

## **Disaster recovery in cloud computing: a survey**

### **ABSTRACT**

Disaster recovery is a persistent problem in IT platforms. This problem is more crucial in cloud computing, because Cloud Service Providers (CSPs) have to provide the services to their customers even if the data center is down, due to a disaster. In the past few years, researchers have shown interest to disaster recovery using cloud computing, and a considerable amount of literature has been published in this area. However, to the best of our knowledge, there is a lack of precise survey for detailed analysis of cloud-based disaster recovery. To fill this gap, this paper provides an extensive survey of disaster recovery concepts and research in the cloud environments. We present different taxonomy of disaster recovery mechanisms, main challenges and proposed solutions. We also describe the cloud-based disaster recovery platforms and identify open issues related to disaster recovery.

**Keyword:** Cloud computing; Disaster recovery; Replication; Backup; Survey