

# A Reputation Management System for Efficient Selection of Disaster Management Team

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**Abstract**— Managing a disaster and emergency situation is a challenging task. Various ICT based systems like the Oasis and SAHANA have been developed to provide necessary collaboration, operational monitoring and resource sharing facilities for different phases of disaster management. As different organizations share their resources and skills in a disaster situation, the concepts related to collaborative networks become more relevant. Under such conditions, one of the issues is related to the efficient partner or team member selection as applicable in the case of collaborative networks. Although different partner selection mechanisms have been proposed in the literature of collaborative networks but considering the dynamic context of trust, these cannot be applied directly in the disaster management situation. Trust and reputation have been identified as one of the important factors for the efficient disaster management in the related literature. The current work focuses on the development of a reputation management system for efficient selection of disaster management team. For this, a framework identifies important factors having impact on the reputation and trust of a particular partner working in collaboration with other organizations, proposes a Service Oriented Architecture to extract information from information sources and finally proposes an algorithm for calculating the reputation score. The system can be applied in team formation and performance management system of various disaster management support tools..

**Keyword**—disaster; emergency management; reputation; trust; virtual organization



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