Addressing the Reviewer's Comments

Patrick Th. Eugster

January 18, 2001

First Reviewer

The first reviewer has pointed out that JMS is a very important issue in the industrial environment. He suggested thus that we should clarify on whether JMS addresses issues covered in DACE, and in that sense, whether DACE could be implemented on top of JMS.

Accordingly, we have beefed up the discussion of JMS in Section 8 on related work. More precisely, at the end of Section 8.1 we reveal that it could be imaginable both to realize DACs on top of JMS, or conversely, to implement the JMS API on top of DACS. With respect to the possible clashes expressed by the first reviewer: (1) the selector mechanism in JMS corresponds to content-based filtering, which is present in DACE and can be matched in both ways. To support readers interested in more details on content-based publish/subscribe with DACE, we have added a reference to a paper describing content-based p/s with DACs. (2) Subtopics can be matched easily, because the JMS is so general that it does not force any naming scheme.

Second Reviewer

The second reviewer was mainly concerned with performance measurements, especially showing the overhead of our protocol with respect to reliability and our membership approach.

To give more information on the unreliable broadcast we compare our reliable algorithm with, we have added a figure showing the loss rate. The overhead of our reliable protocol (the overhead of reliability) is given in a figure comparing the throughput of unreliable and reliable broadcast, since the unreliable broadcast is a primitive "multisend" algorithm. The overhead of our membership as suggested by the second reviewer, can not be shown when messages are broadcast. As we explain, all information relative to the membership is piggybacked by payload messages (broadcast by the application). Only in the absence of such messages are there any "explicit" membership messages.