

GridSolve is a client-server system that enables users to solve complex scientific problems remotely. The system allows users to access both hardware and software resources distributed across a network. GridSolve searches for computational resources on a network, chooses the best ones available, and using retry for fault-tolerance solves a problem, and returns the answers to the user. A load-balancing policy is used by the GridSolve system to ensure good performance by enabling the system to use the computational resources available as efficiently as possible. Our framework is based on the premise that distributed computations involve resources, processes, data, and users, and that secure yet flexible mechanisms for cooperation and communication between these entities is the key to metacomputing infrastructures.