Main challenge of existing resource discovery service is the lack of support from task oriented query. This paper puts forward a design of task-oriented grid resource discovery service based on learning automata to enable users to dynamically discover the grid resources which are suitable for their task. The core of this service is learning automata based grid resource
classifier, which periodically accesses the Meta computing directory service and dynamically classifier the grid resources into task-oriented categories according to the real-time state of grid computing environment. Users can invoke this service and pass her or his task type as a parameter to discover the current most suitable grid resources. Grid resource allocation manager also can interact with this service to improve its practicability and efficiency.

Reference

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**Index Terms**

Computer Science  Distributed Computing

**Key words**

Grid  resource discovery  MANET
Learning automata  task oriented