

UMOBILE QUARTERLY REPORT

Action full title: *Universal, mobile-centric and opportunistic communications architecture*

Action acronym: *UMOBILE*

Grant Agreement number: *645124*

Period covered: *M19 – M21 (August 2016-October 2016)*

A) UMOBILE achievements of the last reporting period:

WP1:

- 6th internal management report preparation and submission
- 4th consortium physical meeting (21/9/16-22/9/16) coordination- agenda and minutes preparation
- 25/08/16 Technical teleconference meeting - agenda and minutes preparation
- 10/10/16 Coordination Committee meeting- agenda and minutes preparation
- 27/10/16 Technical teleconference meeting - agenda and minutes preparation
- Periodic report preparation & submission
- Mailing lists maintenance

WP2:

- Contributions to D2.3

WP3:

- NDN-Docker integration.
- Revision of Deliverables D3.1 and D3.3
- Implementation of the Oi! Application
- Start of the development of NDN-Opp mobile node architecture
- Alignment of the contextual manager definition based on the PerSense context tracking approach, and interface definition to the routing module as well as to the application layer.
- Implementation of KEBAPP over Android

WP4:

- Design of the QoS framework
- Specification of the contextual manager module, interfaces to the routing module, analysis of the internal modules and required extensions
- Preparation of the PerSense Mobile Light demo for the review
- Work on the In-Network Resource Pooling Protocol (INRPP)

WP5:

- Teleconference that marked the start of Task 5.1
- Task 5.3: Contributions to the UMOBILE Lab proposed by partner AFA, via the integration of an application derived from the PerSense Mobile Light app developed by Senception in the context of UMOBILE.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 645124

- Initial draft of the UMOBILE demonstration scenarios, which will be part of deliverable D5.1 “Validation methodology and evaluation report”.
- Initiation of work outlining the final demonstration, including internal discussions regarding the integration of UAVs
- Preparation of Deliverables D5.1 and D5.3

WP6:

- Poster in the ACM SIGCOMM 2016
- Publication of a paper on the IEEE Healthcom 2016 conference: Rute C. Sofia, SaeikFirdose, Luis Amaral Lopes, Waldir Moreira and Paulo Mendes, "NSense: A People-centric, non-intrusive Opportunistic Sensing Tool for Contextualizing Social Interaction", in Proc. of IEEE Healthcom, Munich, Germany, September 2016
- PerSense Mobile Light showed in MobiHoc2016 demo contest (<https://www.sigmobile.org/mobicom/2016/program.php>)
- Integration of requirements derived from UMOBILE into the Senception product line PerSense™.
- Presentation of a paper in MobiArch 2016
- Submission of 2 tutorial proposals (IEEE IM 2017 and IEEE ICC 2017)

B) UMOBILE actions planned for the next 3 months:

WP1:

- Organisation of regular monthly teleconferences
- Project amendment
- Consortium coordination
- Maintenance of the project’s mailing list

WP2:

- Work on the system and network requirements report (D2.3), as well as system and network deployabilityreport (D2.4)
- Development of experiments to collect traces in different locations worldwide, with the purpose of characterizing affinity networks and human mobility (based on Wi-Fi direct, with tool PerSense Mobile Light).

WP3:

- Development of the Service Migration platform on NDN
- Specification of the NDN-Opp mobile node architecture.
- Analysis of name-based opportunistic routing approaches.
- Implementation of NDN-Opp v1.0.
- Implementation of the Oi! and Now@ application based on NDN-Opp v1.0.
- Specification of the first version of the UMOBILE smart routing proposal.
- Definition of the output of the contextual manager for the routing module (routing metrics interface).
- Work on KEBAPP, OOC, NREP, INRPP

WP4:

- Work on QoS and decision engine.
- Full specification of the contextual manager (internal and external interfaces) (4.2)
- Definition of contextual output relevant in the context of prioritization (4.3).

WP5:

- Inputs to the demo story document provided by FON
- Integration of the PerSense Mobile Tool in the UMOBILE Lab.

WP6:

- Presentation of a research paper at ACM AINTEC 2016
- Potential submission of one scientific paper about the new concept of smart routing.
- Potential submission of one scientific paper about NDN-Opp framework.
- Submission of scientific study concerning roaming behavior with poles worldwide.
- Potential contributions to Internet drafts: GAIA, ANIMA

C) Problem/risk arose during this period, or any risk foreseen on the future and decisions taken to handle them:

The Project Coordinating organization decided to internally suspend the project and did not submit their financial form. However, the periodic report was submitted and the project review was organized and took place according to the plan. UMOBILE consortium decided to terminate the coordinating organization participation. A project amendment was initiated.

D) Resources used during the period in a project level:

(Double-click on the following table to edit cells in Excel)

WP	No of pms	Personnel Cost	Travel	Equipment	Other	Subcontracting	Subtotal	Indirect costs	Total costs
1	2.39								
2	1.35								
3	7.10								
4	1.83								
5	10.16								
6	3.23	125202.22	15808.01	99					
	26.06	125202.22	15808.01	99	0	0	141109.23	35277.31	176386.5

E) Short description for other direct costs:

Travel costs for physical meeting & project review, travel costs for dissemination (ACM SIGCOMM conference, IEEE Healthcom 2016 conference, ACM Workshop on Mobility in the Evolving Internet Architecture (MobiArch) 2016).
Equipment for Apple developer program.

F) Deviation from Annex 2 and/or paragraph 2.3.5 including subcontracting:

AFA personmonths for WP2: plus 0,15

G) Evaluation of the implementation of the project workplan: Gantt chart control, milestones and indicators:

The Project is implemented according to the plan. Specifically:

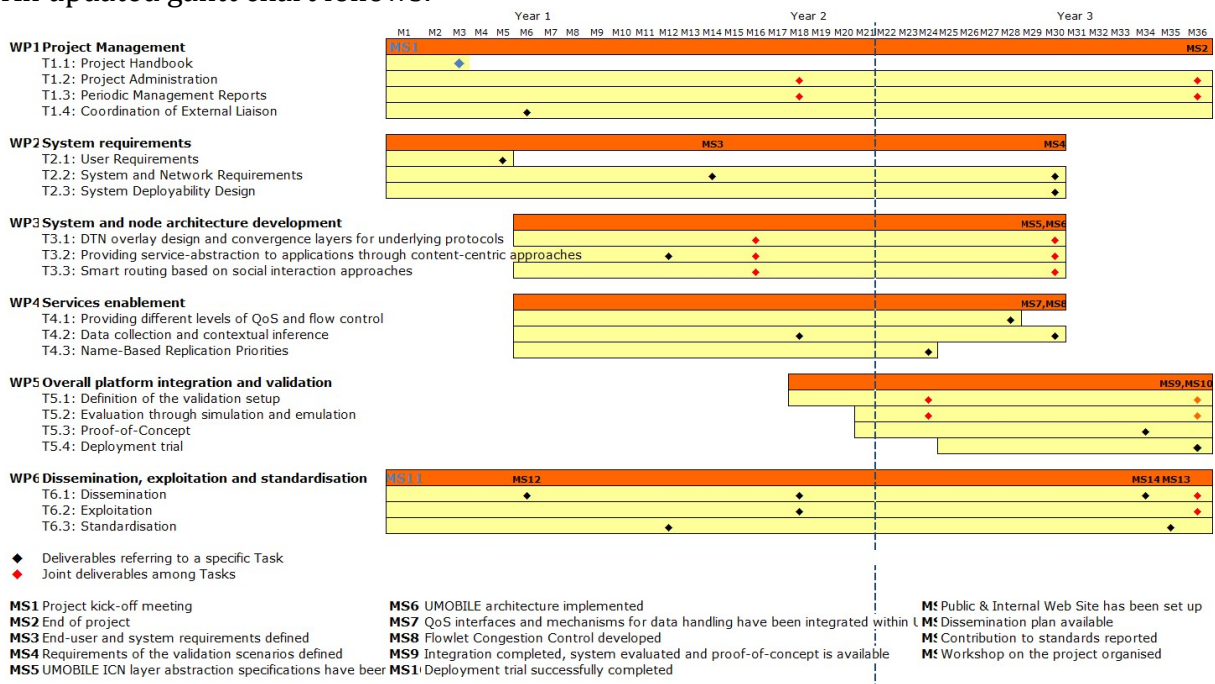
Period Milestones: MS1, MS3, MS11 and MS12 are accomplished according to the plan. The next milestones are scheduled for Month 30.

Period Deliverables: All deliverables are submitted according to the grant agreement timetable. D4.1 was submitted on M18 (UMOBILE Coordinator asked permission on the behalf of the consortium to submit "D4.1 Flowlet Congestion -Initial Report" on month 18, as described in page 22 of the grant agreement instead of Month 12 included in the deliverables tables). The change has been accepted.

The table below summarizes the UMOBILE activities for the period August 2016-October 2016:

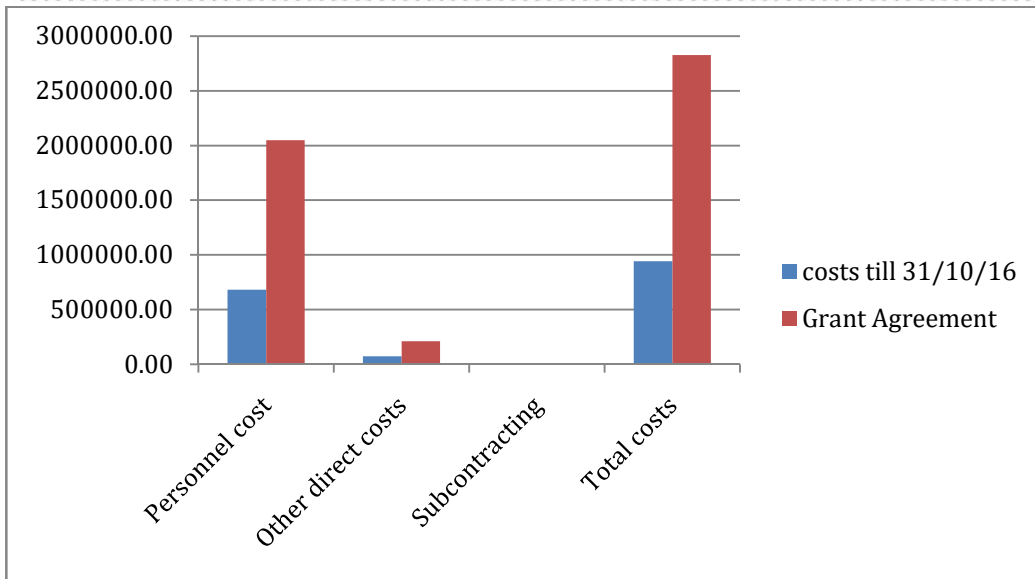
M..	Project Month	Meeting	Deliverable	Milestone	Report	Additional events
M19	August 2016	teleconference: 25/8/16	-	-	3monthly report for: M16 to M18	IEEE Healthcom 2016, ACM SIGCOMM conference
M20	September 2016	4rth physical meeting: 21/9/16-22/9/16	-	-	1st periodic report submission	
M21	October 2016	teleconference: 10/10/16	-	-	-	
		Review meeting: 20/10/16				
M21	October 2016	teleconference: 27/10/16	-	-	-	

An updated gantt chart follows:



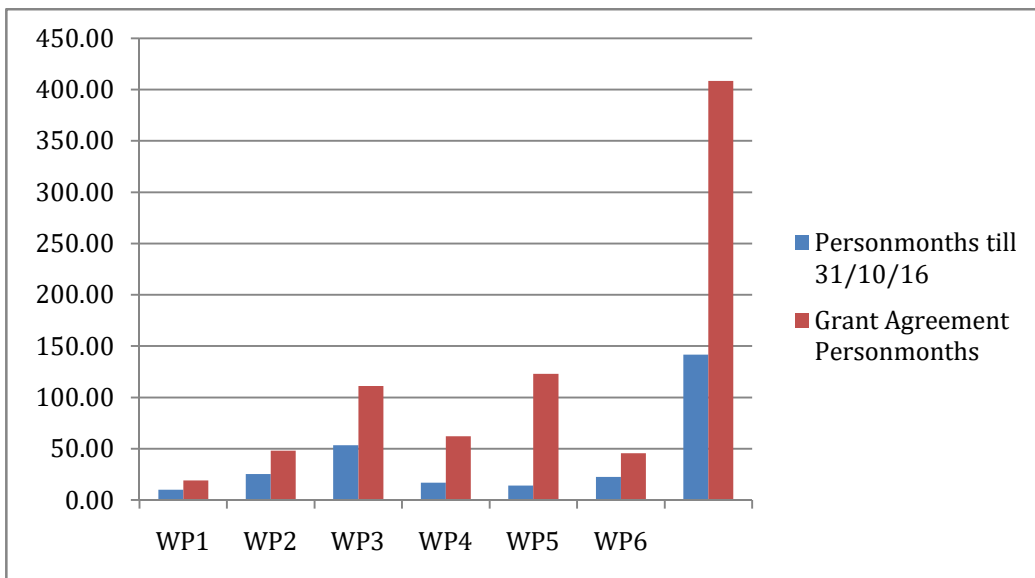
33.30% of total budget has been consumed for the activities described above (33.24% of the personnel costs, 33.93% of the other direct costs, 33.31% of the indirect costs), as presented in the following graph:

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This graph does not include the terminated partner expenses, so resources consumption is actually more than 33.30%.

34.65% of the personmonths have been consumed for the activities described above:



Personmonths of the terminated partner are not included, since they were not reported.

This report was written by Athena R.C. on the behalf of the UMOBILE consortium