Abstract

This work focus on distributed architectures adaptation requisites, common in emerging ubiquitous (or pervasive) computation systems and autonomous computation. The first kind acts in environments where available devices and user's needs vary in time. The second kind aims to achieve several objectives automatically, such as failure repairing, time response optimization or energy economy, among others. The availability of mechanisms that make easier the operation-time (dynamic) adaptation of components of the architecture has shown useful in attending the requisites of these system classes.

In this context, this work presents a support that makes viable the distributed architectures adaptation process, denominated SDA-A (*Support for Dynamic Architecture-Adaptation*). To do so, it utilizes available adaptation support tools and technologies, such as *Java Management Extensions (JMX)* standard and *Java bytecode Javassist* manipulation toolkit. Through *SDA-A* it is possible to insert, update and remove components of a syten architecture, making possible to redefine links between new or existing components. Experiments performed demonstrated that *the* overhead generated by *SDA-A* and the costs generated by a components insertion, deletion or exchange are compatible with the considered applications flexibility and performance requisites.