



University of the Aegean



System Engineering for Security and Dependability

Partners:

- Engineering Ingegneria Informatica (I)
- Athens Technology Center (GR)
- ATOS (E)
- City University of London (UK)
- Deep Blue (I)
- Fraunhofer SIT (D)
- Katholieke Universiteit Leuven (B)
- NOKIA (FIN)
- SAP (D)
- Security Technology Competence Center (SL)
- Strategies Telecoms & Multimedia (F)
- Thales (F)
- University of Trento (I)
- University of the Aegean (GR)
- University of Malaga (E)

Project identity:

IST-027587-SERENITY

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Consortium: 7.800.000 €
University of the Aegean: 372.226 €

Project motivation, scope and objectives

Future Ambient Intelligence (AmI) environments will contain a large number of heterogeneous computing and communication infrastructures and devices providing new functionalities, enhance productivity, and facilitate everyday tasks. In the new AmI scenarios, not only systems but also applications will have to make effective use of the resources that are available on-the-fly and adapt to different hardware, software and even firmware configurations.

The concepts of system and application, as we know them today, will disappear, evolving from static architectures to architectures that will be sensitive, adaptive, context-aware and responsive to users' needs and habits. The combination of heterogeneity, mobility, dynamism, sheer number of devices, along with the growing demands for security and dependability (S&D), is going to make the S&D provision for these AmI systems increasingly difficult to achieve with existing security solutions, engineering approaches and tools.

The ultimate aim of SERENITY is to enhance security and dependability for AmI ecosystems by providing a framework supporting the automated integration, configuration, monitoring and adaptation of security and dependability mechanisms for such ecosystems.

Providing S&D in AmI ecosystems requires the dynamic application of the expertise of security engineers. SERENITY will capture this expertise and make it available, supported by automated tools, to the AmI ecosystems. The means that will be employed for capturing this expertise will be S&D patterns and integration schemes.

We envisage that this framework will be used by systems that will delegate the implementation and monitoring of security mechanisms and system providers or end-users that need to control their security requirements.

“ There is more information available at our fingertips during a walk in the woods than in any computer system, yet people find a walk among trees relaxing and computers frustrating ” (M. Wieser)