

# **Ambient Intelligence and the Development of Embedded System Software**

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**Abstract** Traditionally, many embedded software products have been developed without support from system software. When system software has been used it has consisted of simple device drivers and an operating system. With an increasing demand for wired and wireless communication, embedded software has started to use middleware to hide the implementation details of low-level communication. The vision of Ambient Intelligence is that applications will be more and more distributed and will run on platforms offering dynamically varying resources. Moreover, this vision claims that applications should be adaptive to changes in the applications environment and adjust according to different user's preferences. In this article, we discuss the requirements that Ambient Intelligence will set to the system software. We also present some of the solutions that have been proposed to address the increasing demand for system software.

**Keywords** System software, Software architecture, Embedded software