Title: Challenges in achieving interoperability in distributed systems: a survey of literature

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Abstract :

As need for collaboration and distributed systems among organizations increase, there is the challenge of different standards in almost all communication issues. This calls for scrutiny of systems used by different organizations or units of the same organization in an effort to achieve distributed systems. Available literature on this topic is limited and there is lack of an assessment framework to determine which system has attained what level of interoperability. We discuses four strategies or approaches used in achieving some degree of interoperability, as well as issues in distributed systems interoperability. This paper conducts a detailed literature review on interoperability in distributed systems and then proposes a ranking framework to assess interoperability. Currently XML is widely used implementing systems that need to communicate with others. However technical challenges such as semantics, security and legacy databases, together with many managerial issues remain a hindrance to achieving complete interoperability. Keywords: Interoperability, Distributed systems, Legacy Systems, XML.

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