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# Security Monitoring in the Cloud: An SLA-Based Approach

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Abstract:

In this paper we present a monitoring architecture that is automatically configured and activated based on a signed Security SLA. Such monitoring architecture integrates different security-related monitoring tools (either developed ad-hoc or already available as open-source or commercial products) to collect measurements related to specific metrics associated with the set of security Service Level Objectives (SLOs) that have been specified in the Security SLA. To demonstrate our approach, we discuss a case study related to detection and management of vulnerabilities and illustrate the integration of the popular open source monitoring system Open VAS into our monitoring architecture. We show how the system is configured and activated by means of available Cloud automation technologies and provide a concrete example of related SLOs and metrics.

**Published in:** Availability, Reliability and Security (ARES), 2015 10th International Conference on

**Date of Conference:** 24-27 Aug. 2015

**Date Added to IEEE Xplore:** 19 October 2015

**ISBN Information:**

**INSPEC Accession Number:** 15539352

**DOI:** 10.1109/ARES.2015.74

**Publisher:** IEEE

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cloud automation technologies, security monitoring, SLA-based approach, monitoring architecture, signed security SLA, security-related monitoring tools, open-source products, security service level objectives, SLO, vulnerability management, open source monitoring system, OpenVAS

Author Keywords

Security Service Level Agreements, Cloud security monitoring, vulnerability monitoring, Open VAS

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