Abstract

In distributed systems, node crashes [1] and abort processes may result orphan computations: computations are still active and its results are no longer needed [5]. Orphans are undesirable because they waste system resources [3] and may make inconsistent data [4]. In this paper we present a new approach called global log and monitor approach to cope up with orphan in a more effective way. By this method orphans can be killed immediately after the node crash or abort process happens. No need to wait until the nodes get rebooted as the other methods does. This approach deals with the problem of grand orphans [2] as well. The grand orphans are by orphans who make further RPCs. i.e., the grand orphans are the result of nested transactions.

**Index Terms**

Computer Science
Internet
Communications

**Key words**

RPC (Remote procedure call)
distributed systems
orphan
Global log