ABSTRACT

This work proposes a reusable architecture that enables the management of a supporting infrastructure for Web applications using virtual machines. The goal of the architecture is to ensure quality of service, acting on physical servers (hosts) or manipulating the virtual machines, and evaluating how broadly it complies with the operating restrictions (maximum response time). In addition, through the rational use of resources, the proposal aims at saving energy. The work also includes a performance evaluation carried out over a system implemented based on the architecture. This evaluation shows that the proposal is fully functional and how it can be advantageous in terms of use of resources, avoiding waste, yet maintaining the application's quality of service within acceptable levels.

Keywords: Virtualization. Energy Saving. Resource Management. Web Servers.