

Activity Report Summary of the ASGroup

During the period September 2007-September 2008 the AS Group continued its research in three major areas of mobile systems: Quality of Service, Trust and Identity Management, and novel paradigm for mobile information management. The group as a living and active entity, show a slight mutation in personnel, acquired new projects, participated in conference organization and published papers in journals and conferences. In this report summary we present the main points of the group status and research activities.

From the point of view of personnel in September 2008 the group was composed of 8 persons, headed by Prof. Dimitri Konstantas, (who is since July 2007 Vice-Dean of the Social and Economic Science Faculty sharing his time between research and administration). In April 2008, M. Michel Deriaz, completed his PhD and left group becoming the R&D director (Europe) at Organix IT. On the other hand, two new PhD students joined the group, M. Dejan Munjin and M. Xavier Titi.

During the last 12 months the group gained a series of projects from the European Commission (7th FP) and the Swiss Federal Government. In addition our group participates in the COST action IC0703 TMA – *Traffic Monitoring and Analysis: theory, techniques, tools and applications for the future networks*.

Project name	Support from	Start	End	Total Funding
Geo-Tags	OFFT CTI	1-5-2007	30-4-2009	72.000 CHF
PlayMancer	EU 7 th FP	1-11-2007	30-10-2010	220.000 EUR
PERIMETER	EU 7 th FP	1-5-2008	30-4-2011	270.000 EUR
QoS prediction Service	SER	1-10-2008	30-9-2001	170.000 CHF
TMA	COST	1-2-2008	31-1-2011	- 0 -

From the point of view of recognition of research results, the group published one PhD thesis and 20 papers in international journals, conferences and book chapters (in addition to this technical report which is composed of early or revised versions of some the published papers, as well as unpublished papers - A full list of the published work of the groups is given at the end of the activity report). In addition another 8 publications are in the pipeline to appear in 2009.

Our research, nevertheless, is not performed on an isolated island. We have established active collaboration with a number of research institutes in Europe, exchanging students and researchers, and working together towards common targets. This is reflected in the publications of the group, many of which are written in collaboration with researchers in other institutes. The most important institutes

we collaborate with are the University of Twente in the Netherlands and the School of Computer Science and Information Systems, Birkbeck College of London University in the United Kingdom.

List of Publications (September 2007 – September 2008)

Journals

1. Val Jones, Aart van Halteren, Dimitri Konstantas, Ing Widya, Richard Bults, *An application of augmented MDA for the extended healthcare enterprise*, International Journal of Business Process Integration and Management, Vol 2, No 3, October 2007
2. E. Grandgirard, C. Gertosio and J.-M. Seigneur, *Trust Engines to Preserve the Quality of an Operational Decision System*, in International Journal of Factory Automation, Robotics and Soft Computing/, ISSN 1828 – 6984, 2007.
3. J. Abendroth and J.-M. Seigneur, *Leveraging the Trusted Platform Module for More Trustworthy P2P File Sharing Peer Software*, in Transactions on Communications Journal, WSEAS, 2007.
4. Giovanna Di Marzo Serugendo, Alfredo A. Villalba Castro and Dimitri Konstantas, *Hovering Information* in Works in Progress – Activity Based Computing, IEEE Pervasive Computing Journal, April-June 2008.

PhD Thesis

5. Michel Deriaz, *GeoVTag, Trusting Virtual Tags*, PhD Thesis, University of Geneva, Faculty of Social and Economic Sciences, Thesis No 665, April 2008.

Conferences

6. Katarzyna Wac, Mortaza Bargh, Pravin Pawar, Bert-Jan van Beijnum, Arjan Peddemors, Richard Bults, *Power- and Delay-Aware Mobile Application-Data Flow Adaptation: the MobiHealth System Case Study*, 10th IEEE International Conference on e-Health Networking, Applications & Services (HealthCom 2008), July 2008, Singapore, publisher: IEEE Press
7. Pravin Pawar, Katarzyna Wac, Bert-Jan van Beijnum, Pierre Maret, Aart van Halteren, Hermie Hermens, *Context-Aware Middleware Architecture for Vertical Handover Support to Multi-homed Nomadic Mobile Services*, proceedings of the 23rd Annual ACM Symposium on Applied Computing (ACMSAC08), Ceará, Brazil, publisher: ACM Press
8. Alfredo A. Villalba Castro, Giovanna Di Marzo Serugendo and Dimitri Konstantas, *Hovering Information - Self-Organising Information Using Location-Based Caching Policies*, 2nd ERCIM Workshop on eMobility (in conjunction with WWIC 2008), May 30, 2008 - Tampere, Finland.
9. A. Villalba Castro, G. Di Marzo Serugendo, D. Konstantas, *Hovering Information - Self-Organising Information that Finds its Own Storage*, IEEE International Conference on Sensor Networks, Ubiquitous, and Trustworthy Computing (SUTC'08), Taichung, Taiwan, June 2008

10. L. Ragia, M. Deriaz and J.-M. Seigneur, *Mobile Location Based Services for Trusted Information in Disaster Management*, Proceedings of the 17th International Conference on Information Systems Development IEEE, 2008.
11. E. Grandgirard, C. Gertosio and J.-M. Seigneur, *Trust Engines to Optimize Semi-Automated Industrial Production Planning*, Proceedings of the fourth International Symposium on Industrial Electronics, IEEE, 2007.
12. T. El Maliki and J.-M. Seigneur, *A Survey of User-centric Identity Management Technologies*, Proceedings of the SECURWARE International Conference, IARIA, 2007.
13. T. El Maliki, Y. Durukan and J.-M. Seigneur *EasIDevelop: A Usable and Convenient Identity Management Platform with Strong Authentication, PKI and Biometry*, Proceedings of the 2nd Conference on Advances in Computer Security and Forensics, 2007.
14. O. Powell, J.-M. Seigneur and L. Moraru, *Trustworthily Forwarding Sensor Networks Information to the Internet*, Proceedings of the SECURWARE International Conference, IARIA, 2007.
15. Michel Deriaz, *The Uncertainty of Truth*, proceedings of the Sixth Annual Conference on Privacy, Security and Trust, PST2008, October 1-3, 2008, Delta Fredericton, Fredericton, New Brunswick, Canada
16. Elias Kalapanidas, Hikari Watanabe, Costas Davarakis, Hannes Kaufmann, Fernando Fernandez Aranda, Tony Lam, Todor Ganchev and Dimitri Konstantas, *PlayMancer: A European Serious Gaming 3D Environment*, Proceedings of the 2nd International Workshop on e-health Services and Technologies - EHST 2008 in Conjunction with ICISOFT 2008, Porto-Portugal, July 2008, pp 51-59 ISBN 978-989-8111-56-2

Book Chapters

17. Jean-Marc Seigneur, *Social Trust of Virtual Identities*, book chapter in *Computing with Social Trust and Reputation*, ISBN 978-1-84800-355-2, Springer, 2008.
18. Jean-Marc Seigneur, *AmbiTrust? Immutable and Context-Aware Trust Fusion* book chapter in *Trust Management in Virtual Environment*, ISBN 81-314-1254-1, Icfai University Press, 2008.
19. J.-M. Seigneur, L. Moraru and O. Powell, *Survivability of Sensors with Key and Trust Management*, book chapter in *Handbook of Research on Wireless Security*, ISBN 978-1-59904-899-4, IGI Global, 2008.
20. J.-M. Seigneur and C. D. Jensen *User-Centric Identity, Trust and Privacy*, book chapter in *Trust in E-services: Technologies, Practices and Challenges*, ISBN 978-1599042077, Idea Group Publishing, 2007.
21. Dimitri Konstantas, *An Overview of Wearable and Implantable Medical Sensors in the IMIA Yearbook of Medical Informatics 2007*, Geissbuhler A, Haux R, Kulikowski C, editors, IMIA and Schattauer GmbH

To appear in 2009

Books

1. "Collaborative Security Technologies for Data Assurance Management: Building Systematic Trust", J.-M. Seigneur and A. Slagell, co-editor of the book, IGI Global, (to appear in 2009)

Book Chapters

2. Katarzyna Wac, Richard Bults, Bert-Jan van Beijnum, Hong Chen, Dimitri Konstantas, *Toward Mobile Web 2.0-based business methods: Collaborative QoS-information sharing for mobile service users*, book chapter in *Mobile and Ubiquitous Commerce: Advanced E-Business Methods*, M. Head, (Eds.), IGI Global publisher, vol. 4 (to appear in 2009)
3. Jean Marc Seigneur, "Reputation Management Services", book chapter in *Computer And Information Security Handbook*, Elsevier (To appear in 2009)
4. Tewfik El Maliki and Jean-Marc Seigneur, *Identity Management Services*, book chapter of "Computer And Information Security Handbook", Elsevier, (to appear in 2009).
5. J.-M. Seigneur, Engineering Reputation Services with Collaborative Information Systems., book chapter in *Collaborative Security Technologies for Data Assurance Management: Building Systematic Trust*, IGI Global (to appear in 2009).
6. J.-M. Seigneur and P. Dondio, *Trust and Reputation for Successful Software Self-organisation*, book chapter in *Self-Organising Software*, Springer, (to appear in 2009).
7. J.-M. Seigneur, G. Lenzini and B. Hulsebosch "Adaptive Trust Management", book chapter in "Self-Organising Software", Springer (to appear in 2009)

Conferences

8. Pravin Pawar, Bert-Jan van Beijnum, Katarzyna Wac, Hermie Hermens, Dimitri Konstantas *Towards Location Based QoS-Aware Network Selection Mechanism for the Nomadic Mobile Services*, to be presented in 6th Annual IEEE Consumer Communications & Networking Conference - IEEE CCNC 2009, 10 - 13 January 2009 in Las Vegas, Nevada