Agenda and Time Schedule

Program Thursday November 9:
09.30 – 12.30  MC meeting
12.30 – 13.30  Lunch
13.30 – 14.00  Talk by Yoram Haddad
14.00 – 18.00  Technical visit to TNO (The Hague)
18.00 – 21.00  Dinner in The Hague and return to Amsterdam

Program Friday November 10:
09.00 – 12.30  Technical presentations
12.30 – 13.30  Lunch
13.30 – 16.00  Technical presentations and wrap-up
16.00 – 16.00  Closing and drinks
Agenda

ACROSS MC-meeting, 09/10/2016, 09.30-12.00

Part 1
1. Welcome to the participants (Rob)
2. Update from the Action Chair (Rob)
3. Promotion of gender balance (Rob)
4. Update from the Grant Holder (Rob)
5. Update from the COST Office
6. Update from DC Rapporteur
7. Follow-up of MoU objectives
8. Scientific planning
9. Requests for new members (Rob)
10. AOB
11. Location and date of next meeting
12. Summary of MC decisions
13. Closing

Part 2
1. Status preparation COST ACROSS book (Ivan)
2. Status preparation final document (Rob)

Part 3
Short presentations Task Forces
Minutes and matters from previous MC-meeting

COST ACROSS Summer School
- Summer School “Latency Control for Internet of Services” was held in Karlstad, 26-30 June in Karlstad, Sweden (local organizer: Prof. Andreas Kassler)

Extra WG1-3 meeting
- WG1-3 meeting, April 20, 2017 in Rome, Italy

COST ACROSS workshops
- Open workshop “Autonomous Control for Performance and Reliability Trade-offs in Internet of Services”, co-located with the International Conference on Performance Engineering (ICPE 2017) in L’ Aquila, Italy, on April 22, 2017 (organizer: Valeria Cardellini)

- Open workshop “Management and Control for Reliable Softwarized Networks”, co-located with the 29th International Teletraffic Congress (ITC29) in Genova, Italy, on September 9, 2017 (organizer: Hans van den Berg)

COST ACROSS Book
- Final book deliverable of COST ACROSS, to be published by Springer (organizer: Ivan Ganchev)

Request for approval of minutes
Short report on meetings

1. **Summer School** “Latency Control for Internet of Services” was held in Karlstad, 26-30 June in Karlstad, Sweden (local organizer: Prof. Andreas Kassler)

2. **Open workshop** “Autonomous Control for Performance and Reliability Trade-offs in Internet of Services”, co-located with the International Conference on Performance Engineering (ICPE 2017) in L’ Aquila, Italy, on April 22, 2017 (organizer: Prof. Valeria Cardellini)

3. **Open workshop** “Management and Control for Reliable Softwarized Networks”, co-located with the 29th International Teletraffic Congress (ITC29) in Genova, Italy, on September 9, 2017 (organizer: Prof. Hans van den Berg)
Workshop
Management & Control for Reliable Softwareized Networks
organized by COST Action IC1304 (ACROSS)
hosted by ITC 29, Genoa, Italy - 4 September 2016
http://www.cost-across.nl/
Workshop Programme

13.00 – 13.15  Hans van den Berg, TNO/CWI/UT, Netherlands; Kurt Tutschku, BTH, Sweden
*Welcome and Introduction*

13.15 – 14.00  Glenn Ricart, US Ignite, USA
*Keynote 1: Network Services Abstractions for Edge Computing*

14.00 – 14.30  Imen Grida Ben Yahia, Orange Labs, Paris, France
*Cognitive Network Management for Software Networks*

14.30 – 15.00  Ensar Zeljkovic, University of Antwerp – imec, Belgium
*ORCHESTRA: Virtualized and Programmable Orchestration of Heterogeneous WLANs*

15.00 – 15.30  *Coffee break*

15.30 – 16.15  Roberto Riggio, FBK CREATE-NET, Trento, Italy
*Keynote 2: Converging SDN and NFV at the network edges: the lightMANO approach*

16.15 – 16.45  Florian Wamser, University of Würzburg, Germany
*Study on Cloud-Based VNF for QoE Monitoring*

16.45 – 17.15  Niels van Adrichem, TNO, The Hague, Netherlands
*Robustness Challenges in Software-Defined Networks*

17.15 – 17.45  Attila Kertesz, University of Szeged, Hungary
*Investigating the Management of IoT Cloud Systems by Means of Simulation*

17.45 – 18.00  Rob van der Mei, CWI/VU University, Amsterdam, Netherlands (workshop co-chair)
*Wrap-up and Closing*
STSM’s

In previous period (May 1, 2016 – April 30, 2017)
1. Jakub Jaricek
2. Eneko Atxutegi
3. Audrius Kniuras
4. Xiaojie Wu
5. Aleksandar Karadimce
6. Sema Oktug
7. Bart Spinnewyn

In current period (May 1, 2017 – November 13, 2017)
1. Hugh Melvin
2. Federico Spini
3. Audras Markus
4. Yusuf Cinar
3. Promotion of Gender Balance and Early-Stage Researchers

Gender balance

- Tihana Grbac vice chair WG2, and Summer School Coordinator
- Valeria Cardellini organizer of workshop in L’ Aquila
- Currently 12 female MC members

Early Stage Researchers (ESR’s)

- 23 STSM’s so far, mainly by ESR’s

Promotion of gender balance and ESR’s is ongoing concern
4. Update from the Grant Holder

**Actions / IC1304 / Periods / Manage Grant 5**

Financial Period: AGA-IC1304-5
From 01/05/2017 to 13/11/2017

<table>
<thead>
<tr>
<th></th>
<th>Grant budget (a)</th>
<th>Actuals (b)</th>
<th>Accruals (c)</th>
<th>Total (d=b+c)</th>
<th>Forecast (e)</th>
<th>Total (f=d+e)</th>
<th>Delta (g=f-a)</th>
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<td>35 360.00</td>
<td>6 784.09</td>
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<td>6 784.09</td>
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<td>1 460.00</td>
<td>7 700.00</td>
<td>9 160.00</td>
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<tr>
<td>Total Networking expenditure</td>
<td>72 695.65</td>
<td>21 337.69</td>
<td>7 700.00</td>
<td>29 037.69</td>
<td>45 392.00</td>
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<tr>
<td>Total Eligible Networking expenditure</td>
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<td>21 337.69</td>
<td>7 700.00</td>
<td>29 037.69</td>
<td>43 657.97</td>
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<td>Total ISAC 15% of Eligible Networking expenditure</td>
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<td>3 200.65</td>
<td>1 155.00</td>
<td>4 355.65</td>
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<td>Total Eligible Costs</td>
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<td>24 538.34</td>
<td>8 855.00</td>
<td>33 393.34</td>
<td>50 206.66</td>
<td>83 600.00</td>
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- So far 23 STSM’s, no room and time for additional STSM’s
- Grant €10,000 for publication of the final COST ACROSS book
5. Update from the COST Office
6. Update from the DC Rapporteur

At review in late 2016

1. Scientific progress

Action is progressing appropriately with achievement of all MoU objectives and delivery of all MoU deliverables [Very Good]

2. Networking

There were many highly effective Action activities focusing on dissemination and exploitation of Action results [Excellent]

3. Impact

Multiple highly significant impacts are reasonably foreseen for the future OR one highly or moderately significant impact is already observed [Very Good]
7. MoU Objectives: Short-Term Scientific Missions

- **STSM’s**: Budget for 4 STSM’s this period (€10,000)

- **Summer School 2017**: Like Latency Control for Reliable Internet Services

- **ACROSS Website**:
  - [http://www.cost-across.nl/](http://www.cost-across.nl/)
  - Webmaster: Joost Bosman and Susanne van Dam
  - Website is well used
8. Scientific Planning

**Phase 1: Alignment**
- M01: Website, dissemination and Industrial Forum
- M1.1: Website, dissemination and Industrial Forum
- M1.2: State-of-the-art and refined planning

**Phase 2: Research and development**
- M12: Initial models per WG
- M21: Initial models validated + initial models integration

**Phase 3: Integration and consolidation**
- M24: Refined models validated + integration
- M31: PoC simulations of integration
- M36: Final workshop and Community of Practice
- M48: Book of test-lab experiments of integration

MC-meeting, Amsterdam, November 9, 2017
# 8. Scientific Planning

| MS1.1:       | Website, dissemination plan and Industrial Forum established | M03          |
| MS1.2:       | Overview state-of-the-art and refined planning (integrated and per WG) ready | M12          |
| MS2.1:       | Initial models per WG (control, monitoring, pricing) ready | M24          |
| MS2.2:       | Refined models per WG validated and initial integration models ready | M36          |
| MS3.1:       | PoC simulations of integration ready | M40          |
| MS3.2:       | PoC lab experiments of integration ready | M44          |
| MS3.3:       | Book ready, final workshop and establishment Community of Practice | M48          |
9. Dissemination planning

<table>
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<th>Event</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
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<tr>
<td>Kick-off MC meeting</td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
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<td>Annual MC meetings</td>
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<td>Q2</td>
<td>Q3</td>
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<td>Q2</td>
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<td>Updating Annual Report</td>
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<td>Industrial Forum</td>
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<td>1st Annual Report of the Action</td>
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<td>Final Report</td>
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<tr>
<td>Open Workshop</td>
<td></td>
<td></td>
<td>One per year</td>
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<tr>
<td>Establishment of a European Community of Practice</td>
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*Year 1 to Year 4, Q1 to Q4:*
- **Kick-off MC meeting,** **Annual MC meetings,** **1st version of the Action’s Website,** **Detailed Action’s dissemination plan,** **Updating Annual Report,** **Industrial Forum,** **1st Annual Report of the Action,** **Annual Reports,** **Final Report,** **Summer School** are shown.

*Open Workshop:* One per year, One per year, One per year.
Status Preparation ACROSS Book
Final Report: Table of Contents

1. State-of-the-art review of ACROSS research
2. Algorithms for static, semi-dynamic and fully dynamic service compositions (WG1)
3. Online quality prediction methods in combination with self-adaptation capabilities (WG2)
4. Study on implications of pricing strategies (WG3)
5. Proof-of-Concepts of methods developed by each Working Group
6. Annual Report of ACROSS research
7. Action web site
8. Action dissemination plan including yearly updates
9. Open data bases containing system usage characteristics and quality measurements
10. Contributions to standardisation bodies

To be delivered to COST December 1, 2017
Final Report: Status

• Most TF leaders have handed in
  – Update on topic, results, plans, publications

• STSM
  – Collected via e-COST

• Current status
  – Rob/Hans are currently integrating the inputs from the TF leader into the document

TF leaders cam expect request for extra info
Topic and Title

Suggestions for topics

• Security and Resilience of Softwarized Networks

• QoE-driven Network Management

• Service Quality Management in Softwarized Networks

• Internet of Skills: where communications, robotics and AI meet....
  • reliability, “zero delay”, robustness, QoE, QoS
10. AOB: Reimbursement for this meeting a.s.a.p.

11. Next meeting: N.A.

12. MC decisions
   • Approval of minutes of previous MC meeting (Bilbao)

Action Points:
   • TF leaders: be prepared to deliver additional input for Final Report on short notice
   • Ivan Ganchev: lead the process to finish up book

Presentation of progress in Task Forces
Evolution in Task Forces

01. Softwarization of networks (Javier Sainz Guerra, Kurt Tutschku)
02. Cross-layer QoE-management (Peter Pocta)
03. QoS-aware service composition (Rob van der Mei)
04. Cloud federations (Wojtek Burakowski)
05. Energy/cost-aware management control (Javier Sainz Guerra)
06. New transport protocols (Ake Arvidsson)
07. Quality/cost management (Stoyan Poryazov)
08. QoS/QoE modelling (Tobias Hossfeld, Thomas Bohnert)
09. QoS/QoE monitoring (Petteri Mannersalo, Phillip Leitner)
10. Human factors (Katarzynka Wac)
11. End-user monitoring (Petteri Mannersalo, Toni Maki)
12. Effective monitoring of encrypted ‘grey’ traffic (Ake Arvidsson)
13. Prediction and modelling of service composition performance, quality and reliability (Tihana Grbac)
14. Provisioning of context-dependent pricing, charging and billing (Peter Key)
15. QoS and price-aware selection of cloud service providers (Phillip Leitner)
Evolution in Task Forces

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9 and 11 merged
TF Leader: Martin Varela

New TF: Autonomic and reliable control of wireless networks (Steven Latre)