## Monitoring the Update Time of Virtual Firewalls in the Cloud

## Hyunwook Baek, Eric Eide, Robert Ricci and Jacobus Van der Merwe

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School of Computing University of Utah Salt Lake City, UT 84112 USA

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## **Abstract**

Since cloud users do not have direct visibility into the cloud provider's infrastructure, cloud users generally depend on the information provided by the cloud providers when they need to know about states of their virtual resources. In this document, we introduce an approach to monitor the update time of infrastructure level virtual firewalls (called Security Group) from the cloud user's side and technical details for practical deployment of this approach in an OpenStack environment.