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(54) **SECURING ANTI-VIRUS SOFTWARE WITH VIRTUALIZATION**

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(57) **ABSTRACT**

The subject disclosure relates to systems and methods that secure anti-virus software through virtualization. Anti-virus systems can be maintained separate from user applications and operating system through virtualization. The user applications and operating system run in a guest virtual machine while anti-virus systems are isolated in a secure virtual machine. The virtual machines are partially interdependent such that the anti-virus systems can monitor user applications and operating systems while the anti-virus systems remain free from possible malicious attack originating from a user environment. Further, the anti-virus system is secured against zero-day attacks so that detection and recovery may occur post zero-day.