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(54) Title: A SMART STUB OR ENTERPRISE JAVA™ BEAN IN A DISTRIBUTED PROCESSING SYSTEM

(57) Abstract

A clustered enterprise Java distributed processing system (380) is provided. The distributed processing system includes a first and a second computer coupled to a communication medium (305). The first computer includes a Java virtual machine (JVM, 354) and kernel software (355) for transferring messages, including a remote Java virtual machine (RJVM). The second computer includes a JVM (354) and a kernel software layer having a RJVM (356). Messages are passed from a RJVM (365) to the JVM (354) in one computer to the JVM (354) and RJVM (365) in the second computer. Message may be forwarded through an intermediate server or rerouted after a network reconfiguration. Each computer includes a Smart stub having a replica handler, including a load balancing software component and a failover software component. Each computer includes a duplicated service naming tree for storing a pool of Smart stubs at a node. The computers may be programmed in a stateless, stateless factory, or a stateful programming model. The clustered enterprise Java distributed processing system (380) allows for enhanced scalability and fault tolerance.

