A taxonomy of grid resource selection mechanism

Abstract:

Resources in grid systems are heterogeneous, geographically distributed, belong to different administrative domains and apply different management policies. The roles of resource selection mechanisms are to identify, select and allocate the most suitable resources for a given set of tasks. This paper presents a taxonomy that facilitates identifying and classifying the mechanisms used in the implementation of grid resource selection process, as well as describing the most significant features of grid resource selection mechanisms. The benefit of this taxonomy is to highlight the main aspects of the selection mechanisms, which can help researchers and developers of grid resource management systems.