

QoS: (still) a Grand Challenge?

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Abstract: Quality of Service for distributed computing systems has been an active research topic since the early 1990s. Arguably, the only thing that ultimately matters is whether a system provides the QoS that it was designed to deliver -- and which the users of the system expect to receive. Therefore, delivering QoS is, and always has been, the major purpose of any system, and is a crucial research topic in its own right. However, the goal of QoS has proved to be an elusive, and sometimes frustrating, concept to put into practice.

Grand challenges (for example 'the silent aircraft') are often seen as an excellent way of delivering an important outcome as well as stimulating unforeseen research directions.

This talk explores the following questions: was QoS ever stated as a grand challenge; what has the copious research in QoS delivered; what remains to be done in QoS work; should QoS now be embedded as a theme in other research topics because that is the best way to stimulate the production of specific results in the QoS space; alternatively, should QoS (still) be regarded as a grand challenge, and if so how should we re-state the problem and break it down into more manageable and specific targets?