



# **Minutes**

**The 10th MC meeting, Technische Universität Wien**

**Wien, Austria**

**October 1 – 2, 2007**

### **1-3. Approval of the Agenda**

The Chair, Dr. Koucheryavy (TUT, Finland) starts around 9:15 the 10<sup>th</sup> MCM by welcoming all the participants and thanking Michal Ries of the Technische Universität Wien, Wien, Austria, for the excellent organization of this event. The local organizer Michal Ries welcomed also the participants providing information about this venue.

The agenda of the 10<sup>th</sup> 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
  - Report on the budget for the 3rd operational year
  - STMS update
  - Other MC business
5. Budget for the 4th operational year
6. ESF COST office presentation: Sophie Beaubron
7. Presentation of COST 2100 Action
8. Report on activity of "COST 290 WiMAX Special Interest Group"
9. Discussion of the COST 290 book
10. AOB

Prof. Ivar Jardar Aasen (University of Oslo, Norway) DC Rapporteur at ESF COST office attended this MC meeting together with Sophie Beaubron, the ESF COST office representative.

### **4. Update on the Action**

Dr. Koucheryavy presented the organization of this COST 290 MC meeting with 19 TD presentations and invited talks the first and the second day (invited speakers: Prof. Markus Rupp, TU Wien, Austria, Dr. Peter Reichl, ftw, Austria, Dr. Alexander Sayenko, Nokia Research Center, Finland).

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.

In the third operational year we had 3 MC meetings (i.e., 7th/Split, 8th/Malaga, 9th/Coimbra) and the WWIC 2007 conference (i.e., the COST 290 official workshop), co-located with the 9<sup>th</sup> MC meeting.

This is the first MC of the last year of this COST action.

In this last year we had, up to now, 3 STSMs as follows:

- From TUT (Finland) to University of Siena (Italy)
- From the University of Wuerzburg (Germany) to TUT (Finland)
- From the University of Coimbra (Portugal) to TUT (Finland).
- From the University of Glamorgan (UK) to University of Applied Sciences of Western (Switzerland)

Details on the COST 290 STSMs are provided on the COST 290 Web site, page "STSM @ cost290.org".

## 5. Budget review for the 4<sup>th</sup> operational year

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

- 3 MC meetings
- 1 Workshop
- STSMs
- Publications
- Secretariat.

We spent 113,593 € according to the following breakdown:

- Travel costs = 87,403 € (average costs per MC member to the last MCMs are: 1004 € for the 7th MCM in Split; 889 € for the 8<sup>th</sup> MCM in Malaga; 939 € for the 9<sup>th</sup> MCM in Coimbra)
- Workshop (WWIC 2007) = 5,000 €
- STSMs = 6,373 € for 3 STSMs
- Secretariat = 14,816 €.

For the fourth year, the budget allocated by ESF to COST 290 is 90,000 €, this is a significant budget reduction with respect to the last year.

During the fourth year, the plan for expenditures is according to the data below:

- We had on July 20, 2007 a Meeting in Siena to work on Chapter 2 of the COST 290 book. According to current claims, the cost of this meeting is 2638 € (not all the claims have been received).
- STSM costs for 2,390 € + 2,000 € (around, for not-yet-claimed STSM)
- 10th MCM in Vienna with 30 MC members participants × (indicative costs) 830 € = 25,000 €.

If we consider the cost of secretariat (15% of actual expenses), there is a remaining budget of about 43,000 € for MC meetings and other STSMs in this last year. This budget is too small to support the two next MCMs to complete this year. After a discussion, it has been approved by the MC members that in this last year only one more MC meeting will be organized at the end of the COST 290 Action in June 2008 in Tampere, collocated with the final COST 290 Workshop for which we could expect a good number of participants. This last COST 290 MCM (i.e., the 11<sup>th</sup> MCM) will be co-located with WWIC 2008 for which the location has changed (the Tuebingen location for WWIC 2008 has been cancelled). The Finland location might be expensive, but note that it is possible to use cheap flights to reach Tampere (e.g., in Tampere airport there is the Ryan Air terminal). Moreover, on-campus hotel price is around 60 €.

There is also the possibility of a January/February meeting for the COST 290 book editors and co-editors in a location in central Europe (e.g., Slovenia or Germany) to cut costs. For this meeting we could consider a maximum total cost of 8,000 €, so that 35,000 € are available for the last MCM + workshop + STSMs. The exact date of this meeting has to be aligned according to Springer deadlines. This meeting will be also exploited to address the work related to the COST 290 Final Report. It has been also agreed that there is no need to apply for COST 290 continuation, trying to finalize the COST 290 book within the last MC meeting.

It is also stated that taking into account available budget we could implement safely about 2 STSMs (each of them of maximum 2,000 €).

In order to plan better the use of the COST 290 funds in such a situation, it has been proposed by the Chair, Dr. Koucheryavy, and approved by the MC participants that a deadline of 60 days will be adopted for applying for MCM travel reimbursements.

ESF COST has launched a call for applications with Australia. We have received a message from Dr. Naveen K. Chilamkurti, SMIEEE, Computer Science and Computer Engineering La Trobe University Melbourne, Australia. His research interests fit in our Action and his curriculum is appropriate. The COST 290 has approved his participation to COST 290. This request will be now forwarded to the CSO for approval. Hence, there is the possibility that Dr. Chilamkurti will attend the last COST meeting in Tampere.

## **6. ESF COST office presentation**

Ms. Sophie Beaubron, Administrative Officer at the COST ESF office, provided a short introduction on COST Action aims as well as ESF complaints on COST 290 that were also circulated among the MC participants in a printed page. In her explanations, Ms. Sophie Beaubron has been supported by Prof. Ivar Jardar Aasen, the DC Rapporteur.

A number of complaints to the operation of the COST 290 action were orally explained and are summarized in the points detailed below.

### **Point #1**

COST ESF would like to have information about scientific contents and coordination activity carried out in this COST action. The DC Rapporteur for COST 290 Action gave partially negative recommendation about this Action.

### **Point #2**

The COST 290 Final Report need to have improved contents. In particular:

- Achievements need to be listed in the Final Report. COST 290 papers (e.g., conference and journal papers, experiments, STSMs).
- COST 290 scientific contributions are unclear. They should be organized according to the working group structure.
- The relationship of COST 290 with WWIC conference is not clear. Also ESF would know how COST 290 funds are used for WWIC. This important aspect should be clarified.

The progress report has to be enhanced with scientific contents and has to be considered as an incremental document, year after year. It is the responsibility of the Chair to organize the final report, but a steering committee can be created for that. Moreover, ESF would like to have distinction between COST 290 TD documents and real publications to conferences and journals.

Ms. Sophie Beaubron said that COST Final Reports are public documents. COST 284 Final Report is now available for downloading; it could be a valid example.

### **Point #3**

The COST 290 Final Report is the final outcome requested by COST ESF and this is different from the COST 290 book; they should not be confused. The COST DC committee will evaluate the Final Report.

#### **Point #4**

The COST 290 final event (workshop) should not be just another edition of WWIC, but rather an event devoted to the dissemination of COST 290 Action's achievements at the scientific level. Both the Final Report and the final event (workshop) should be carefully planned in order to achieve dissemination at the scientific level. Ms. Sophie Beaubron requested that also people outside COST 290 could come at the final event, thus implementing dissemination.

After a discussion, it was considered the possibility that the COST 290 final event be co-located with WWIC 2008 in Tampere in June. The COST 290 workshop should have a suitable track (with "COST 290" label) inside WWIC 2008. Moreover, a poster section could be also included in the COST 290 final event.

#### **Following discussion with the COST 290 MC participants**

Dr. Koucheryavy made comments about the above points and also explained that maybe some misunderstanding came due to the role COST 290 assumed for our book and the ESF expectation of a Final report. A discussion then started with Ms. Sophie Beaubron and Prof. Ivar Jardar Aasen, since some of the above guidelines could be also provided in the past years and some comments appeared to be too strong in comparison with the good research work that has been carried out in COST 290, the proof being the high number of available COST 290 TDs. In addition to the above, the cut in the 4<sup>th</sup> year budget represents a problem for COST 290 activities.

According to Ms. Sophie Beaubron comments and instructions, COST final evaluation will be based on the following criteria:

- Resources vs. objectives
- Results compared to objectives
- Describe main achievements
- Impact on international science and tech. (what you have done outside).
- Other COST action relation
- Describe the effectiveness of coordination. How did you worked together ?
- Describe the effectiveness of dissemination. What is outside ?
- Strengths and weakness.
- Recommendations for new actions.

Dr. Vasilios Siris commented that the COST 290 MC never received the DC comments for past years and it requested that Dr. Koucheryavy asked the copies of previous year comments to understand better the situation.

Dr. Koucheryavy stated that the COST 290 Final Report should be ready in March and distributed at the final MCM in Tampere (May-June 2008).

Finally, it was suggested by Vasos Vassiliou (University of Cyprus) to use the COST money for WWIC 2008 only for the co-located COST 290 workshop.

## **7. Presentation of COST 2100 Action**

COST 2100 Action ("Pervasive Mobile & Ambient Wireless Communications") has been presented by Prof. Fernando Velez (University of Beira Interior, Portugal) as a representative of Prof. Verdone, the COST 2100 chairman. The history of this COST action was based on previous COST 231, COST 259, COST 273 Actions. COST 2100 deals with pervasive communications and aims to have impact on standardization.

## 8. Report on activity of “COST 290 WiMAX Special Interest Group”

Thomas Bohnert (University of Coimbra, Portugal), the Chair of the COST 290 *WiMAX Study Group* (WSG), provided a report on this activity. Two STSMs have been jointly carried out in Tampere by Dirk Staehle and Thomas Michael Bohnert focusing on the “Development of a User-Perceived VoIP Quality aware Scheduler for OFDMA Networks”. Both PHY and MAC issues of WiMAX have been addressed and a joint paper has been submitted to ICC 2008.

This SIG has contributed significantly to the organization of events, as outlined below.

The 1st BWA workshop, 12-13 September 2007, co-located with NGMAST07 (*International Conference and Exhibition on Next Generation Mobile Applications, Services and Technologies*, Cardiff, Wales, UK, 12-14 September 2007). The workshop chairs were: Thomas Michael Bohnert (University of Coimbra, Portugal) and Dmitri Moltchanov (Tampere University of Technology, Finland). The 1st BW workshop had 28 paper submissions, 1 plenary talk, 4 invited papers. More details can be found at <http://bwaws.nginet.de>. SIG had direct impact on the standardization, and cooperation started with Maximilian Riegel of NSN. The 2nd BWA workshop will be collocated with CCNC 2008 in January 2008, Las Vegas, and 30 submitted papers have been received.

Finally, Prof. Fernando Velez organized the Workshop "Mobile WiMAX - Towards Ubiquitous Internet", 27<sup>th</sup> of September 2007, Lisbon, Portugal (<http://www.e-projects.ubi.pt/MobileWimaxWorkshop/MobileWimaxWorkshop.html>).

## 9. Discussion of the COST 290 book

Dr. Koucheryavy stated that the book table of contents was approved with plenary discussion at the 9th MCM, May 2007 in Coimbra. Contributions have been received so far from Chapter editors. The current version of chapters is now available on the BSCW server. The Springer contract for the book is being signed and Springer should receive the final version of the book 3 month before it can be published.

Then, the work carried out for the different COST 290 book chapters has been presented by Chapter editors.

A survey on Chapter 2 (“Packet Scheduling and Congestion Control”) has been given by Dr. Giovanni Giambene (University of Siena, Italy) explaining the organization of the work, the draft available, the missing contributions, and problems with overlapping parts. The aim of this Chapter is to focus on innovation and techniques.

Then, Chapter 3 (“Performance Evaluation and Traffic Modelling”) status has been presented by Dr. Dirk Staehle (University of Wuerzburg, Germany). Charter 3 is more on models and performance evaluations. Currently, Charter 3 is 55 pages long excluding references.

Prof. Francisco Barcelo, UPC, Spain, presented the current status of Chapter 4 (“Mobility Support”). This Chapter deals with mobility models, impact of mobility. Some overlaps should be addressed with respect to Chapter 3 as well as Chapter 2. Prof. Fernando Velez asked to include his contribution to Chapter 4.

Prof. Torsten Braun (University of Berne, Switzerland) has presented the status of Chapter 5 “Self Organizing Networks” showing that some contributions are missing. The focus is on self-management networks. The current length is 42 pages plus 9 pages of references. Presented results also come from papers published in Infocom and IEEE Transaction on Mobile Computing.

Finally, Chapter 6 (“Services, Optimization, and Economic Aspects”) has been presented by Dr. Vasilis Siris (FORTH, Greece), explaining the originality and the innovations contained in this Chapter. Topics covered in this Chapter are economic implications, business models, services for WiFi, 3G, etc, accounting, business models, optimization based on user application requirements. The current length of Chapter 6 is 43 pages. Section editors have prepared an introduction for each Section to clarify how the objectives are achieved and which aspects are investigated.

A first discussion on the book timetable has been provided, with more details addressed in the meeting of book editors carried out on October 2, 2007. The outcomes of this meeting have been presented to COST 290 participants at the end of the second day (October 2, 2007). The minutes of this meeting are provided in the appendix at the end of this document.

Before the end of the MCM, a short presentation on NETQOS project ([www.istnetqos.org](http://www.istnetqos.org)) has been anticipated for Dr. Ilka Miloucheva (Salzburg Research, Austria).

### 10. Close of the meeting

The 10<sup>th</sup> MC meeting was closed by Dr. Koucheryavy on October 1, 2007 at 12:15, thanking all the participants. Then, technical sessions started.

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

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

### Attached list of delegates, COST 290 10<sup>th</sup> MC meeting, Technische Universität Wien, Wien, Austria, October 1-2, 2007

	Name	Country	Organization	MC	Presentation title
1	Michal Ries	Austria	INTHFT – TU Wien		
2	Peter Reichl	Austria	ftw		Invited talk: Towards Future Communications: Architectures, Economics, and User Behaviour
3	Markus Rupp	Austria	TU Wien		Invited talk: Wireless Multimedia

4	Florian Floimair	Austria	Salzburg Research		TD(07)048: MINER: Measurement Infrastructure for Network Research
5	Sophie Beaubron	Belgium	ESF COST office		Presentation at MCM
6	Seferin Mirtchev	Bulgaria	Technical University of Sofia	X	
7	Stoyan Poryazov	Bulgaria	IMI – Bulgarian Academy of Science	X	TD(07)035: Offered Traffic Concepts in the Overall Network Teletraffic Theory
8	Emiliya Saranova	Bulgaria	College of Telecommunications and Post		
9	Maja Matijasevic (subs. D. Begusic)	Croatia	Univ. of Zagreb, FER	X	
10	Vasos Vassiliou (subs. A. Pitsillides)	Cyprus	University of Cyprus	X	TD(07)031: Delivering Adaptive Scalable Video over the Wireless Internet
11	Zinon Zinonos (subs. C. Chrysostomou)	Cyprus	University of Cyprus	X	TD(07)036: A Component-based Analysis of the Mobile IPv6 Handover from the Applications' Perspective
12	Yevgeni Koucheryavy	Finland	Tampere Univ. of Technology	X	
13	Dmitri Moltchanov (subs. J.Harju)	Finland	Tampere Univ. of Technology	X	TD(07)043: Cross-layer performance control of wireless channels
14	Jorma Virtamo	Finland	Helsinki Univ. of Technology	X	
15	Alexander Sayenko	Finland	Nokia Research Center		Invited talk: Resource and power management in the broadband wireless systems
16	Dirk Staehle (subs. P. Tran-Gia)	Germany	University of Würzburg	X	
17	Barbara Staehle	Germany	University of Würzburg		TD(07)040: Impact of Energy Models on Energy Efficient Sensor Network Routing
18	Zigmund Orlov	Germany	University of Stuttgart		
19	Vasilios Siris	Greece	FORTH-ICS	X	TD(07)038: Heraklion MESH: An Experimental Metropolitan Multi-Radio Mesh Network
20	Panagiotis Papadimitriou (subs. V.	Greece	Democritus University of Thrace	X	

	Tsaoussidis)				
21	Ivan Ganchev (subs. M. O'Droma)	Ireland	University of Limerick	X	
22	Giovanni Giambene	Italy	Univ. Of Siena	X	
23	Saverio Mascolo	Italy	Politecnico di Bari	X	TD(07)050: An Experimental Investigation of the Congestion Control used by Skype
24	Algimantas Kajackas	Lithuania	Vilnius Technical University	X	
25	Hans van den Berg	The Netherlands	TNO ICT	X	
26	Geert Heijen (subs. R. Litjens)	The Netherlands	Univ. of Twente	X	
27	Desislava Dimitrova	The Netherlands	Univ. of Twente		TD(07)044: Flow-level performance comparison of packet scheduling schemes for UMTS EUL
28	Ivar Jardar Aasen	Norway	NTNU		ESF COST Rapporteur
29	Edmundo Monteiro	Portugal	University of Coimbra	X	
30	Fernando Velez	Portugal	Univ. of Beira Interior	X	TD(07)045: Simulation of IEEE 802.11e in the context of interoperability TD(07)047: Design and Planning of IEEE 802.16 Networks
31	Orlando Cabral	Portugal	Univ. of Beira Interior		TD(07)046: Cost/Revenue Optimisation of Multi-service Cellular Planning for Business Centre E-UMTS
32	Thomas Bohnert	Portugal	University of Coimbra		WiMAX SG activity report
33	Virgil Dobrota	Romania	Technical University of Cluj-Napoca	X	
34	Eduard Popovici (subs. T. Radulescu)	Romania	Technical University of Cluj-Napoca	X	
35	Gabriel Lazar	Romania	Technical University of Cluj-Napoca		TD(07)037: Performance of Wireless IEEE 802.11e-Based Devices with Multiple Hardware Queues
36	Alexey Vinel (subs. V.	Russia	State University of Aerospace	X	TD(07)049: Optimization of contention resources for best-effort

	Efimushkin)		Instrumentation		scheduling type in WiMAX
37	Martin Klimo	Slovakia	Univ. of Zilina	X	
38	Katarina Bachrata	Slovakia	Univ. of Zilina		
39	Jana Uramova	Slovakia	Univ. of Zilina		TD(07)039: Information model of network throughput with the application of unary code
40	Juraj Smiesko	Slovakia	Univ. of Zilina		
41	Gorazd Kanduz	Slovenia	Jozef Stefan Institute	X	
42	Andrej Vilhar	Slovenia	Jozef Stefan Institute		TD(07)041: MAP selection algorithms based on future movement prediction capability
43	Francisco Barcelo	Spain	UPC	X	
44	Manuel Alvarez-Campana	Spain	UPM	X	TD(07)033: Performance evaluation of TCP over HSDPA based on measurements
45	Boris Bellalta	Spain	Univ. Pompeu Fabra		TD(07)042: Joint Admission Control and VoIP Codec Selection Policies in WLANs
46	Torsten Braun	Switzerland	University of Bern	X	TD(07)034: Power Saving in Wireless Multi-hop Networks
47	Burkhard Stiller	Switzerland	Univ. of Zurich	X	
48	Shabnam Aprin (subs. M. Kihl)	Sweden	Lund University	X	TD(07)032: Evaluation of an Intelligent Route Guidance System based on Inter-vehicle Communication
49	Andreas Kassler	Sweden	Karlstad University	X	

## Annex

**COST 290 book meeting, Technische Universität Wien, Wien, Austria, October 2, 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: October 2, 2007 10:30  
End of the meeting: October 2, 2007 13:00

Upon availability of Ilka Miloucheva (Salzburg Research, Austria) it was agreed to have the Chapter Editors and co-editors meeting (1 day meeting) in January/February 2008 in Berlin. The date has to be defined.

Then, a short survey on the status of the different Chapters has been carried out by the Chapter editors. According to this, it resulted that the following Chapter lengths (including list of references) are estimated:

- Ch.1: 15 pages
- Ch.2: 70 pages
- Ch.3: 70 pages
- Ch.4: 50 pages
- Ch.5: 60 pages
- Ch.6: 45 pages.

Thus, totally the book can be considered of 310 pages plus 20 pages of margin.

It is agreed to use Word for both the book work (Springer template) and final submission.

It is agreed that each Chapter should have an Introduction describing the framework and providing an informal state-of-the art. Moreover, each section within a Chapter should have an introductory part dealing with literature survey on the specific addressed topics and then a short description of the COST 290 achievements outlined in the section itself.

Chapter 1 will provide reward to COST 290 and ESF COST programme, describing the organization of work and objectives according to the working group structure.

As for those who have provided expressions of interest, but not yet contributed to the Chapters, it is agreed to allow a deadline extension to October 31, 2007 to provide the final contributions.

### **Style for references**

As for the references, it has been agreed to provide the references at the end of each Chapter in two separated lists: one list for the references to published material; another list for COST 290 TDs (for these references the link to the COST 290 Web page will be included).

References should appear according to the following style:

- References inside the text:  
[NAME07, TD(07)070]
- References at the end of each Chapter:  
NAME07. Authors, title, conference/journal.  
TD(07)070. Authors, title, conference/journal.

Possibly, references to COST 290 TDs should be correlated to related publications of the authors in conferences and journals to prove that COST 290 achievements are publicly disseminated. Possibly at the end of Chapter 1 we can list TDs by number for each chapter/section.

### **References to figures and equations**

Figures should appear with numbers that are Chapter-based (e.g., the fourth figure in Chapter 2 should be numbered as Fig. 2.4). The same applies to equations; e.g., the first equation in Chapter 3 should be identified as (3.1).

### **Section numbering**

Section numbering up to the third level should be used (e.g., 3.1.1). The fourth level could be used but without numbers.

### **List of authors for each Chapter**

Each Chapter header will contain the list of Editors with affiliations (names will be in alphabetical order). Then, there will be the list of contributors in alphabetical order excluding the above Chapter Editors; not all the TDs authors will be considered but only EoI contributors.

### **Timeline**

#### ***Deadline: October 31, 2007***

- Strict and hard deadline for contributions for those who have already provided expressions of interest
- Provision of sections introductions according to the above guidelines
- Copyright issues

#### ***Deadline: November 30, 2007***

- Second version of the Chapters + Chapter 1
- After: reviewing, harmonization, list of acronyms

#### ***Beginning of January***

- Revised version of Chapters for the Berlin meeting
- Check copyright issues

#### ***Chapter editor and co-editors meeting in Berlin***

- January?
- 1 day

#### ***Deadline: January 30, 2008***

- Pretty finalized versions of Chapters should be provided

#### ***Deadline: February 15, 2008***

- Submission to Springer (to be confirmed with Springer)

#### ***Deadline: May-June 2008***

- Book finalized.

A report about this meeting has been done to all COST 290 MC meeting participants at the end of the second day (October 2, 2007). In that occasion, the MCM participants have been informed by Dr. Koucheryavy that there will be the possibility to receive extra funds for publications from COST ESF.

Moreover, it has been also discussed if Springer would like to review the book before publishing and it was agreed to check with Springer these details and the impact on the time schedule. The BSCW server should be used to store the chapter materials.