

### Software Optimization Techniques for Multi-Core Processors

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Explore various techniques for reducing lock contention, optimizing CPU cache usage, minimizing I/O bottlenecks, achieving greater concurrency and parallelism, and more....



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## Aonix Provides PERC Ultra Java Virtual Machine Technology and Security Expertise to TECOM

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Birmingham, UK, October 1, 2008 — Aonix®, a provider of complete solutions for safety- and mission-critical applications, announces its participation in TECOM, Trusted Embedded COMputing, an Information Technology for European Advancement (ITEA) project chartered to create solutions and architectures for integrity and security requirements. TECOM, budgeted at 1516639 €, is developing a trusted secure execution environment capable of withstanding the increasing number of external security attacks. Aonix will provide the PERC Ultra virtual machine and its expertise in security and complex embedded systems to the TECOM project.

With the increasing dependency on embedded systems, embedded devices are becoming more complex, dynamic, heterogeneous, and progressively connected. As a consequence, the reliability and security of these systems have become a major concern, particularly since external security attacks primarily at the IT level have eroded peoples confidence. Aonix along with the ITEA consortium aims to create an integrity and security platform that can gain user acceptance and the confidence of the market.

“TECOM establishes a foundation for trusted computing that will assure the marketplace that embedded systems are secure,” noted Laurent Mares, Aonix vice president of sales Europe. “With the increased connection of embedded devices to the worldwide Internet, security has become critical. We are proud to share Aonix's expertise in designing trusted environments in the embedded world with the TECOM consortium.”

TECOM concepts will be validated with a set of miscellaneous applications like video control, Digital Rights management and home-control applications. Since many of these applications will be developed in Java, Aonix's PERC Ultra plays an essential role in the trusted execution environment. PERC Ultra delivers the portability and scalability benefits of Java to developers of trusted software components. Coupled with its real-time performance and determinism, PERC Ultra becomes an ideal component for porting trusted execution environments to the many different hardware platforms found in embedded devices today.

Aonix will adapt its PERC virtual machine technology in two ways. First, it will be integrated with the TECOM middleware security layer and TECOM trusted operating systems. Aonix will also participate in a home-control demonstration application using the OSGi framework. OSGi provides support for multi-application systems that could potentially lead to major security issues by one application preventing others to execute properly. This kind of threat can be avoided with partitioning execution environments in which each partition is assigned a fixed set of resources. The PERC virtual machine will be adapted to take advantage of such partitioning features.

In this TECOM project, Aonix joins key players in the European and global

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markets. EADS, Thomson, Trango, Trialog, Fagor, Ikerlan, Visual Tools, Technikon will participate in definition and implementation activities together with Universidad Politécnic de Madrid and the Universidad Politécnic de Valencia.

About TECOM-ITEA2

This project is partially funded by ITEA2

About Aonix®

Aonix offers high productivity solutions for complex embedded application development in industries as diverse as aerospace, telecommunications, transportation and automotive, networking, defense, industrial and business automation, and consumer electronics. Aonix delivers the leading high-reliability, real-time embedded virtual machine solution for running Java™ programs deployed today and has the largest number of certified Ada applications at the highest level of criticality. Headquartered in San Diego, CA and Paris, France, Aonix operates sales offices throughout North America and Europe in addition to offering a network of international distributors. For more information, visit [www.aonix.com](http://www.aonix.com).

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