

Intrusion Tolerant Multi-cloud Storage - IEEE Conference Publication

Submitted by grigby1 on Thu, 12/28/2017 - 1:21pm

Title Intrusion Tolerant Multi-cloud Storage - IEEE Conference Publication
Publication Type Book
Year of Publication 2016
Authors [Mada, Bharat B.](#), [Banik, Manoj](#), [Wu, Bo Chen](#), [Bein, Doina](#)
Publisher IEEE
ISBN Number 978-1-5090-5263-9
Keywords [composability](#), [intrusion tolerance](#), [pubcrawl](#), [Resiliency](#)

Abstract

Data generation and its utilization in important decision applications has been growing an extremely fast pace, which has made data a valuable resource that needs to be rigorously protected from attackers. Cloud storage systems claim to offer the promise of secure and elastic data storage services that can adapt to changing storage requirements. Despite diligent efforts being made to protect data, recent successful attacks highlight the need for going beyond the existing approaches centered on intrusion prevention, detection and recovery mechanisms. However, most security mechanisms have finite rate of failure, and with intrusion becoming more sophisticated and stealthy, the failure rate appears to be rising. In this paper we propose the use data fragmentation, followed by coding that introduces redundant fragments and dispersing fragments to multiple and independent cloud storage systems with each cloud handling only a single fragments. The paper proposes a multi-cloud fragmented cloud storage system architecture and design of the related software code. Probabilistic analysis is carried to quantify its intrusion tolerance abilities.

URL <http://ieeexplore.ieee.org/document/7796184/>
DOI [10.1109/SmartCloud.2016.30](https://doi.org/10.1109/SmartCloud.2016.30)
Citation Key noauthor_intrusion_nodate



[composability](#) [intrusion tolerance](#) [pubcrawl](#) [Resiliency](#)
