

Exploring Performance Degradation in Virtual Machines Sharing a Cloud Server

ABSTRACT

Cloud computing has become a leading technology for IT infrastructure, with many companies migrating their services to cloud servers in recent years. As cloud services continue to expand, the issue of cloud monitoring has become increasingly important. One important metric to monitor is CPU steal time, which measures the amount of time a virtual CPU waits for the actual CPU. In this study, we focus on the impact of CPU steal time on virtual machine performance and the potential problems that can arise. We implement our work using an OpenStack-based cloud environment and investigate intrusive and non-intrusive monitoring methods. Our analysis provides insights into the importance of CPU steal time monitoring and its impact on cloud performance.