Scalable communication infrastructure through resource provisioning approach for reliable social networking system

ABSTRACT

Nowadays social networking system serves as an important information technology (IT) infrastructure of growth for community. Demands for scalable resource sharing in the system have become extremely important due to strong requirements imposed by the dynamic behaviour of users and resource communities. With the increasing number of entities in the system, inadequate information and unsuccessful accessibility of resources have becoming critical factors that degraded system performance. We present a hybrid resource provision scheme for improving resource communication in terms of availability and reliability while aiming for cost-effective processing. Specifically, our resource provision scheme incorporates an automated analytic for achieving accurate resource information while minimizing processing overheads and inter-communication latency. The provision scheme then incorporates trust-based scheduling policy to deal with diverse processing requirements and heterogeneous resources. Simulation experiments proved the efficacy of our scheme in achieving better trade-off between system scalability and performance; and helps sustain cost-effective computing.

Keyword: Resource management; Communication infrastructure; Social computing; Social networking system