



Minutes

**The 8th MC meeting, ETSI Telecomunicación/ University of Malaga, Malaga,
Spain, February 15-16, 2007**

1-3. Approval of the Agenda

The local organizer represented by Prof. Carlos Camacho opens the meeting at 9:00 with a presentation on the University of Malaga. The Chair, Dr. Koucheryavy (TUT, Finland) welcomes all the participants and thanks Prof. Mari Carmen Aguayo Torres of the University of Malaga for the excellent organization of this event.

The agenda of the 8th MCM meeting is approved as follows:

1. Welcome
2. Greetings from Chairman
3. Approval of the agenda
4. Update on the Action (delivered by the Chairman)
 - Status of the Action, signatories
 - Budget
 - STMS update
 - Other MC business
5. Budget for the 3rd operational year
6. 9th MC meeting details and WWIC 2007 info
 - Prof. Fernando Boavida (Univ. of Coimbra, Portugal)
7. 10th MC meeting hosting proposals
 - Michal Ries (Vienna Univ. of Technology, Austria)
 - Prof. Khalid Al-Begain (Univ. of Glamorgan, UK)
 - Thomas Fichtel (Salzburg Research, Austria)
8. ESF COST information
 - Gabriela Cristea (ESF COST Office, Brussels, Belgium)
9. Presentation of the COST 298 Action
 - Bartolomeo Sapio (FUB, Italy)
10. Introduction of a new participant: Aleksii Penttinen, Helsinki Univ. of Technology (Finland)
11. Proposal on creation of "COST 290 WiMAX Study Group"
 - Thomas Bohnert (UoC, Portugal)
12. Discussion of the final report

This meeting is organized with the MC meeting plus sessions with totally 19 technical documents distributed among 9 technical sessions. Thomas Bohnert (UoC, Portugal) was invited to give a technical presentation on ongoing work within STSM to TUT, Finland. In addition to this, two invited talks have been planned as follows:

- On February 15, Prof. G. S. Kuo (Beijing Univ. of Posts and Telecommunications, China), "IEEE 802.16e QoS";
- On February 16, Dr. Pablo Ameigeiras (University of Granada, Spain), "Performance of Streaming Services over HSDPA".

At the end of the MC meeting, a parallel WG meeting has been organized for proposing a final report structure. Moreover, WWIC TPC meeting took place at the end of the COST meeting on the first day and the ERCIM eMobility meeting was organized at the end of the second meeting day.

4. Update on the Action

Dr. Koucheryavy provided a survey on the COST 290 action status.

At present, 24 countries plus Russia have signed the MoU of COST 290 Action.

3 MC meetings are planned in the third operational year (i.e., 7th/Split, 8th/Malaga, 9th/Coimbra). The next MCM will be in Coimbra, Portugal. The WWIC 2007 conference (i.e., the COST 290 official workshop) is co-located with the 9th MC meeting.

3 STSMs have been completed during the second operational year:

- From University of Siena, Italy, to TUT, Finland,
- From TUT, Finland, to INRIA, France;
- From the University of Limerick, Ireland, to State St. Petersburg University of Telecommunications (Russia).

The following published or submitted papers derived from the above STSMs:

- Alocci, G. Giambene, Y. Koucheryavy, "Optimization of the Transport Layer Performance in a Wireless System based on the IEEE 802.11e Standard", *in the Proc. of ISWPC 2007*, February 5-7, 2007, Porto Rico (USA).
- R. Dunaytsev, K. Avratchenkov, Y. Koucheryavy, "An Analytical Comparison of the Slow-but-Steady and Impatient Variants of TCP NewReno", accepted for WWIC 2007 (the information arrived after the meeting).

An STSM of enlarged duration (3 months) is currently in progress from the UoC (Portugal) to TUT (Finland) with title: "A Nonparametric Approach for Measurement Based Admission Control". Some results coming from this STSM will be published in the following paper:

- T. Bohnert, E. Monteiro, Y. Koucheryavy, D. Moltchanov "Non-Parametric and Self-Tuning Measurement-based Admission Control", accepted for *IFIP Networking 2007*, May 14 - 18, Atlanta, GA, USA.

Finally, an STSM is under review from INRIA (France) to TUT (Finland), dealing with "TCP Performance and Fairness Evaluation over Future WiMAX Networks".

All the information about the approved STSMs is on the COST 290 Web site, page "STSM @ cost290.org".

5. Budget review: report on the 3rd operational year

Dr. Koucheryavy described the budget situation for the third operational year (2006-2007). Action 290 has been granted with a 136,850 € budget for the third operational year to cover the expenditures for

- 3 MC meetings
- Workshop
- STSM
- Publications
- Secretariat.

Meetings and STSM allocations were based on the number of signatory countries.

As for budget allocation, the following rules apply:

- Secretariat overhead is capped by 15% of actual expenses;
- Maximum 5.000 € for maximum one Workshop/Seminar per annum, or double this figure if Final Meeting.
- The MC may decide to shift funds between budget-lines, except for secretariat overhead.

The current budget breakdown according to ESF COST is as follows:

- Travel costs for 3 MCMs = 103,322.50 €
- Workshop = 5,000 €
- STSMs = 5,000 €
- Publications = 3,000 €
- Secretariat = 20,527.50 €

The current expenditures for the third operational year are as follows:

- 7th meeting expenses (28 MC members) = 23,834 €
- 8th meeting expenses (28 MC members + 1 invited speaker) = 26,000 € (estimated)
- STSMs = 4,000 € (estimated)
- Usual workshop support for WWIC 2007 = 5,000 €
- Invited speakers budget for WWIC 2007 = 5,000 €
- Student travel grants are approved by ESF COST, but their number and amount will be calculated later.

6. 9th MC meeting details

Prof. Fernando Boavida (Univ. of Coimbra, Portugal), provided a presentation about the next MCM in Coimbra (Portugal) in conjunction with WWIC 2007 (<http://wwic2007.dei.uc.pt/>) on May 23-25, 2007. The COST MCM will be on May 22, 2007 with the plenary session of WWIC 2007 (i.e., the keynote speech) on May 23 open to COST 290 attendees. The 9th MCM social event will be in the evening of May 22. The ERCIM workshop will be organized on May 21.

WWIC 2007 received 257 submissions. Among them, only 32-35 papers will be accepted to organize a single-track event.

Coimbra is at a distance of 2h from Lisbon airport and at a distance of 1.5h from Porto airport. The MC meeting venue is the Faculty Building, University of Coimbra, Campus III. Some hotels will be recommended. Transportation between the hotels and the meeting venue will be provided by the local organization.

7. 10th MC meeting proposals

As for the 10th MCM the following proposals have been received as described below.

- **Vienna University of Technology (Austria)** location was presented by Michal Ries. The Vienna University has 8 Faculties with 17,000 Students, 20% of them are foreign students. Christian Doppler studied there with other famous people and Nobel prize winner. The proposed dates should be identified in the range middle of September – beginning of October. The Vienna University is situated in the city centre. As for transportation, it is quite easy to be in Vienna and many low cost hotels are nearby the venue. A registration fee of around 75 € will be considered.

- **University of Glamorgan, UK.** Prof. Khalid Al-Begain presented the venue proposal of Cardiff, the capital city of Wales. The MCM should be in conjunction with the NGMAST conference, 12-14 September 2007. NOKIA, France Telecom, etc. will sponsor the meeting. A keynote speaker will be invited (from Microsoft, Orange, etc.). Many parallel tracks will be organized. The city hall is available for the conference and the MCM meeting. It is easy to reach Cardiff; we can use KLM from Amsterdam and a lot of low-fare companies. COST 290 people will have a 50% discount to attend the NGMAST conference. The possible location of the MCM could be either before or after NGMAST. The 10th MCM dinner will be organized in a Castle. A registration fee of around 75 € will be considered.
- Thomas Fichtel was not attending the MCM so that there has been no presentation for what concerns the Salzburg Research (Austria) proposal. This proposal has been considered as withdrawn.

Dr. Koucheryavy organized the voting process taking care that only MC members or related substitutes could vote. The votes of the 28 MC members were attending the meeting as follows:

- 15 votes for the Vienna University of Technology (Austria)
- 13 votes for the University of Glamorgan (UK).

Hence, the MCM approved that the 10th MC meeting will take place in Vienna, with dates to be agreed through a proposal and an email voting process. Dr. Dr. Koucheryavy thanked a lot all the proposers saying that it was very difficult to choose among these proposals since all of them was very good.

8. ESF COST information

Gabriela Cristea of the ESF COST Office (Brussels, Belgium) provided an overview presentation of COST actions. COST is a tool for establishing cooperation in the research among countries. It is based on flexible participation.

A new open call scheme has been introduced to create a new COST Action. The review of a new COST Action proposal requires a 2-stage peer-review process. As soon as 5 countries sign the Action MoU, this Action starts its activities. 100,000 € will be provided per Action with FP7. A new COST Grant System will be introduced by March 2007 for all domains. A web-based tool will be used to manage all the actions. The ESF COST DC-ICT rapporteur for COST 290 is Prof. Ivar Jardar Aasen.

COST actions should encourage the use of STSMs. Also extensive STSMs are now possible with duration of 9 months maximum with up to around 7,000 € budget. Also the interaction with other COST actions is encouraged. In particular, the following actions seem related to COST 290: COST 293, 295, 298, etc. Funds to support COST 290 people presenting COST 290 to other COST meetings should come from the COST 290 budget.

The next annual COST review meeting is in Budapest (Hungary) 2-4 July 2007.

9. Presentation of the COST 298 Action

Bartolomeo Sapio (FUB, Italy) presented the COST 298 Action, entitled "Participation in the Broadband Society!". This is a trans-discipline COST Action dealing with the human being in the information society, interactive intelligence, the role of users, etc. In COST 298 European scientists from telecommunication research departments, universities and operators together with independent consultants collaborate in cross-disciplinary groups to analyze the social dimensions of people's

relationships to information and communication technologies. This COST action is structured in 4 WGs. In this COST Action both sociologist and technical people are present.

10. Introduction of a new participant

A new participant, Aleksi Penttinen, provided his presentation on related activity of Helsinki Univ. of Technology (Finland).

11. Proposal on creation of “COST 290 WiMAX Study Group”

Thomas Bohnert (UoC, Portugal) provided a presentation on WiMAX research issues and their relevance to COST 290. He also presented project activities related to WiMAX and highlighted the importance of creating a focus (transversal) group in COST 290 with the aim of studying WiMAX and the simulation tools that are available for resource management, multimedia traffic and QoS support. The aim of this group is to coordinate research activity in this area according to common scenarios, requirements, performance indexes. The MCM approved this idea of a Special Focus Group on WiMAX and Thomas Bohnert will lead it. A meeting of this group was scheduled for the afternoon of the following day to start coordination.

12. Discussion of the final report

Dr. Koucheryavy informed all the MC participants that in the afternoon a meeting of the Working Groups (WGs) Chairs and the WG Chair and vice-Chair will be organized to discuss a proposal of the final report (book) structure to be presented to the MC members. It was also agreed that the outcome of this meeting would be reported in an Annex of these minutes for the widespread distribution of the final report/book proposed structure.

13. Close of the meeting

The 8th MC meeting was closed by Dr. Koucheryavy on February 15 at 11:30, thanking all the participants. Then, technical sessions started.

Reimbursement forms should be sent by mail to Dr. Yevgeni Koucheryavy:

Yevgeni Koucheryavy / TH 206
Institute of Communication Engineering
Tampere University of Technology
P.O.Box 553
FIN-33101
Tampere, FINLAND

These minutes have been written by Dr. Giovanni Giambene (University of Siena, Italy).

Attached list of delegates, COST 290 8th MC meeting, ETSI Telecomunicación/ University of Malaga, Malaga, Spain, February 15-16, 2007

	Name	Country	Organization	MC	Presentation title
1	Michal Ries	Austria	INTHFT – TU Wien		TD(07)010: Motion Based Reference-Free Quality Estimation
2	Thomas Fichtel (subs. I. Miloucheva)	Austria	Salzburg Research	X	
3	Gabriela Cristea	Belgium	ESF COST		Informational talk at MCM
4	Seferin Mirtchev	Bulgaria	Technical University of Sofia	X	TD(07)007: Study of Queueing System with State Dependant Mean Service Time
5	Nikola Rozic	Croatia	University of Split	X	
6	G.S. Kuo	China	Beijing Univ. of Posts and Telecom.		Invited talk: IEEE 802.16e QoS
7	Yevgeni Koucheryavy	Finland	Tampere Univ. of Technology	X	
8	Roman Dunaytsev (subs. J.Harju)	Finland	Tampere Univ. of Technology	X	TD(07)006: An Analytical Comparison of the Slow-but-Steady and Impatient Variants of TCP NewReno
9	Aleksi Penttinen (subs. Jorma Virtamo)	Finland	Helsinki Univ. of Technology	X	
10	Thomas Bohnert	Finland Portugal	Tampere Univ. of Technology Univ. of Coimbra		TD(07)005: Non-Parametric and Self-Tuning Measurement-based Admission Control
11	Fatiha Tolba (subs. Pascal Lorenz)	France	University of Haute Alsace	X	TD(07)002: Mobility management and energy preserve in wireless ad hoc networks
12	Dirk Staehle (subs. P. Tran-Gia)	Germany	University of Würzburg	X	TD(07)001: An HSPDA Long-term Bandwidth Model
13	Marc Necker	Germany	University of Stuttgart		TD(07)008: Local Interference Coordination in 802.16e Networks
14	Zigmund Orlov	Germany	University of Stuttgart		TD(07)012: Improvement of Video Streaming QoS by Application-aware Queue Management in UMTS/HSDPA networks
15	Michael Scharf	Germany	University of Stuttgart		TD(07)013: Quick-Start TCP: Performance Evaluation and Open Issues
16	Vasilios Siris	Greece	FORTH-ICS	X	TD(07)004: Resource Control for the EDCA Mechanism in Multi-Rate IEEE 802.11e

17	Vassilis Tsauoussidis	Greece	Democritus University	X	
18	Ivan Ganchev (subs. M.O'Droma)	Ireland	University of Limerick	X	
19	Sean Murphy	Ireland	UCD		
20	Abdelhamid Nafaa	Ireland	UCD		
21	Giovanni Giambene	Italy	Univ. Of Siena	X	
22	Saverio Mascolo	Italy	Politecnico di Bari	X	
23	Bartolomeo Sapio, COST 298	Italy	FUB		
24	Algimantas Kajackas	Lithuania	Vilnius Technical University	X	
25	Geert Heijenk (subs. R. Litjens)	The Netherlands	Univ. of Twente	X	
26	Hans van den Berg	The Netherlands	TNO ICT	X	TD(07)016: Fluid flow performance modeling of a relay node in an IEEE 802.11 ad-hoc network
27	Tor K. Moseng (subs. P.J. Emstad)	Norway	NUSC	X	
28	Fernando Velez	Portugal	University of Beira Interior	X	TD(06)017: Cellular Planning of an IEEE 802.16 Wireless Metropolitan Area Network
29	Edmundo Monteiro	Portugal	University of Coimbra	X	
30	Fernando Boavida	Portugal	University of Coimbra		
31	Tudor Blaga (subs. V. Dobrota)	Romania	Technical University of Cluj-Napoca	X	
32	Eduard Popovici (subs. T. Radulescu)	Romania	University Politehnic Bucharest	X	TD(07)009: Coding scheme impact on the IP-QoS network utilization and voice quality
33	Martin Klimo	Slovakia	Univ. of Zilina	X	
34	Katarina Bachrata	Slovakia	Univ. of Zilina		
35	Gorazd Kanduz	Slovenia	Jozef Stefan Institute	X	TD(07)019: Channel Decoder Assisted Adaptive Coding and Modulation for HAP Communications
36	Francisco	Spain	UPC	X	

	Barcelo				
37	Manuel Alvarez-Campana	Spain	UPM	X	
38	Pablo Ameigeiras	Spain	Univ. of Granada		Invited talk: Performance of Streaming Services over HSDPA
39	M. Carmen Aguayo-Torres	Spain	University of Malaga		TD(07)014: Impact of transport protocols in application throughput for wireless-wired networks
40	Boris Bellalta	Spain	UPF		TD(07)015: Flow-Level evaluation of Call Admission Control schemes in WMM WLANs
41	Anna Sfairpoulou	Spain	UPF		TD(07)018: Dynamic measurement-based codec selection for VoIP in multirate 802.11
42	Jesús Delicado-Martínez	Spain	UCLM		
43	Torsten Braun	Switzerland	University of Bern	X	TD(07)003: Secure Remote Management and Software Distribution for Wireless Mesh Networks
44	Burkhard Stiller	Switzerland	Univ. of Zurich	X	
45	Andreas Kassler	Sweden	Karlstad University	X	
46	Maria Kihl	Sweden	Lund University	X	
47	Khalid Al-Begain	UK	Univ. of Glamorgan	X	TD(07)011: IMS based Next Generation Mobile Service Creation Facility - The Glamorgan experiment

Annex

Final report and book meeting, ETSI Telecomunicación/ University of Malaga, Malaga, Spain, February 15, 2007

Meeting participants:

- Dr. Yevgeni Koucheryavy (COST 290 Chair)
- Dr. Giovanni Giambene (COST 290 vice-Chair)
- Dr. Dirk Staehle (WG1 Chair - "Traffic Engineering")
- Prof. Francisco Barcelo (WG2 Chair - "Mobility and interoperability")
- Prof. Torsten Braun (WG3 Chair - "Network architecture and planning")
- Prof. Vasilios Siris (WG4 Chair - "Services, regulations, and economic aspects").

Distribution: All COST 290 participants

Start of the meeting: February 15, 2007 12:00

End of the meeting: February 15, 2007 16:00

Dr. Yevgeni Koucheryavy highlighted that, considering the example of COST 257 action, the final report book could have around 200 pages, in total. The style of the book should be at the tutorial/survey level containing a good description of the state of the art and relevant results obtained in COST 290. It is important that in the introduction of each Chapter a state-of-the-art survey of the topic be presented of at least two pages. Dr. Yevgeni Koucheryavy stated that the book has to be ready by May 2008 to be presented at the last COST MCM meeting (probably there could be also the possibility to extend the COST 290 duration to September 2008). As agreed during the last MCM, Springer is the selected publisher. Springer will be contacted ASAP. The book has to be delivered to Springer typically 3 months before the deadline of the final report in order to give sufficient time to print the book. Hence, we have one year to do our job.

Dr. Giovanni Giambene highlighted copyright issues to be managed carefully when including in the book graphs and texts already published in journals and conferences. It is important that contributors be informed since the beginning that they have to report to chapter editors about text and figures they intend to use and that are already published; in fact, they will be allowed to use such material, but the publisher having copyright rights should be contacted by the book editor to have permissions and to know the related credit line to be included in the book. Springer will be asked to provide guidelines (Dr. Giambene has provided a set of rules used for his book with Springer). Copyright issues should be communicated to contributors since the beginning to save time and have the appropriate information from them soon.

Prof. Vasilios Siris highlighted that at the 9th MCM in Coimbra Final Report WG should explicitly put in the agenda a slot to discuss between those interested to contribute to a chapter/section the overall structure and type of contributions needed. This will give us a clear indication of who is willing to put effort to contribute, and give guidelines/directions to achieve a chapter format as discussed in Malaga. The TDs alone, do not reveal who is actually willing to put effort.

It was agreed that each Chapter will have an editor and contributors. Contributions will be asked for each Chapter. Only those who actually have provided contributions to the book will be considered as contributors and listed in the Chapter.

It was agreed that the initial book Chapter (i.e., Chapter 1) will be used to describe the work organization in COST 290 and containing also many details from the annual report.

The final report discussion started focusing on the current list of topics in each WG trying to revise their distribution to avoid overlaps and achieve the most efficient organization. Topics have to be defined for each WG/Chapters, thus providing a first rough organization of contents and chapter sections. Since chapters should be homogeneous in length, about 5 important topics have been selected for each of them. Each subpart (topic) of a chapter should be around 6-8 pages.

During the meeting, each WG Chair presented tentative organization of correspondent Chapter and list of TDs related to selected topics. The resulting proposed book organization is described below.

Proposed structure of the COST 290 book and final report

Chapter 1 “Introduction”, Editor: Yevgeni Koucheryavy

- Survey of COST 290 objectives
- Organization of the work in COST 290
- Some material from the annual report

Organization of work for WG1 by Dirk Staehle

Chapter 2 “Packet Scheduling and Congestion Control”, Editor: Giovanni Giambene

- Congestion/Flow Control
- Channel-Awareness / Cross Layer
- Service Differentiation
- Radio Resource Management
- Transport Protocols over Wireless

Chapter 3 “Performance Evaluation and Traffic Modelling”, Editor: Dirk Staehle

- System/Flow Level
- Packet Level
- Simulation/Testbed
- Multimedia, User-Perceived QoS
- Network planning, capacity

Organization of work for WG2 by Francisco Barcelo

Chapter 4 “Mobility Support”, Editor: Francisco Barcelo

- Mobility Characterization
- Location Awareness
- Handover Techniques
- IP Mobility Protocols
- QoS and Mobility
- Multicast

Organization of work for WG3 by Torsten Braun

Chapter 5 “Self Organizing Networks”, Editor: Torsten Braun

- Service Level Agreements
- Peer-to-Peer and Content Delivery Networks
- Context and Service Discovery
- Multi-Hop Wireless Networks
- Energy-Saving Issues

Organization of work for WG4 by Vasilis Siris

Chapter 6: “Services, Optimization, and Economic Aspects”, Editor: Vasilis Siris

- Services and Deployment Scenarios
- Charging, Accounting, and Business Models
- Optimization based on User/Application Requirements and Cost/Revenues Aspects

The following next important milestones have been considered with related responsibilities:

- **ASAP:**
 - COST Chair and Chapter Editors: Report of the book proposal to all COST participants
 - COST 290 Chair: to contact Springer, providing Chapter template (word) and copyright/permissions instructions.
 - COST 290 Chair: to send an email to the COST 290 email list providing a stringent deadline of one month to receive the missing TDs. This is a mandatory need for the book.
 - Chapter Editors: to send call for contributions for the different Chapters, asking first contributions to be provided before the next MCM in Coimbra.
 - Participants: send of expression of interest to corresponding Chapter editor with a first short draft (1 – 2 pages) with some contents and possibly references to TDs (please indicate the location of your contribution with reference to the above book structure). These draft contributions are welcome before the 9th MCM in Coimbra (**Deadline**; May 15, 2007).
- **May 2007** - COST Chair and Chapter Editors: Presentation of the book work, survey of activities and discussion at the 9th MCM in Coimbra
- **June 2007** – Submission of refined contributions
- **September 2007** - Chapter Editors: finalized chapter structure containing initial/draft text of all the Chapters to be prepared by Chapter editors and to be circulated and discussed at the 10th MCM in Vienna
- **December 2007** - Chapter Editors: revised version of the Chapters with the possible organization of an *ad hoc* meeting for a joint survey/review.