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Cloud Computing for Community-Based Disaster Management: A Case for the Philippines
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Content:
Due to its geographic and geological location and physical characteristics, the Philippines has become one of the most disaster-hit countries in the world. It is exposed to a variety of hazards such as floods, earthquakes, typhoons, storm surges, tsunamis, volcanic eruptions, landslides, droughts, and many others. Recent statistics show that worldwide the Philippines has one of the highest number of people affected by natural disasters and has one of the highest disaster risk index. In this study we explore the use of cloud computing for community-based disaster management in the Philippines. We aim to develop for the Philippines a "community-based, effective and self-scalable cloud computing environment in which a diverse set of organizations and personnel can contribute their resources, such as data, knowledge, storage and computing platform to the cloud."

Our system will be based on the High Performance and Computing Facility (HPC) of the Advanced Science and Technology Institute (ASTI) of the Department of Science and Technology (DOST). Through ASTI's Computing and Archiving Research Project (CoARE) and Science Cloud Infrastructure, we will explore issues such as data access, sharing, integration and utilization.

Keywords: cloud computing, community-based disaster management, science cloud infrastructure

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