

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202311057338 A

(19) INDIA

(22) Date of filing of Application :26/08/2023

(43) Publication Date : 29/09/2023

(54) Title of the invention : SYSTEM FOR PROTECTION IN VIRTUALIZED ENVIRONMENTS USING HYPERVISOR BASED MECHANISMS AND METHOD THEREOF

(51) International classification :G06F0009455000, G06F0021570000, G06F0021530000, G06F0021560000, G06F0012140000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

(71)Name of Applicant :
1)Chitkara University
 Address of Applicant :Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Patiala -----

2)Bluest Mettle Solutions Private Limited
 Name of Applicant : NA
 Address of Applicant : NA

(72)Name of Inventor :
1)MISHRA, Rahul
 Address of Applicant :ODC-4, Panchshil Tech Park, inside Courtyard by Marriott premises, Hinjewadi Phase - 1, Pune - 411057, Maharashtra, India. Pune -----

2)SINGH, Dhiraj
 Address of Applicant :ODC-4, Panchshil Tech Park, inside Courtyard by Marriott premises, Hinjewadi Phase - 1, Pune - 411057, Maharashtra, India. Pune -----

3)MANTRI, Archana
 Address of Applicant :Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Patiala -----

(57) Abstract :

The present disclosure relates generally to field of computer security and virtualization technology. More specifically the present invention relates to a system for protection in virtualized environments using hypervisor based mechanisms. The system (100) includes a hypervisor (102), a communication channel (108), memory protection mechanisms (112), CPU protection mechanisms (114), I/O protection mechanisms (116) and a secure boot process unit (118). The hypervisor (102) provides a virtual machine monitor (VMM) device (104) to control the execution of a plurality of virtual machines (106) and enforces security policies. The communication channel (108) is placed between the virtual machines (106) and a host operating device (110). Further the present invention relates to a method for protection in virtualized environments using hypervisor based mechanisms. Advantageously, the present invention relates to a system for protection of virtualized environments to enhance security and isolation, and to provide a secure isolated execution environment for virtual machines

No. of Pages : 22 No. of Claims : 10