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First Progress Report on Specification of probabilistic reliable broadcast
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Short Description

This deliverable gives a brief report on the activity in WP2: Specification of Probabilistic Reliable Broadcast during the first 18 months.

Good progress was made towards the goal of this workpackage: developing a comprehensive technique to measure the reliability of probabilistic broadcast protocols. We introduced a new probabilistic specification of reliable broadcast communication primitives, called Delta-Reliable Broadcast. This specification captures in a precise way the reliability of practical broadcast algorithms that, on the one hand, were devised with some form of reliability in mind but, on the other hand, are not considered reliable according to “traditional” reliability specifications.

The use of our specification is illustrated by precisely measuring and comparing the reliability of two popular broadcast algorithms, namely Bimodal Multicast and IP Multicast. In particular, we quantified how the reliability of each algorithm scales with the size of the system.

Partner owning:	EPFL
Partner contributing:	EPFL
Available to:	Public