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Derbeko et al.

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(54) **MALWARE DETECTION IN VIRTUAL MACHINES**

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H04L 29/06	(2006.01)
G06F 9/455	(2018.01)

(52) **U.S. Cl.**
CPC ***H04L 63/1425*** (2013.01); ***G06F 9/45558*** (2013.01); ***H04L 63/145*** (2013.01); ***H04L 63/1416*** (2013.01); *G06F 2009/45587* (2013.01)

(58) **Field of Classification Search**
CPC . G06F 2009/45587; G06F 2009/45595; G06F 21/552; G06F 21/56; G06F 21/566; G06F 21/567; G06F 2201/815; G06F 9/45533; G06F 2009/45591; G06F 2201/84; H04L 63/1416; H04L 63/20; H04L 63/1425
USPC 726/1, 22–24
See application file for complete search history.

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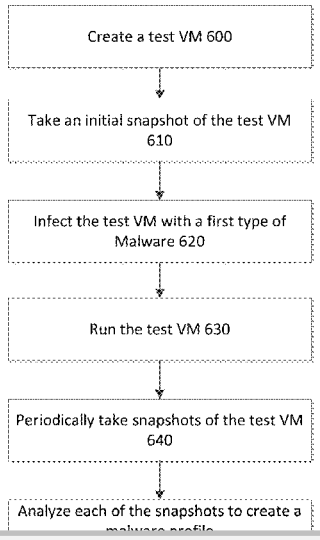
(57) **ABSTRACT**

A system, computer program product, and computer-executable method of detecting malware in a virtual machine (VM), the computer-executable method comprising periodically creating snapshots of the VM, analyzing each of the snapshots in comparison to one or more previous snapshots to determine whether anomalies exist, and based on a threshold amount of anomalies detected, scanning the VM to determine whether malware is detected.

20 Claims, 10 Drawing Sheets



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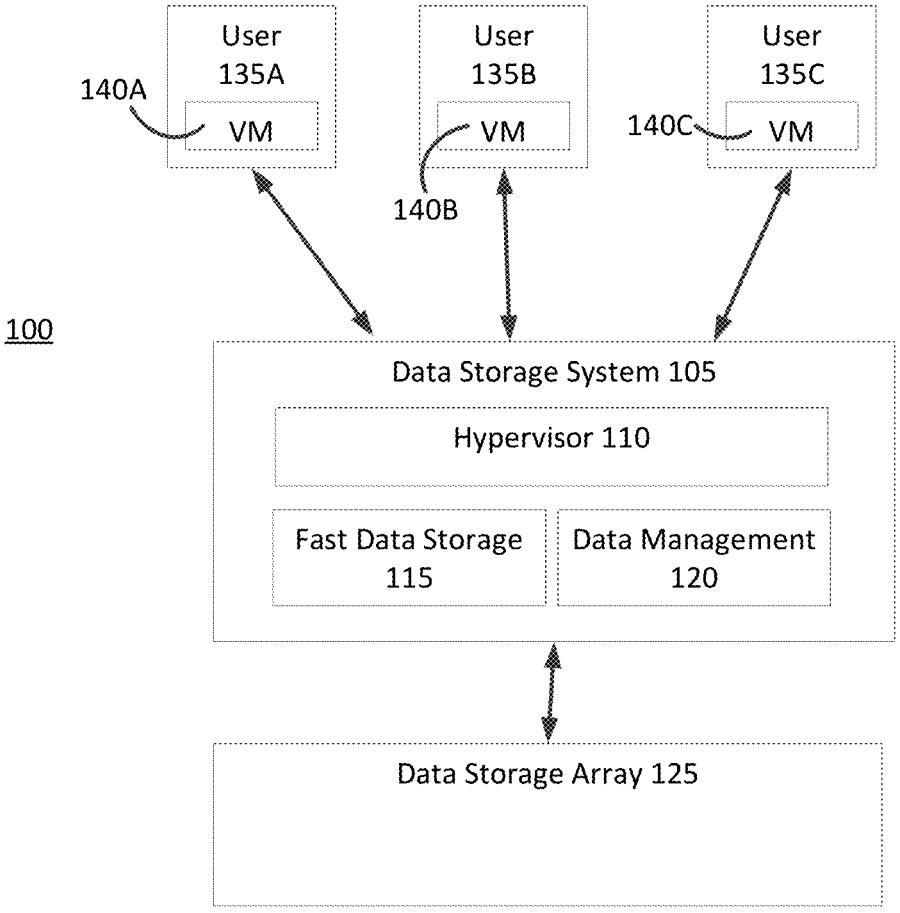

FIG. 1

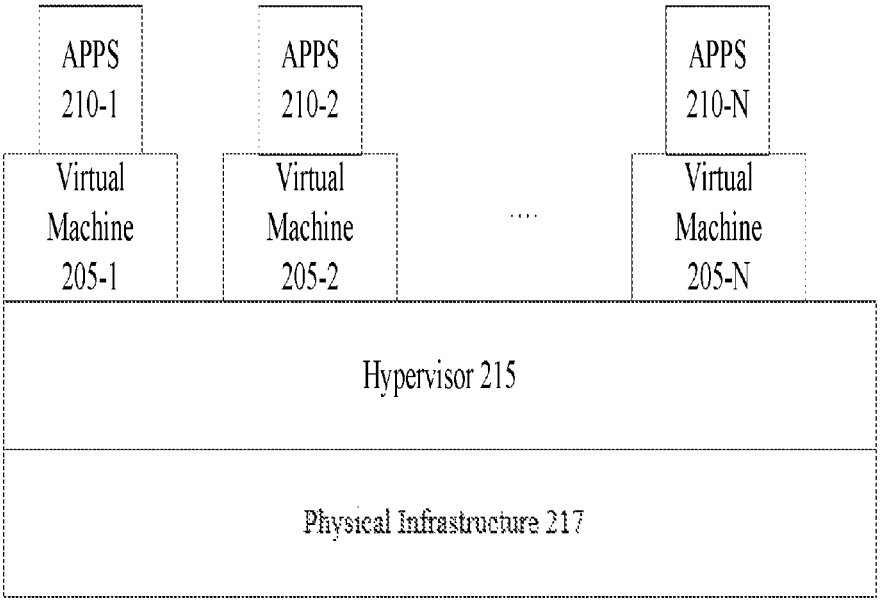

FIG. 2

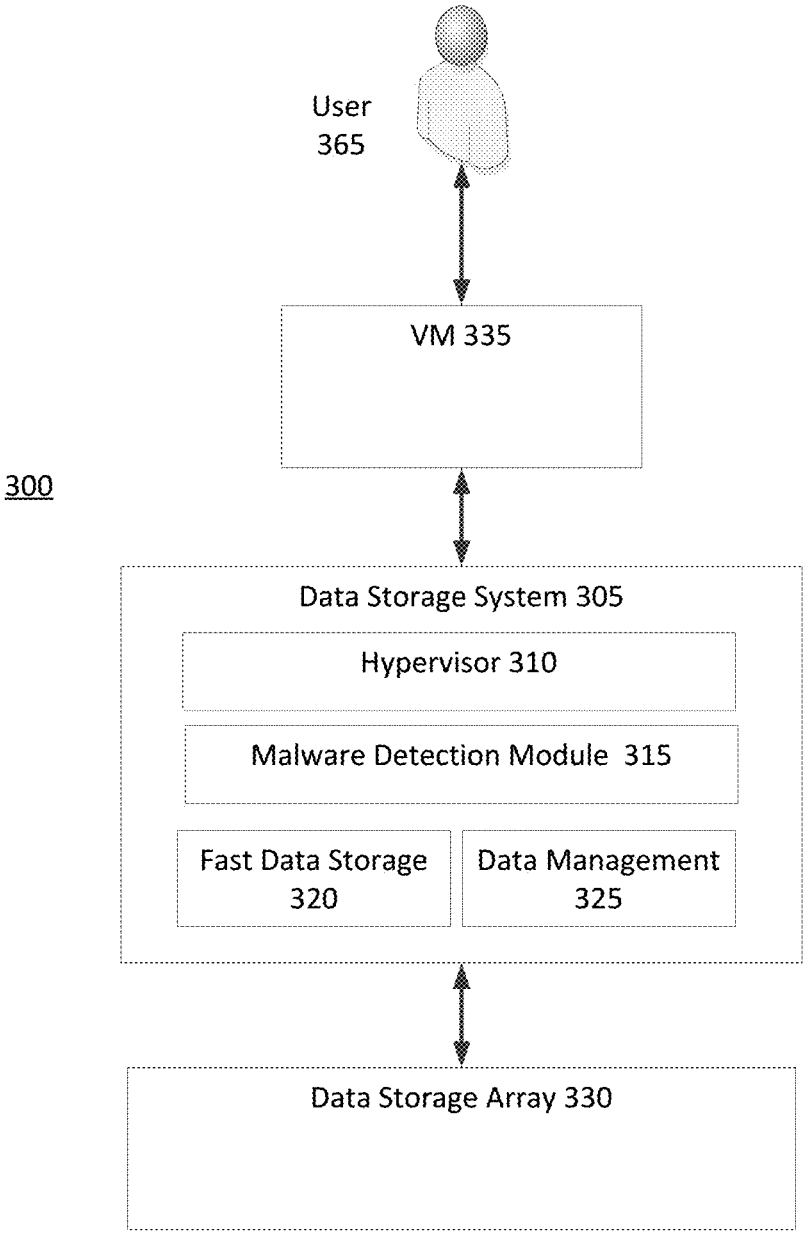

FIG. 3A

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