

基于 Ceph 对象存储集群的高可用设计与实现

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摘 要: 为了实现一种基于 ceph 对象存储集群的高可用设计方案, 先搭建 ceph 集群生态系统, 然后设计和部署 ceph 对象存储集群, 实现多对象网关发布对象存储服务, 通过 keystone 统一认证中心保证多区域的用户访问的安全性, 最后整合 haproxy 和 keepalived, 设计和实现基于 ceph 对象存储集群的高可用设计方案。在相同实验环境下, 首先测试 ceph 存储集群健康状况, 保证整个 ceph 存储集群正常运行, 最后通过大量的网络压力测试和分析, 证明本系统能实现 ceph 对象存储集群的高可用性。

关键词: ceph; 高可用性; keystone; 对象存储; haproxy

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Design and Implementation of a High Availability Cluster Based on Ceph Object Storage

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Abstract: In order to design and achieve a high availability cluster, which is based on ceph object storage. At the first, set up a healthy ceph storage cluster, then, design and deploy the ceph object storage cluster that is based on ceph storage cluster, which can achieve the service of multi-object storage. ensure security of cloud storage capabilities from multiple areas of users by keystone Unified Certification Center, finally, design and implement the high available cluster of ceph object storage which integrating Haproxy and Keepalived. Under the same experimental environment, firstly, we must ensure the entire ceph storage cluster is healthy, so we test the ceph storage cluster. Then, ceph object storage cluster must include the function of manipulate and manage data. Last but not the least, through analysing a mount of network pressure tests, which can prove this system can achieve a high availability scheme, which is based on ceph object storage cluster.

Key words: ceph; high availability; keystone; object storage; haproxy

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