



COMPLETED PROJECT



Seamless and adaptive services over multiple access networks

The SEAMLESS project aims to provide technical solutions to ensure mobility and seamless services over heterogeneous radio access technologies.

It considers the context and the environment of the French public transportation company, the RATP, including cellular networks such as GPRS and UMTS as well as non-cellular wireless networks such as WiFi inside and around stations and on board busses.

Several challenges are addressed at decisional, architectural and protocol levels. Among them:

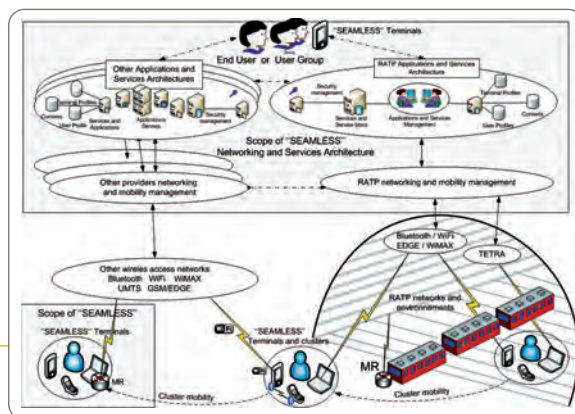
- ▶ The diversity of environments and wireless technologies, with what follows in terms of vertical handover and multi-homing.
- ▶ The heterogeneity of terminals.
- ▶ Context information management in order to make the right decisions for mobility, multi-homing and service adaptation.
- ▶ Decision-making processes based on complex, rich and incomplete information.

PROGRESS BEYOND THE STATE OF THE ART

The scope of the SEAMLESS project considers the general problem of mobility management with what's next in terms of service adaptation and context management.

On mobility management, the project has considered both terminals mobility and network mobility. After analyzing the state of the art in these areas, two important issues were considered as SEAMLESS priorities:

- ▶ Smart management of mobility and multihoming
- ▶ Protocols for vertical mobility and multihoming
- ▶ Service adaptation based on the context.



MAJOR PROJECT OUTCOMES

▶ Publications:

11 publications of which:

- Alexandru Petrescu and Alexis Olivereau, « Mobile VPN and V2V NEMO for Public Transportation », Lille, The 9th International Conference on ITS Telecommunications, ITST 2009 Lille, October 20-22, 2009.
- BELAID Djamel, MUKHTAR Hamid, and OZANNE Alain, "Service composition based on functional and non-functional descriptions in SCA", The 1st International Workshop on Advanced Techniques for Web Services [AT4WS 2009], in conjunction with the 11th International Conference on Enterprise Information, Systems (ICEIS 2009), 6-7 May 2009, Milan, Italy, 2009.
- BELAID Djamel, MUKHTAR Hamid, OZANNE Alain, and TATA Samir, "Dynamic component selection for SCA applications", The 9th IFIP Conference on e-Business, e-Services, and e-Society (I3E 2009), 23-25 September, Nancy, France, IFIP, 23-25 September 2009, France, 2009.
- MUKHTAR Hamid, BELAID Djamel, and BERNARD Guy, "Session continuity and splitting of multimedia applications using qualitative user preferences", ACM Mobility Conference 2009: The International Conference on Mobile Technology, Applications and Systems, ACM, 02-04 September 2009, Nice, France, 2009.

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PROJECT DATA

Coordinator:
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Call:
ANR

Start date:
April 2008

Duration:
30 months

Global budget (M€):
3.4

Funding (M€):
1.4