

## عنوان مقاله:

Resource allocation optimization in cloud computing using the whale optimization algorithm

## محل انتشار:

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## نویسندگان:

Department of Computer Islamic Azad University Neyshabur Branch, Neyshabur, Iran - - -

Iran University of Science and Technology, Tehran, Iran - - -

Department of Computer Engineering, Mashhad Branch, Islamic Azad University Mashhad, Iran - - -

Department of Computer Islamic Azad University Neyshabur Branch, Neyshabur, Iran - - -

## خلاصه مقاله:

Cloud computing is a massively distributed system in which existing resources interact with user-requested tasks to meet their requests. In such a system, the problem of optimizing Resource Allocation and Scheduling (RAS) is vital, because resource allocation and scheduling deals with the mapping between resources and user requests and also is responsible for optimal allocating of tasks to available resources. In the cloud environment, a user may face hundreds of computational resources to do his work. Therefore, manually resource allocation and scheduling are impossible, and having a schedule between user requests and available resources seems logical. In this paper, we used Whale Optimization Algorithm (WOA) to solve resource allocation and task scheduling problem in cloud computing to have optimal resource allocation and reduce the total runtime of requested services by users. The proposed algorithm is compared with the other existed algorithms. Results indicate the proper performance of the proposed algorithm than other ones.

## کلمات کلیدی:

cloud computing, Makespan, Task, Resource, whale optimization algorithm

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1561407>

