



EMMON

EMbedded MONitoring

EXECUTIVE summary

EMMON's quantified goal is to create an integrated framework of technologies to enable large scale and dense wireless sensor networks that allow effective monitoring for more than 10,000 devices, performing continuous environmental monitoring and situation analysis, targeted at specific scenarios (e.g. urban environments, water pipelines, civil protection, etc.).

RELEVANCE CALL 2008 objectives

EMMON is relevant to ARTEMIS JU Industrial priorities 3.1.2 Seamless connectivity and middleware (researching WSN cross domain connectivity, middleware services and communication capabilities) and 3.1.1 Reference designs and architectures (architectural scalability and dependability plus a network deployment and planning toolset to ensure easier, reliable and timely system services in large scale WSN deployments).

MARKET innovation

EMMON will tackle the scalability challenge in Large Scale WSNs, which means using thousands of embedded networking devices in large-scale distributed application scenarios, by covering the technology chain from OS to middleware, and from protocols to system integration in large geographical areas. The potential market impact is to facilitate and enable deployments of large scale and dense sensor networks, offering robust and reliable near real-time requirements for environmental monitoring applications, providing unprecedented situation analysis and awareness (data and information), to better help decision makers, organizations and authorities to reduce and optimize costs and provide better services to citizens.

TECHNICAL innovation

EMMON research will surpass the existing state of the art by developing an innovate and scalable Large Scale WSN network architecture, composed of new energy-efficient and reliable communication protocols and stacks, middleware layers, and a geographical visualization platform specifically designed for Large Scale Wireless Sensor Networks (LSWSN).

The project goal is to create an integrated framework of technologies for large scale and dense wireless sensor networks that allow effective monitoring for more than 10,000 devices (10 times more sensors than today's existing deployments), which is reliable and robust. The network design coming out from EMMON will be as generic and horizontal as possible, resulting from the gathering and combination of multiple project end-user needs and requirements, and from diverse domains such as water, ocean, urban environments or forest / civil protection.



PROJECT COORDINATOR
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START
March 2009

INSTITUTION
Critical Software, SA

DURATION
36 months

EMAIL
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TOTAL INVESTMENT
€2.56 M

WEBSITE
www.artemis-emmon.eu

PARTICIPATING ORGANISATIONS
9

NUMBER OF COUNTRIES
6

