

??? 13, 2009 ??? sunchiahome

KVM ?????? <http://www.linuxinsight.com/finally-user-friendly-virtualization-for-linux.html>

???????????????? Paravirtualization ??? Guest OS ??????????,??? Paravirtualization ?????? Windows ??? ??
???? Full Virtualization ?????????????????,????? Guest OS ??????.????? CPU ?????? Intel (VT) and AMD (AMD-
V) ,??? CPU ?????? Paravirtualization ??????????????.

??? KVM ??????,????????? CPU ?????? Full Virtualization ? Guest OS.??????? KVM ????? Linux ???
VMM(Virtual Machine Monitor) ,???? Linux ??? KVM ??? Linux ??? VMM ,?????????????????????.???? KVM ?
? Guest OS ?? Linux ?????????? Process(?).

??? Linux ?????????? Kernel mode(supervisor mode) ? user mode ??????:

Linux ???(?????????????)???? Kernel mode(supervisor mode) ?????????(Applications) ??? user mode.?????
(Applications)??????????? system call ? kernel ????.? Kernel ??????.?????????????????????.??? CPU - Ring ???
<http://benjr.tw/?q=node/216>

??? Intel (VT) and AMD (AMD-V) ???,Linux ???(?? VMM)??? KVM ???,????????????????,?? KVM ?????? Xen ?
Full virtualization ??,???? Kernel ? User ?????????? Guest mode ??(?????? Guest OS ?????Kernel ? User ??),???
Virtual Machine ? Linux ?????????? Process(?).

KVM ??????????(components)???:

- 1.Kernel Device Driver(managing the virtualization hardware) - ??????? Virtual Machine ???
- 2.User space process - qemu ??? PC ?????,?? KVM ??????? kqemu

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