edu.cut.ac.cy	
Maria Christodoulou, MSc Student	CUT / Cyprus	mk.papachristodoulou@edu.cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Deployment-time multi-cloud application security	Lecture	Craig Sheridan	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
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Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	27/06/2017	Time:	17:30-18:00
Facilitator:	UvT	Location:	Symposium and Summer School on Service-Oriented Computing. Crete, Greece

1. Subject / Short Description

Unicorn: multi-cloud services and development, orchestration, deployments

2. Attendees

Name	Department/Division	E-mail	Phone
Demetris Christodoulou, MSc Student	CUT / Cyprus	d.christodoulou@edu.cut.ac.cy	
Adonis Podinas, MSc Student	CUT / Cyprus	ak.podinas@edu.cut.ac.cy	
Maria Christodoulou, MSc Student	CUT / Cyprus	mk.papachristodoulou@edu.cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Unicorn: multi-cloud services and development, orchestration, deployments	Lecture	Prof. Manos Papoutsakis	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
2_06_ManosPapoutsakis_UNICORN-1.pdf	Prof. Manos Papoutsakis

3.1.4 Day Four

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	28/06/2017	Time:	17:30-18:00
Facilitator:	UvT	Location:	Symposium and Summer School on Service-Oriented Computing. Crete, Greece

1. Subject / Short Description

Fundamentals of the Soc paradigm

2. Attendees

Name	Department/Division	E-mail	Phone
Demetris Christodoulou, MSc Student	CUT / Cyprus	d.christodoulou@edu.cut.ac.cy	
Adonis Podinas, MSc Student	CUT / Cyprus	ak.podinas@edu.cut.ac.cy	
Maria Christodoulou, MSc Student	CUT / Cyprus	mk.papachristodoulou@edu.cut.ac.cy	

3. Training Content			
Topic	Type (lecture, discussion, ...)	Trainer	Time
Fundamentals of the Soc paradigm	Lecture	Prof. Wolfgang Reisig	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)	
Description	Prepared by
3_01_WolfgangReisig_Fundamentals_of_the_SOC_paradigm.pdf	Prof. Wolfgang Reisig

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	28/06/2017	Time:	11:45-12:30
Facilitator:	UvT	Location:	Symposium and Summer School on Service-Oriented Computing. Crete, Greece

1. Subject / Short Description
A dynamic and distributed software architecture that manages cloud and fog resources proactively

2. Attendees			
Name	Department/Division	E-mail	Phone
Demetris Christodoulou, MSc Student	CUT / Cyprus	d.christodoulou@edu.cut.ac.cy	
Adonis Podinas, MSc Student	CUT / Cyprus	ak.podinas@edu.cut.ac.cy	

Maria Christodoulou, MSc Student	CUT / Cyprus	mk.papachristodoulou@edu.cut.ac.cy	
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3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
A dynamic and distributed software architecture that manages cloud and fog resources proactively	Lecture	Harald Schoeling	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
3_03_HaraldSchoening.pdf	Harald Schoeling

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	28/06/2017	Time:	15:30-16:00
Facilitator:	UvT	Location:	Symposium and Summer School on Service-Oriented Computing. Crete, Greece

1. Subject / Short Description

Partial execution of mashups plans during modeling time

2. Attendees

Name	Department/Division	E-mail	Phone
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Demetris Christodoulou, MSc Student	CUT / Cyprus	d.christodoulou@edu.cut.ac.cy	
Adonis Podinas, MSc Student	CUT / Cyprus	ak.podinas@edu.cut.ac.cy	
Maria Christodoulou, MSc Student	CUT / Cyprus	mk.papachristodoulou@edu.cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Partial execution of mashups plans during modeling time	Lecture	Pascal Helmer	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
3_04_PascalHirmer.pdf	Pascal Helmer

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	28/06/2017	Time:	16:00-16:30
Facilitator:	UvT	Location:	Symposium and Summer School on Service-Oriented Computing. Crete, Greece

1. Subject / Short Description

API governance support through structural analyses of REST-ful API

2. Attendees			
Name	Department/Division	E-mail	Phone
Demetris Christodoulou, MSc Student	CUT / Cyprus	d.christodoulou@edu.cut.ac.cy	
Adonis Podinas, MSc Student	CUT / Cyprus	ak.podinas@edu.cut.ac.cy	
Maria Christodoulou, MSc Student	CUT / Cyprus	mk.papachristodoulou@edu.cut.ac.cy	

3. Training Content			
Topic	Type (lecture, discussion, ...)	Trainer	Time
API governance support through structural analyse of REST-ful API	Lecture	Florian Haupt	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)	
Description	Prepared by
3_05_Florian-Haupt_REST.pdf	Florian Haupt

3.1.5 Day Five

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	29/06/2017	Time:	15:30-16:00
Facilitator:	UvT	Location:	Symposium and Summer School on Service-Oriented Computing. Crete, Greece

1. Subject / Short Description

Customization and provisioning of complex event processing using TOSCA

2. Attendees

Name	Department/Division	E-mail	Phone
Demetris Christodoulou, MSc Student	CUT / Cyprus	d.christodoulou@edu.cut.ac.cy	
Adonis Podinas, MSc Student	CUT / Cyprus	ak.podinas@edu.cut.ac.cy	
Maria Christodoulou, MSc Student	CUT / Cyprus	mk.papachristodoulou@edu.cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Customization and provisioning of complex event processing using TOSCA	Lecture	Ana Cristina Franco Da Silva	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
4_04_AnaCristinaFranco_Customization_and_Provisioning_of_CEP_TOSCA.pdf	MSc.Ana Cristina Franco Da Silva

3.1.6 Day Six

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	30/06/2017	Time:	09:30-10:30
Facilitator:	UvT	Location:	Symposium and Summer School on Service-Oriented Computing. Crete, Greece

1. Subject / Short Description

Osmotic computing: a step over cloud and edge computing leveraging microservices

2. Attendees

Name	Department/Division	E-mail	Phone
Demetris Christodoulou, MSc Student	CUT / Cyprus	d.christodoulou@edu.cut.ac.cy	
Adonis Podinas, MSc Student	CUT / Cyprus	ak.podinas@edu.cut.ac.cy	
Maria Christodoulou, MSc Student	CUT / Cyprus	mk.papachristodoulou@edu.cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Osmotic computing: a step over cloud and edge computing leveraging microservices	Lecture	Prof. Massimo Villari	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
Zeitschriftenartikel_2016_SD_Osmotic.pdf	Prof. Massimo Villari

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	30/06/2017	Time:	11:00-12:00
Facilitator:	UvT	Location:	Symposium and Summer School on Service-Oriented Computing. Crete, Greece

1. Subject / Short Description

Platform as a service – models and portability

2. Attendees

Name	Department/Division	E-mail	Phone
Demetris Christodoulou, MSc Student	CUT / Cyprus	d.christodoulou@edu.cut.ac.cy	
Adonis Podinas, MSc Student	CUT / Cyprus	ak.podinas@edu.cut.ac.cy	
Maria Christodoulou, MSc Student	CUT / Cyprus	mk.papachristodoulou@edu.cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
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Platform as a service – models and portability	Lecture	Prof. Guido Wirtz
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4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
sose14-towards-application-portability-in-paas.pdf	Prof. Guido Wirtz

3.2 Second Site Visit UvT (July 1-3,2017)

Researchers from the CUT group participated in the first site visit, of the second series visits, in UvT. During this visit a number of research collaboration activities took place between members from UvT, CUT and VU (Vrije Universiteit Amsterdam). The meetings covered a wide range of aspects and research topics on smart data systems and microservices architecture.

3.2.1 Day One

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	01/07/2017	Time:	17:00-19:00
Facilitator:	UvT	Location:	Amsterdam, The Netherlands

1. Subject / Short Description

Discussion on research perspectives in the areas covered in the workshop-brainstorming and planning for research papers.

2. Attendees

Name	Department/Division	E-mail	Phone
Prof.Mike Papazoglou	UvT / The Netherlands	mikep@uvt.nl	

Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy	
Constantinos Stylianou	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Discussion on research perspectives in the areas covered in the workshop-brainstorming and planning for research papers.	Discussion		

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by

3.2.2 Day Two

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	02/07/2017	Time:	09:00-11:00
Facilitator:	UvT	Location:	Amsterdam, The Netherlands

1. Subject / Short Description

Planning on research perspectives in the areas of distributed software engineering and software services

2. Attendees			
Name	Department/Division	E-mail	Phone
Prof.Mike Papazoglou	UvT / The Netherlands	mikep@uvt.nl	
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy	
Constantinos Stylianou	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	

3. Training Content			
Topic	Type (lecture, discussion, ...)	Trainer	Time
Planning on research perspectives in the areas of distributed software engineering and software services	Discussion		

4. Pre-work/Preparation (documents/handouts, reading material, etc.)	
Description	Prepared by

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	02/07/2017	Time:	11:00-13:00
Facilitator:	UvT	Location:	Amsterdam, The Netherlands

1. Subject / Short Description

Preparation for meeting with department of computer science, faculty of science, Vrije University Amsterdam, suggestions for future research actions and collaboration for future EU funding

2. Attendees

Name	Department/Division	E-mail	Phone
Prof.Mike Papazoglou	UvT / The Netherlands	mikep@uvt.nl	
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Preparation for meeting with department of computer science, faculty of science, Vrije University Amsterdam, suggestions for future research actions and collaboration for future EU funding	Discussion		

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
VU_QoSA_2015_architectural_tactics_catalog.pdf	Prof. Patricia Lago
VU_CACM_Lago et al. 2015 - Framing sustainability as a property of software quality.pdf	Prof. Patricia Lago

3.2.3 Day Three

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	03/07/2017	Time:	09:30-10:00
Facilitator:	UvT	Location:	Room P.423 Sciences building, 4th floor De Boelelaan 1105, 1081 HV Amsterdam, Netherlands

1. Subject / Short Description

Welcoming – department of Computer Science, Faculty of Science, Vrije Universiteit Amsterdam, Software and Services (S2) Research Group

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	
Prof. Patricia Lago	VU / The Netherlands	p.lago@vu.nl	
Prof. Ivano Malavolta	VU / The Netherlands	i.malavolta@vu.nl	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	03/07/2017	Time:	10:00-10:30
Facilitator:	UvT	Location:	Room P.423 Sciences building, 4th floor De Boelelaan 1105, 1081 HV Amsterdam, Netherlands

1. Subject / Short Description

Introduction to Dossier Cloud

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy	
Constantinos Stylianou	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	
Prof. Patricia Lago	VU / The Netherlands	p.lago@vu.nl	
Prof. Ivano Malavolta	VU / The Netherlands	i.malavolta@vu.nl	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
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Introduction to Dossier Cloud	Discussion	Prof. Andreas Andreou	
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4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
DossierCloud-Intro.pptx	Prof. Andreas Andreou

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	03/07/2017	Time:	11:00-13:00
Facilitator:	UvT	Location:	Room P.423 Sciences building, 4th floor De Boelelaan 1105, 1081 HV Amsterdam, Netherlands

1. Subject / Short Description

Talks/ lectures on "Software Services"

- Towards Recovering the Software Architecture of Microservice-based Systems
- MicroART: A Software Architecture Recovery Tool for Maintaining Microservice-based Systems
- Research on Architecting Microservices: Trends, Focus, and Potential for Industrial Adoption
- Characterizing the Contribution of Quality Requirements to Software Sustainability

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Talks/ lectures on "Software Services"	Discussion		

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
AMS_2017.pdf	Prof. Ivano Malavolta
ICSA_2017_tool.pdf	Prof. Ivano Malavolta
ICSA_2017.pdf	Prof. Patricia Lago
ivanolaccongres2017-171123133332.pdf	Prof. Ivano Malavolta
SoftwareSustainability.pdf	Prof. Patricia Lago

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	03/07/2017	Time:	13:00-14:00
Facilitator:	UvT	Location:	Room P.423 Sciences building, 4th floor De Boelelaan 1105, 1081 HV Amsterdam, Netherlands

1. Subject / Short Description

Summary closing – Discussion on future research collaboration

2. Attendees

Name	Department/Division	E-mail	Phone

Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy	
Constantinos Stylianou	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	
Prof. Patricia Lago	VU / The Netherlands	p.lago@vu.nl	
Prof. Ivano Malavolta	VU / The Netherlands	i.malavolta@vu.nl	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Summary closing – Discussion on future research collaboration	Discussion		

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by

3.3 Third Site Visit UvT (July 3-8,2017)

Researcher from the CUT group participated in the third site visit, of the second series visits, in UvT. During this visit researchers from CUT, UvT and Philips Lighting discussed the possibility of collaboration on various applied research areas in the context of Dossier-Cloud project.

3.3.1 Day One

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	03/07/2017	Time:	09:30-16:00

Facilitator:	UvT	Location:	Jheronimus Academy of Data Science Sint Janssingel 92 5211 DA 's-Hertogenbosch The Netherlands
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1. Subject / Short Description

Collaboration with Philips lighting research and Tilburg University: exploration of research subjects in the area of "Data pipelines", discussions, brainstorming ,talking of research challenges.

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Mike Papazoglou	UvT / The Netherlands	mikep@uvt.nl	
Maria Papachristodoulou, MSc Student	CUT / Cyprus	mk.papachristodoulou@edu.cyt.ac.cy	
Prof. Willem-Jan van den Heuvel	UvT / The Netherlands	w.j.a.m.vdnheuvel@tilburguniversity.edu	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Collaboration with Philips lighting research and Tilburg University: exploration of research subjects in the area of "Data pipelines", discussions, brainstorming ,talking of research challenges.	Discussion		

3.3.2 Day Two

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	04/07/2017	Time:	09:30-16:00
Facilitator:	UvT	Location:	Jheronimus Academy of Data Science Sint Janssingel 92 5211 DA 's-Hertogenbosch The Netherlands

1. Subject / Short Description

Collaboration with Philips lighting research and Tilburg University: exploration of research subjects in the area of “Data pipelines”, discussions, brainstorming ,talking of research challenges.

2. Attendees

Name	Department/Division	E-mail	Phone
Prof.Mike Papazoglou	UvT / The Netherlands	mikep@uvt.nl	
Maria Papachristodoulou, MSc Student	CUT / Cyprus	mk.papachristodoulou@edu.cut.ac.cy	
Prof. Willem-Jan van den Heuvel	UvT / The Netherlands	w.j.a.m.vdnheuvel@tilburguniversity.edu	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
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Collaboration with Philips lighting research and Tilburg University: exploration of research subjects in the area of “Data pipelines”, discussions, brainstorming ,talking of research challenges.	Discussion		
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3.3.3 Day Three

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	05/07/2017	Time:	09:30-16:00
Facilitator:	UvT	Location:	Jheronimus Academy of Data Science Sint Janssingel 92 5211 DA 's-Hertogenbosch The Netherlands

1. Subject / Short Description

Collaboration with Philips lighting research and Tilburg University: exploration of research subjects in the area of “Data pipelines”, discussions, brainstorming ,talking of research challenges.

2. Attendees

Name	Department/Division	E-mail	Phone
Maria Papachristodoulou, MSc Student	CUT / Cyprus	mk.papachristodoulou@edu.cut.ac.cy	
Prof. Willem-Jan van den Heuvel	UvT / The Netherlands	w.j.a.m.vdnheuvel@tilburguniversity.edu	

3. Training Content			
Topic	Type (lecture, discussion, ...)	Trainer	Time
Collaboration with Philips lighting research and Tilburg University: exploration of research subjects in the area of "Data pipelines", discussions, brainstorming ,talking of research challenges.	Discussion		

3.3.4 Day Four

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	06/07/2017	Time:	09:30-16:00
Facilitator:	UvT	Location:	Jheronimus Academy of Data Science Sint Janssingel 92 5211 DA 's-Hertogenbosch The Netherlands, The Netherlands

1. Subject / Short Description

Collaboration with Philips lighting research and Tilburg University: exploration of research subjects in the area of "Data pipelines", discussions, brainstorming ,talking of research challenges.

2. Attendees

Name	Department/Division	E-mail	Phone
Maria Papachristodoulou, MSc Student	CUT / Cyprus	mk.papachristodoulou@edu.cut.ac.cy	

Prof. Willem-Jan van den Heuvel	UvT / The Netherlands	w.j.a.m.vdnheuvel@tilburguniversity.edu	
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3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Collaboration with Philips lighting research and Tilburg University: exploration of research subjects in the area of "Data pipelines", discussions, brainstorming ,talking of research challenges.	Discussion		

3.3.5 Day Five

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	07/07/2017	Time:	09:30-16:00
Facilitator:	UvT	Location:	Jheronimus Academy of Data Science Sint Janssingel 92 5211 DA 's-Hertogenbosch The Netherlands

1. Subject / Short Description

Collaboration with Philips lighting research and Tilburg University: exploration of research subjects in the area of "Data pipelines", discussions, brainstorming ,talking of research challenges.

2. Attendees

Name	Department/Division	E-mail	Phone

Maria Papachristodoulou, MSc Student	CUT / Cyprus	mk.papachristodoulou@edu.cut.ac.cy	
Prof. Willem-Jan van den Heuvel	UvT / The Netherlands	w.j.a.m.vdnheuvel@tilburguniversity.edu	

3. Training Content			
Topic	Type (lecture, discussion, ...)	Trainer	Time
Collaboration with Philips lighting research and Tilburg University: exploration of research subjects in the area of "Data pipelines", discussions, brainstorming ,talking of research challenges.	Discussion		

3.3.6 Day Six

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	08/07/2017	Time:	09:30-16:00
Facilitator:	UvT	Location:	Jheronimus Academy of Data Science Sint Janssingel 92 5211 DA 's-Hertogenbosch The Netherlands

1. Subject / Short Description
Summarization of the work performed and wrap-up – Planning of next actions

2. Attendees			
Name	Department/Division	E-mail	Phone
Prof. Mike Papazoglou	UvT / The Netherlands	mikep@uvt.nl	
Maria Papachristodoulou, MSc Student	CUT / Cyprus	mk.papachristodoulou@edu.cut.ac.cy	
Prof. Willem-Jan van den Heuvel	UvT / The Netherlands	w.j.a.m.vdnheuvel@tilburguniversity.edu	

3. Training Content			
Topic	Type (lecture, discussion, ...)	Trainer	Time
Summarization of the work performed and wrap-up – Planning of next actions	Discussion		

4. POLIMI Workshop – Italy (Sept 14-15, 2017)

Representatives from all project partners participated in the second workshop organized at the CUT premises in Limassol. During this 2-day workshop members from POLIMI and UvT delivered lectures and presentations to members of the CUT group. Also, a project management meeting was conducted in which members from all partners discussed the progress of the project.

4.1 Day One

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	14/09/2017	Time:	09:00-11:00

Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan
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1. Subject / Short Description

Talks(s) on data pipelines: monitoring and management

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Luciano Baresi	POLIMI / Italy	luciano.baresi@polimi.it	
Martin Garriga, PhD	POLIMI / Italy	martin.garriga@polimi.it	
Prof. Willem-Jan van den Heuvel	Tilburg / The Netherlands	w.j.a.m.vdnheuvel@tilburguniversity.edu	
Giovanni Quattrocchi, PhD	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
Danilo Ardaga, PhD	POLIMI / Italy	danilo.ardaga@polimi.it	
Athanasia Evangelinou, PhD	POLIMI / Italy	athanasia.evangelinou@polimi.it	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	
Andreas Christoforou, PhD candidate	CUT / Cyprus	ax.christoforou@edu.cut.ac.cy	
Maria Papachristodoulou, MSc Student	CUT / Cyprus	mk.papachristodoulou@edu.cut.ac.cy	
Stefanos Manoli, MSc Student	CUT / Cyprus	Sp.manoli@edu.cut.ac.cy	
Adonis Podinas, MSc Student	CUT / Cyprus	ak.podinas@edu.cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
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Talks(s) on data pipelines: monitoring and management	Lecture	Willem-Jan van den Heuvel
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4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
Pipelines_ws_dossier.pdf	Willem-Jan van den Heuvel

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	14/09/2017	Time:	11:00-13:30
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description

Discussion on research challenges related to data pipelines: framework monitoring and management

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Luciano Baresi	POLIMI / Italy	luciano.baresi@polimi.it	
Martin Garriga, PhD	POLIMI / Italy	martin.garriga@polimi.it	
Prof. Willem-Jan van den Heuvel	Tilburg / The Netherlands	w.j.a.m.vdnheuvel@tilburguniversity.edu	
Giovanni Quattrocchi, PhD	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
Danilo Ardaga, PhD	POLIMI / Italy	danilo.ardaga@polimi.it	

Athanasia Evangelinou, PhD	POLIMI / Italy	athanasia.evangelinou@polimi.it	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	
Andreas Christoforou, PhD candidate	CUT / Cyprus	ax.christoforou@edu.cut.ac.cy	
Maria Papachristodoulou, MSc Student	CUT / Cyprus	mk.papachristodoulou@edu.cut.ac.cy	
Stefanos Manoli, MSc Student	CUT / Cyprus	Sp.manoli@edu.cut.ac.cy	
Adonis Podinas, MSc Student	CUT / Cyprus	ak.podinas@edu.cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Discussion on research challenges related to data pipelines: framework monitoring and management	Discussion		

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	14/09/2017	Time:	15:00-16:00
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description

Research Collaboration/Project management meeting

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Luciano Baresi	POLIMI / Italy	luciano.baresi@polimi.it	
Martin Garriga, PhD	POLIMI / Italy	martin.garriga@polimi.it	
Prof. Willem-Jan van den Heuvel	Tilburg / The Netherlands	w.j.a.m.vdnheuvel@tilburguniversity.edu	
Giovanni Quattrocchi , PhD	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
Danilo Ardaga, PhD	POLIMI / Italy	danilo.ardaga@polimi.it	
Athanasia Evangelinou, PhD	POLIMI / Italy	athanasia.evangelinou@polimi.it	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	
Andreas Christoforou, PhD candidate	CUT / Cyprus	ax.christoforou@edu.cut.ac.cy	
Maria Papachristodoulou, MSc Student	CUT / Cyprus	mk.papachristodoulou@edu.cut.ac.cy	
Stefanos Manoli, MSc Student	CUT / Cyprus	Sp.manoli@edu.cut.ac.cy	
Adonis Podinas, MSc Student	CUT / Cyprus	ak.podinas@edu.cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Research Collaboration/Project management meeting	Discussion		

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by

4.2 Day Two

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	15/09/2017	Time:	09:00-11:00
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description

Talk(s) on microservices (representation/description and synthesis), cloud resource management and community smells

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Luciano Baresi	POLIMI / Italy	luciano.baresi@polimi.it	
Martin Garriga, PhD	POLIMI / Italy	martin.garriga@polimi.it	
Prof. Willem-Jan van den Heuvel	Tilburg / The Netherlands	w.j.a.m.vdnheuvel@tilburguniversity.edu	
Giovanni Quattrocchi, PhD	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
Danilo Ardaga, PhD	POLIMI / Italy	danilo.ardaga@polimi.it	
Athanasia Evangelinou, PhD	POLIMI / Italy	athanasia.evangelinou@polimi.it	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	

Andreas Christoforou, PhD candidate	CUT / Cyprus	ax.christoforou@edu.cut.ac.cy	
Maria Papachristodoulou, MSc Student	CUT / Cyprus	mk.papachristodoulou@edu.cut.ac.cy	
Stefanos Manoli, MSc Student	CUT / Cyprus	Sp.manoli@edu.cut.ac.cy	
Adonis Podinas, MSc Student	CUT / Cyprus	ak.podinas@edu.cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Talk(s) on microservices (representation/description and synthesis),cloud resource management and community smells	Lecture	Constantinos Stylianou, PhD	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
csmells.pdf	Constantinos Stylianou, PhD

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	15/09/2017	Time:	11:30-13:30
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description

Discussion on research challenges related to microservices(representation/description and synthesis),cloud resource management and community smells

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Luciano Baresi	POLIMI / Italy	luciano.baresi@polimi.it	
Martin Garriga, PhD	POLIMI / Italy	martin.garriga@polimi.it	
Prof. Willem-Jan van den Heuvel	Tilburg / The Netherlands	w.j.a.m.vdnheuvel@tilburguniversity.edu	
Giovanni Quattrocchi, PhD	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
Danilo Ardaga, PhD	POLIMI / Italy	danilo.ardaga@polimi.it	
Athanasia Evangelinou, PhD	POLIMI / Italy	athanasia.evangelinou@polimi.it	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	
Andreas Christoforou, PhD candidate	CUT / Cyprus	ax.christoforou@edu.cut.ac.cy	
Maria Papachristodoulou, MSc Student	CUT / Cyprus	mk.papachristodoulou@edu.cut.ac.cy	
Stefanos Manoli, MSc Student	CUT / Cyprus	Sp.manoli@edu.cut.ac.cy	
Adonis Podinas, MSc Student	CUT / Cyprus	ak.podinas@edu.cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Discussion on research challenges related to microservices(representation/description and synthesis),cloud resource management and community smells	Lecture	Martin Garriga, PhD	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
Microservices_tax.pdf	Martin Garriga, PhD

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	15/09/2017	Time:	11:30-13:30
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description

Summary – Planning of next research steps

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Luciano Baresi	POLIMI / Italy	luciano.baresi@polimi.it	
Martin Garriga, PhD	POLIMI / Italy	martin.garriga@polimi.it	
Prof. Willem-Jan van den Heuvel	Tilburg / The Netherlands	w.j.a.m.vdnheuvel@tilburguniversity.edu	
Giovanni Quattrocchi, PhD	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
Danilo Ardaga, PhD	POLIMI / Italy	danilo.ardaga@polimi.it	
Athanasia Evangelinou, PhD	POLIMI / Italy	athanasia.evangelinou@polimi.it	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	

Andreas Christoforou, PhD candidate	CUT / Cyprus	ax.christoforou@edu.cut.ac.cy	
Maria Papachristodoulou, MSc Student	CUT / Cyprus	mk.papachristodoulou@edu.cut.ac.cy	
Stefanos Manoli, MSc Student	CUT / Cyprus	Sp.manoli@edu.cut.ac.cy	
Adonis Podinas, MSc Student	CUT / Cyprus	ak.podinas@edu.cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Summary – Planning of next research steps	Discussion		

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by

5. CUT Workshop – Cyprus (Oct 30-31, 2017)

Representatives from all project partners participated in the second workshop organized at the CUT premises in Limassol. In this 2-day workshop members from POLIMI and UvT delivered lectures and presentations based on the topics covered during the second site visits series.

5.1 Day One

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	30/10/2017	Time:	10:00-11:00

Facilitator:	CUT	Location:	EE-CEID, 39, Saripolou & Socratous, Limassol
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1. Subject / Short Description

Fast and fine-grained resource provisioning for modern software system

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Luciano Baresi	POLIMI / Italy	luciano.baresi@polimi.it	
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy	
Giovanni Quattrocchi, PhD	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
Michael Pingos	CUT / Cyprus	mf.pingos@edu.cut.ac.cy	
Nicolas Charalambous	CUT / Cyprus	nx.charalampous@edu.cut.ac.cy	
Spyros Loizou	CUT / Cyprus	sp.loizou@edu.cut.ac.cy	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	
Andreas Christoforou, PhD candidate	CUT / Cyprus	ax.christoforou@edu.cut.ac.cy	
Maria Papachristodoulou, MSc Student	CUT / Cyprus	mk.papachristodoulou@edu.cut.ac.cy	
Stefanos Manoli, MSc Student	CUT / Cyprus	Sp.manoli@edu.cut.ac.cy	
Adonis Podinas, MSc Student	CUT / Cyprus	ak.podinas@edu.cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
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Fast and fine-grained resource provisioning for modern software system	Lecture	Giovanni Quattrocchi, PhD	
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4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
rprov.pptx	Giovanni Quattrocchi, PhD

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	30/10/2017	Time:	11:15-12:15
Facilitator:	CUT	Location:	EE-CEID, 39, Saripolou & Socratous, Limassol

1. Subject / Short Description

Microservices are not just tiny services

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Luciano Baresi	POLIMI / Italy	luciano.baresi@polimi.it	
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy	
Giovanni Quattrocchi, PhD	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
Michael Pingos	CUT / Cyprus	mf.pingos@edu.cut.ac.cy	
Nicolas Charalambous	CUT / Cyprus	nx.charalampous@edu.cut.ac.cy	
Spyros Loizou	CUT / Cyprus	sp.loizou@edu.cut.ac.cy	

Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	
Andreas Christoforou, PhD candidate	CUT / Cyprus	ax.christoforou@edu.cut.ac.cy	
Maria Papachristodoulou, MSc Student	CUT / Cyprus	mk.papachristodoulou@edu.cut.ac.cy	
Stefanos Manoli, MSc Student	CUT / Cyprus	Sp.manoli@edu.cut.ac.cy	
Adonis Podinas, MSc Student	CUT / Cyprus	ak.podinas@edu.cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Microservices are not just tiny services	Lecture	Prof. Luciano Baresi	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
tmicroservices.pptx	Prof. Luciano Baresi

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	30/10/2017	Time:	12:15-13:00
Facilitator:	CUT	Location:	EE-CEID, 39, Saripolou & Socratous, Limassol

1. Subject / Short Description

Project Management Meeting

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Luciano Baresi	POLIMI / Italy	luciano.baresi@polimi.it	
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy	
Giovanni Quattrocchi, PhD	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
Michael Pingos	CUT / Cyprus	mf.pingos@edu.cut.ac.cy	
Nicolas Charalambous	CUT / Cyprus	nx.charalampous@edu.cut.ac.cy	
Spyros Loizou	CUT / Cyprus	sp.loizou@edu.cut.ac.cy	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	
Andreas Christoforou, PhD candidate	CUT / Cyprus	ax.christoforou@edu.cut.ac.cy	
Maria Papachristodoulou, MSc Student	CUT / Cyprus	mk.papachristodoulou@edu.cut.ac.cy	
Stefanos Manoli, MSc Student	CUT / Cyprus	Sp.manoli@edu.cut.ac.cy	
Adonis Podinas, MSc Student	CUT / Cyprus	ak.podinas@edu.cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Project Management Meeting	Discussion		

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by

5.2 Day Two

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	31/10/2017	Time:	10:00-11:00
Facilitator:	CUT	Location:	EE-CEID, 39, Saripolou & Socratous, Limassol

1. Subject / Short Description

Smart Connected Digital Factories: Unleashing the power of industry 4.0 and the industrial Internet

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Luciano Baresi	POLIMI / Italy	luciano.baresi@polimi.it	
Prof. Mike Papazoglou	UvT / The Netherlands	mikep@uvt.nl	
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy	
Giovanni Quattrocchi, PhD	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
Michael Pingos	CUT / Cyprus	mf.pingos@edu.cut.ac.cy	
Nicolas Charalambous	CUT / Cyprus	nx.charalampous@edu.cut.ac.cy	

Spyros Loizou	CUT / Cyprus	sp.loizou@edu.cut.ac.cy	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	
Andreas Christoforou, PhD candidate	CUT / Cyprus	ax.christoforou@edu.cut.ac.cy	
Maria Papachristodoulou, MSc Student	CUT / Cyprus	mk.papachristodoulou@edu.cut.ac.cy	
Stefanos Manoli, MSc Student	CUT / Cyprus	Sp.manoli@edu.cut.ac.cy	
Adonis Podinas, MSc Student	CUT / Cyprus	ak.podinas@edu.cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Smart Connected Digital Factories: Unleashing the power of industry 4.0 and the industrial Internet	Lecture	Prof.Mike Papazoglou	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
Industry4.pptx	Prof.Mike Papazoglou

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	31/10/2017	Time:	11:15-12:15
Facilitator:	CUT	Location:	EE-CEID, 39, Saripolou & Socratous, Limassol

1. Subject / Short Description

THE MANUFACTURING BLUEPRINT ENVIRONMENT: Bringing intelligence into manufacture

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Luciano Baresi	POLIMI / Italy	luciano.baresi@polimi.it	
Prof. Mike Papazoglou	UvT / The Netherlands	mikep@uvt.nl	
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy	
Giovanni Quattrocchi, PhD	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
Michael Pingos	CUT / Cyprus	mf.pingos@edu.cut.ac.cy	
Nicolas Charalambous	CUT / Cyprus	nx.charalampous@edu.cut.ac.cy	
Spyros Loizou	CUT / Cyprus	sp.loizou@edu.cut.ac.cy	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	
Andreas Christoforou, PhD candidate	CUT / Cyprus	ax.christoforou@edu.cut.ac.cy	
Maria Papachristodoulou, MSc Student	CUT / Cyprus	mk.papachristodoulou@edu.cut.ac.cy	
Stefanos Manoli, MSc Student	CUT / Cyprus	Sp.manoli@edu.cut.ac.cy	
Adonis Podinas, MSc Student	CUT / Cyprus	ak.podinas@edu.cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
THE MANUFACTURING BLUEPRINT ENVIRONMENT: Bringing intelligence into manufacture	Lecture	Prof. Mike Papazoglou	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)	
Description	Prepared by
Intelligence.pptx	Prof.Mike Papazoglou

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	31/10/2017	Time:	12:15-13:30
Facilitator:	CUT	Location:	EE-CEID, 39, Saripolou & Socratous, Limassol

1. Subject / Short Description

Research follow up meeting

2. Attendees			
Name	Department/Division	E-mail	Phone
Prof. Luciano Baresi	POLIMI / Italy	luciano.baresi@polimi.it	
Prof.Mike Papazoglou	UvT / The Netherlands	mikep@uvt.nl	
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy	
Giovanni Quattrocchi, PhD	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
Michael Pingos	CUT / Cyprus	mf.pingos@edu.cut.ac.cy	
Nicolas Charalambous	CUT / Cyprus	nx.charalampous@edu.cut.ac.cy	
Spyros Loizou	CUT / Cyprus	sp.loizou@edu.cut.ac.cy	

Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	
Andreas Christoforou, PhD candidate	CUT / Cyprus	ax.christoforou@edu.cut.ac.cy	
Maria Papachristodoulou, MSc Student	CUT / Cyprus	mk.papachristodoulou@edu.cut.ac.cy	
Stefanos Manoli, MSc Student	CUT / Cyprus	Sp.manoli@edu.cut.ac.cy	
Adonis Podinas, MSc Student	CUT / Cyprus	ak.podinas@edu.cut.ac.cy	

3. Training Content			
Topic	Type (lecture, discussion, ...)	Trainer	Time
Research follow up meeting	Discussion		

4. Pre-work/Preparation (documents/handouts, reading material, etc.)	
Description	Prepared by

6. Summer School – Cyprus (Oct 04-06, 2017) [part A’]

The 2nd mini-school (Part A’) on Cloud Computing, Software Services and Smart Data Processing, in the context of the Dossier-Cloud project, was organized in the beginning of October 2017 and included a lectures from senior researchers from POLIMI and a project meeting. In the project meeting members from CUT and POLIMI discussed about the progress of the project and organized the next steps. Lectures by POLIMI researchers were attended by undergraduate and postgraduate students, as well as academic staff from CUT.

6.1 Day One

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	04/10/2017	Time:	09:00-10:30
Facilitator:	CUT	Location:	EE-CEID, 39, Saripolou & Socratous, Limassol

1. Subject / Short Description

Microservices: the first cloud native architecture

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Luciano Baresi	POLIMI / Italy	luciano.baresi@polimi.it	
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy	
Martin Garriga, PhD	POLIMI / Italy	martin.garriga@polimi.it	
Damian Andrew Tamburri, Post-Doctoral Student	POLIMI / Italy	damian.andrew.tamburri@polimi.it	
Michael Pingos	CUT / Cyprus	mf.pingos@edu.cut.ac.cy	
Nicolas Charalambous	CUT / Cyprus	nx.charalampous@edu.cut.ac.cy	
Spyros Loizou	CUT / Cyprus	sp.loizou@edu.cut.ac.cy	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	
Andreas Christoforou, PhD candidate	CUT / Cyprus	ax.christoforou@edu.cut.ac.cy	
Maria Papachristodoulou, MSc Student	CUT / Cyprus	mk.papachristodoulou@edu.cut.ac.cy	

Stefanos Manoli, MSc Student	CUT / Cyprus	Sp.manoli@edu.cut.ac.cy	
Adonis Podinas, MSc Student	CUT / Cyprus	ak.podinas@edu.cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Microservices: the first cloud native architecture	Lecture	Martin Garriga, PhD	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
microservices.pptx	Martin Garriga, PhD

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	04/10/2017	Time:	10:45-12:15
Facilitator:	CUT	Location:	EE-CEID, 39, Saripolou & Socratous, Limassol

1. Subject / Short Description

Serverless architecture: The (r)evolution of cloud resource management

2. Attendees

Name	Department/Division	E-mail	Phone

Prof. Luciano Baresi	POLIMI / Italy	luciano.baresi@polimi.it	
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy	
Martin Garriga, PhD	POLIMI / Italy	martin.garriga@polimi.it	
Damian Andrew Tamburri, Post-Doctoral Student	POLIMI / Italy	damian.andrew.tamburri@polimi.it	
Michael Pingos	CUT / Cyprus	mf.pingos@edu.cut.ac.cy	
Nicolas Charalambous	CUT / Cyprus	nx.charalampous@edu.cut.ac.cy	
Spyros Loizou	CUT / Cyprus	sp.loizou@edu.cut.ac.cy	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	
Andreas Christoforou, PhD candidate	CUT / Cyprus	ax.christoforou@edu.cut.ac.cy	
Maria Papachristodoulou, MSc Student	CUT / Cyprus	mk.papachristodoulou@edu.cut.ac.cy	
Stefanos Manoli, MSc Student	CUT / Cyprus	Sp.manoli@edu.cut.ac.cy	
Adonis Podinas, MSc Student	CUT / Cyprus	ak.podinas@edu.cut.ac.cy	

3. Training Content			
Topic	Type (lecture, discussion, ...)	Trainer	Time
Microservices: the first cloud native architecture	Lecture	Martin Garriga, PhD	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)	
Description	Prepared by
cloud.pptx	Martin Garriga, PhD

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	04/10/2017	Time:	18:00-19:30
Facilitator:	CUT	Location:	EE-CEID, 39, Saripolou & Socratous, Limassol

1. Subject / Short Description

Cloud and Big Data architectural styles.

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Luciano Baresi	POLIMI / Italy	luciano.baresi@polimi.it	
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy	
Martin Garriga, PhD	POLIMI / Italy	martin.garriga@polimi.it	
Damian Andrew Tamburri, Post-Doctoral Student	POLIMI / Italy	damian.andrew.tamburri@polimi.it	
Michael Pingos	CUT / Cyprus	mf.pingos@edu.cut.ac.cy	
Nicolas Charalambous	CUT / Cyprus	nx.charalampous@edu.cut.ac.cy	
Spyros Loizou	CUT / Cyprus	sp.loizou@edu.cut.ac.cy	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	
Andreas Christoforou, PhD candidate	CUT / Cyprus	ax.christoforou@edu.cut.ac.cy	
Maria Papachristodoulou, MSc Student	CUT / Cyprus	mk.papachristodoulou@edu.cut.ac.cy	
Stefanos Manoli, MSc Student	CUT / Cyprus	Sp.manoli@edu.cut.ac.cy	

Adonis Podinas, MSc Student	CUT / Cyprus	ak.podinas@edu.cut.ac.cy	
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3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Cloud and Big Data architectural styles.	Lecture	Damian Andrew Tamburri, Post-Doctoral Student	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
bigdata.pptx	Martin Garriga, PhD

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	04/10/2017	Time:	19:45-21:15
Facilitator:	CUT	Location:	EE-CEID, 39, Saripolou & Socratous, Limassol

1. Subject / Short Description

DevOps and continuous architecting

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Luciano Baresi	POLIMI / Italy	luciano.baresi@polimi.it	

Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy	
Martin Garriga, PhD	POLIMI / Italy	martin.garriga@polimi.it	
Damian Andrew Tamburri, Post-Doctoral Student	POLIMI / Italy	damian.andrew.tamburri@polimi.it	
Michael Pingos	CUT / Cyprus	mf.pingos@edu.cut.ac.cy	
Nicolas Charalambous	CUT / Cyprus	nx.charalampous@edu.cut.ac.cy	
Spyros Loizou	CUT / Cyprus	sp.loizou@edu.cut.ac.cy	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	
Andreas Christoforou, PhD candidate	CUT / Cyprus	ax.christoforou@edu.cut.ac.cy	
Maria Papachristodoulou, MSc Student	CUT / Cyprus	mk.papachristodoulou@edu.cut.ac.cy	
Stefanos Manoli, MSc Student	CUT / Cyprus	Sp.manoli@edu.cut.ac.cy	
Adonis Podinas, MSc Student	CUT / Cyprus	ak.podinas@edu.cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
DevOps and continuous architecting	Lecture	Damian Andrew Tamburri, Post-Doctoral Student	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
DevOps.pptx	Martin Garriga, PhD

6.2 Day Two

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	05/10/2017	Time:	09:00-10:00
Facilitator:	CUT	Location:	EE-CEID, 39, Saripolou & Socratous, Limassol

1. Subject / Short Description

Project Management Meeting

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Luciano Baresi	POLIMI / Italy	luciano.baresi@polimi.it	
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy	
Martin Garriga, PhD	POLIMI / Italy	martin.garriga@polimi.it	
Damian Andrew Tamburri, Post-Doctoral Student	POLIMI / Italy	damian.andrew.tamburri@polimi.it	
Michael Pingos	CUT / Cyprus	mf.pingos@edu.cut.ac.cy	
Nicolas Charalambous	CUT / Cyprus	nx.charalampous@edu.cut.ac.cy	
Spyros Loizou	CUT / Cyprus	sp.loizou@edu.cut.ac.cy	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	
Andreas Christoforou, PhD candidate	CUT / Cyprus	ax.christoforou@edu.cut.ac.cy	
Maria Papachristodoulou, MSc Student	CUT / Cyprus	mk.papachristodoulou@edu.cut.ac.cy	

Stefanos Manoli, MSc Student	CUT / Cyprus	Sp.manoli@edu.cut.ac.cy	
Adonis Podinas, MSc Student	CUT / Cyprus	ak.podinas@edu.cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Project Management Meeting	Discussion		

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	05/10/2017	Time:	10:00-15:00
Facilitator:	CUT	Location:	EE-CEID, 39, Saripolou & Socratous, Limassol

1. Subject / Short Description

Research follow up meetings

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Luciano Baresi	POLIMI / Italy	luciano.baresi@polimi.it	

Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy	
Martin Garriga, PhD	POLIMI / Italy	martin.garriga@polimi.it	
Damian Andrew Tamburri, Post-Doctoral Student	POLIMI / Italy	damian.andrew.tamburri@polimi.it	
Michael Pingos	CUT / Cyprus	mf.pingos@edu.cut.ac.cy	
Nicolas Charalambous	CUT / Cyprus	nx.charalampous@edu.cut.ac.cy	
Spyros Loizou	CUT / Cyprus	sp.loizou@edu.cut.ac.cy	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	
Andreas Christoforou, PhD candidate	CUT / Cyprus	ax.christoforou@edu.cut.ac.cy	
Maria Papachristodoulou, MSc Student	CUT / Cyprus	mk.papachristodoulou@edu.cut.ac.cy	
Stefanos Manoli, MSc Student	CUT / Cyprus	Sp.manoli@edu.cut.ac.cy	
Adonis Podinas, MSc Student	CUT / Cyprus	ak.podinas@edu.cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Research follow up meetings	Discussion		

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by

6.3 Day Three

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	06/10/2017	Time:	09:00-10:30
Facilitator:	CUT	Location:	EE-CEID, 39, Saripolou & Socratous, Limassol

1. Subject / Short Description

Towards the automate management of microservices – Part I

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Luciano Baresi	POLIMI / Italy	luciano.baresi@polimi.it	
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy	
Martin Garriga, PhD	POLIMI / Italy	martin.garriga@polimi.it	
Damian Andrew Tamburri, Post-Doctoral Student	POLIMI / Italy	damian.andrew.tamburri@polimi.it	
Michael Pingos	CUT / Cyprus	mf.pingos@edu.cut.ac.cy	
Nicolas Charalambous	CUT / Cyprus	nx.charalampous@edu.cut.ac.cy	
Spyros Loizou	CUT / Cyprus	sp.loizou@edu.cut.ac.cy	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	
Andreas Christoforou, PhD candidate	CUT / Cyprus	ax.christoforou@edu.cut.ac.cy	
Maria Papachristodoulou, MSc Student	CUT / Cyprus	mk.papachristodoulou@edu.cut.ac.cy	

Stefanos Manoli, MSc Student	CUT / Cyprus	Sp.manoli@edu.cut.ac.cy	
Adonis Podinas, MSc Student	CUT / Cyprus	ak.podinas@edu.cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Towards the automate management of microservices – Part I	Lecture	Prof. Luciano Baresi	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
Baresi_Cyprus_ms_1.pdf	Prof. Luciano Baresi

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	06/10/2017	Time:	10:45-12:15
Facilitator:	CUT	Location:	EE-CEID, 39, Saripolou & Socratous, Limassol

1. Subject / Short Description

Towards the automate management of microservices – Part II

2. Attendees

Name	Department/Division	E-mail	Phone

Prof. Luciano Baresi	POLIMI / Italy	luciano.baresi@polimi.it	
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy	
Martin Garriga, PhD	POLIMI / Italy	martin.garriga@polimi.it	
Damian Andrew Tamburri, Post-Doctoral Student	POLIMI / Italy	damian.andrew.tamburri@polimi.it	
Michael Pingos	CUT / Cyprus	mf.pingos@edu.cut.ac.cy	
Nicolas Charalambous	CUT / Cyprus	nx.charalampous@edu.cut.ac.cy	
Spyros Loizou	CUT / Cyprus	sp.loizou@edu.cut.ac.cy	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	
Andreas Christoforou, PhD candidate	CUT / Cyprus	ax.christoforou@edu.cut.ac.cy	
Maria Papachristodoulou, MSc Student	CUT / Cyprus	mk.papachristodoulou@edu.cut.ac.cy	
Stefanos Manoli, MSc Student	CUT / Cyprus	Sp.manoli@edu.cut.ac.cy	
Adonis Podinas, MSc Student	CUT / Cyprus	ak.podinas@edu.cut.ac.cy	

3. Training Content			
Topic	Type (lecture, discussion, ...)	Trainer	Time
Towards the automate management of microservices – Part I I	Lecture	Prof. Luciano Baresi	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)	
Description	Prepared by
Baresi_Cyprus_ms_2.pdf	Prof. Luciano Baresi

7. Summer School – Cyprus (Oct 25-27, 2017)

The second part of the 2nd mini-school on Cloud Computing, Software Services and Smart Data Processing, in the context of the Dossier-Cloud project, was organized at the end of October. During this event lectures from senior researchers from UvT were given. The lectures were attended by undergraduate and postgraduate students, as well as academic staff from CUT.

7.1 Day One

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	25/10/2017	Time:	09:30-11:00
Facilitator:	CUT	Location:	EE-CEID, 39, Saripolou & Socratous, Limassol

1. Subject / Short Description

Introduction to Industry 4.0

2. Attendees

Name	Department/Division	E-mail	Phone
Indika Priyantha, PhD	UvT / The Netherlands	pkumarawd@yahoo.com	
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy	
Michael Pingos	CUT / Cyprus	mf.pingos@edu.cut.ac.cy	
Nicolas Charalambous	CUT / Cyprus	nx.charalampous@edu.cut.ac.cy	
Spyros Loizou	CUT / Cyprus	sp.loizou@edu.cut.ac.cy	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	

Andreas Christoforou, PhD candidate	CUT / Cyprus	ax.christoforou@edu.cut.ac.cy	
Maria Papachristodoulou, MSc Student	CUT / Cyprus	mk.papachristodoulou@edu.cut.ac.cy	
Stefanos Manoli, MSc Student	CUT / Cyprus	Sp.manoli@edu.cut.ac.cy	
Adonis Podinas, MSc Student	CUT / Cyprus	ak.podinas@edu.cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Introduction to Industry 4.0	Lecture	Indika Priyantha, PhD	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
Industry4.0.pptx	Indika Priyantha, PhD

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	25/10/2017	Time:	11:30-13:00
Facilitator:	CUT	Location:	EE-CEID, 39, Saripolou & Socratous, Limassol

1. Subject / Short Description

Smart Manufacturing using IoT

2. Attendees			
Name	Department/Division	E-mail	Phone
Indika Priyantha, PhD	UvT / The Netherlands	pkumarawd@yahoo.com	
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy	
Michael Pingos	CUT / Cyprus	mf.pingos@edu.cut.ac.cy	
Nicolas Charalambous	CUT / Cyprus	nx.charalampous@edu.cut.ac.cy	
Spyros Loizou	CUT / Cyprus	sp.loizou@edu.cut.ac.cy	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	
Andreas Christoforou, PhD candidate	CUT / Cyprus	ax.christoforou@edu.cut.ac.cy	
Maria Papachristodoulou, MSc Student	CUT / Cyprus	mk.papachristodoulou@edu.cut.ac.cy	
Stefanos Manoli, MSc Student	CUT / Cyprus	Sp.manoli@edu.cut.ac.cy	
Adonis Podinas, MSc Student	CUT / Cyprus	ak.podinas@edu.cut.ac.cy	

3. Training Content			
Topic	Type (lecture, discussion, ...)	Trainer	Time
Introduction to Industry 4.0	Lecture	Indika Priyantha, PhD	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)	
Description	Prepared by
Industry4.0.pptx	Indika Priyantha, PhD

7.2 Day Two

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	26/10/2017	Time:	09:30-11:00
Facilitator:	CUT	Location:	EE-CEID, 39, Saripolou & Socratous, Limassol

1. Subject / Short Description

Introduction to Industry 4.0 and blueprints

2. Attendees

Name	Department/Division	E-mail	Phone
Indika Priyantha, PhD	UvT / The Netherlands	pkumarawd@yahoo.com	
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy	
Michael Pingos	CUT / Cyprus	mf.pingos@edu.cut.ac.cy	
Nicolas Charalambous	CUT / Cyprus	nx.charalampous@edu.cut.ac.cy	
Spyros Loizou	CUT / Cyprus	sp.loizou@edu.cut.ac.cy	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	
Andreas Christoforou, PhD candidate	CUT / Cyprus	ax.christoforou@edu.cut.ac.cy	
Maria Papachristodoulou, MSc Student	CUT / Cyprus	mk.papachristodoulou@edu.cut.ac.cy	
Stefanos Manoli, MSc Student	CUT / Cyprus	Sp.manoli@edu.cut.ac.cy	
Adonis Podinas, MSc Student	CUT / Cyprus	ak.podinas@edu.cut.ac.cy	

3. Training Content			
Topic	Type (lecture, discussion, ...)	Trainer	Time
Introduction to Industry 4.0 and blueprints	Lecture	Indika Priyantha, PhD	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)	
Description	Prepared by
Industry4.0.pptx	Indika Priyantha, PhD

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	26/10/2017	Time:	11:30-13:00
Facilitator:	CUT	Location:	EE-CEID, 39, Saripolou & Socratous, Limassol

1. Subject / Short Description
The Manufacturing Blueprint Environment: Bringing Intelligence into Manufacturing

2. Attendees			
Name	Department/Division	E-mail	Phone
Indika Priyantha, PhD	UvT / The Netherlands	pkumarawd@yahoo.com	
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy	

Michael Pingos	CUT / Cyprus	mf.pingos@edu.cut.ac.cy	
Nicolas Charalambous	CUT / Cyprus	nx.charalampous@edu.cut.ac.cy	
Spyros Loizou	CUT / Cyprus	sp.loizou@edu.cut.ac.cy	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	
Andreas Christoforou, PhD candidate	CUT / Cyprus	ax.christoforou@edu.cut.ac.cy	
Maria Papachristodoulou, MSc Student	CUT / Cyprus	mk.papachristodoulou@edu.cut.ac.cy	
Stefanos Manoli, MSc Student	CUT / Cyprus	Sp.manoli@edu.cut.ac.cy	
Adonis Podinas, MSc Student	CUT / Cyprus	ak.podinas@edu.cut.ac.cy	

3. Training Content			
Topic	Type (lecture, discussion, ...)	Trainer	Time
Introduction to Industry 4.0	Lecture	Indika Priyantha, PhD	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)	
Description	Prepared by
Industry4.0.pptx	Indika Priyantha, PhD

7.3 Day Three

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	27/10/2017	Time:	10:00-13:00

Facilitator:	CUT	Location:	EE-CEID, 39, Saripolou & Socratous, Limassol
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1. Subject / Short Description

Discussion, future work and follow up

2. Attendees

Name	Department/Division	E-mail	Phone
Indika Priyantha, PhD	UvT / The Netherlands	pkumarawd@yahoo.com	
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy	
Michael Pingos	CUT / Cyprus	mf.pingos@edu.cut.ac.cy	
Nicolas Charalambous	CUT / Cyprus	nx.charalampous@edu.cut.ac.cy	
Spyros Loizou	CUT / Cyprus	sp.loizou@edu.cut.ac.cy	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	
Andreas Christoforou, PhD candidate	CUT / Cyprus	ax.christoforou@edu.cut.ac.cy	
Maria Papachristodoulou, MSc Student	CUT / Cyprus	mk.papachristodoulou@edu.cut.ac.cy	
Stefanos Manoli, MSc Student	CUT / Cyprus	Sp.manoli@edu.cut.ac.cy	
Adonis Podinas, MSc Student	CUT / Cyprus	ak.podinas@edu.cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
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Discussion, future work and follow up	Discussion		
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4. Pre-work/Preparation (documents/handouts, reading material, etc.)	
Description	Prepared by

8. Conclusions

In the context of Workpackage-4, a number of actions and activities were organized and performed aiming to transfer scientific knowledge to CUT members in the area of Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration.

Firstly, researches from CUT performed site visits in the Netherlands and attended various lectures given by UvT members that covered a wide range of aspects and research topics on cloud distributed systems, such as data science and intelligence sharing, big data and analytics.

A new series of site visits at POLIMI followed. CUT members participated in a series of two site visits in Milan, where researches from POLIMI delivered lectures related to research challenges in a number of topics, such as, microservices, resource management on the cloud with the corresponding metrics and monitoring tools, and DevOps strategies with social software engineering. These series of site visits in Italy were concluded with a 2-day workshop.

A 2-day workshop was then organized at the premises of CUT closing the site activities of Task 4.1. The workshop included a project management meeting, lectures delivered by senior researches and faculty from POLIMI and UvT. During the project meeting, members from all partners discussed the progress of the project, lessons learned so far, planning and preparing for the next site visits. The corresponding lectures by the members of POLIMI and UvT were attended by CUT undergraduate and graduate students, post-docs, researchers and members of the academic staff.

The last activity for Task 4.1 was a 6-day school organized in Cyprus, split in two parts, during which were covered issues of Microservices and Serverless architecture, cloud and big data architectural styles, architecting DevOps and introduction to smart manufacturing and Industry 4.0.