Runtime integrity measurement of a virtualized operating system

Abstract:
This paper presents a new method for integrity measurement of virtualized operating system (OS). It has the advantage over conventional scheme in that it actively monitors the guest OS to report its runtime integrity throughout the entire lifetime of the OS. This is achieved by monitoring critical system calls within the guest OS and detecting malicious behaviour. The mechanism works together with security modules within the guest itself, to provide a complete trust platform. A proof-of-concept prototype was implemented to evaluate the feasibility and performance of the method. Results show that the method can be implemented with minimal performance impact under normal operation of the guest machine.

Stichworte:
data protection, integrity
Semester (für SAP-Datenerfassung):
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Format:
Text

Occurences:
  · Einrichtungen > Fakultäten > Fakultät für Elektrotechnik und Informationstechnik > Lehrstühle und Professuren > Datenverarbeitung (Prof. Diepold) > 2009

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