# Licensing – Hardware Key Support in a Virtual Environment on Linux Platforms

APPLICATIONS NOTE

October 2013

**Description:** Information about the capability of the new USB-Key on Linux based host systems running Windows in a Virtual Machine bearing the ICONICS license server.
**Tested host OS:** Mandriva Linux One Spring 2009, MacOSX 10.5.8, Ubuntu Desktop 9.0.4.
**Tested virtualization:** VMWare Workstation 6.5 for Linux, Sun Virtual Box 3, Microsoft Virtual PC 7.
**Alternative:** A network-enabled USB hub that connects peripheral devices anywhere on a Local Area Network (e.g. AnywhereUSB)
**General Requirements:** This is tested against GENESIS32 version 9.20.

## Introduction

Presently, virtualization has taken an important role in main production environments. As formerly divided fields such as production information and field operations become unified, they now grow together, sharing the same hardware. Yet these fields, while sharing the same hardware, run on independent virtual machines.

Some of these virtualization hosts run on UNIX-like OS. Our customers are asking if ICONICS can run on virtual environments and if there are any problems with the licensing on a virtual machine.

## Results

**Table 1 - Results of Virtualization on Different OS**

| Host OS | Virtualization | Result |
|---|---|---|
| Ubuntu Kernel: 2.6.28.15 | VirtualBox v3 | Not supported |
| | VM-Ware Workstation v6.5 | Working OK |
| Mandrake Kernel: 2.6.29.6 | VirtualBox v3 | Not supported |
| | VM-Ware Workstation v6.5 | Working OK |
| MacOSX (10.5.6) | Virtual PC for Mac v 7.0.3 | Working OK |

## Interpretation

UNIX-Like hosts running VM-Ware Workstation as a virtualization solution, or Microsoft VirtualPC7, has no issues into passing the USB-Key to the guest OS. We expect the same behavior on other Linux Distribution like Open SuSE and Red Hat.

The free (open source) available virtualization solution Virtual Box from Sun (v. 3.0.2) could not pass the USB-Key to the guest OS. The key was listed in the "Available USB Devices" list, but grayed out, Thus not being possible to pass (attach) the Key to the Guest OS. Due to reasons mentioned above ICONICS does not recommend using ICONICS USB HW key together with Virtual Box, because it is not supported inside this Virtual Environment.

As a guest OS we used a Windows XP or Windows 2000, identical results shall be apply to Windows Server 2003.

## Restrictions

In order to avoid legal conflicts note that, ICONICS supports installation in virtual environments. Cloning the virtual machine with a valid license (software license) represents a violation of the license agreement. You can pass the license from one virtual machine to another using the license transfer feature.

## Kernel Information

There also seem to be some limitations on different kernel versions on the host OS. In some forums, you can find that using the kernel version 2.6.25 showed no issues, but using kernel version 2.6.27 had issues. This applies only to the use of the USB HW-Key. In our test, we used a version 2.26.28 and 2.26.29 kernel, having no issues.

## Screens

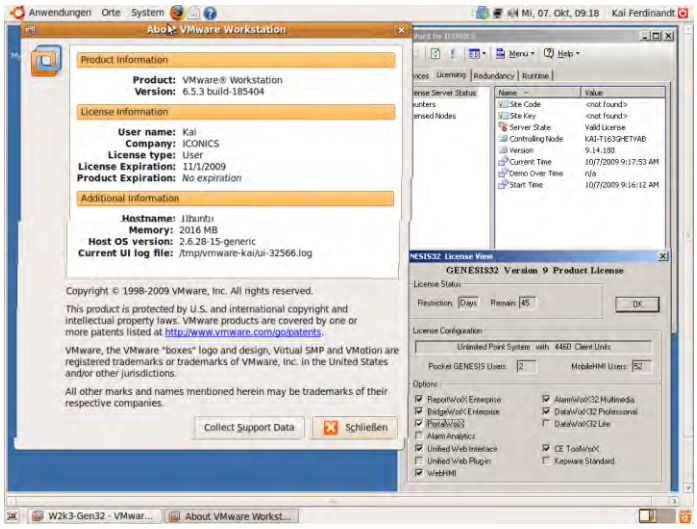


**Figure 1 - ICONICS License in VMWare on Ubuntu**

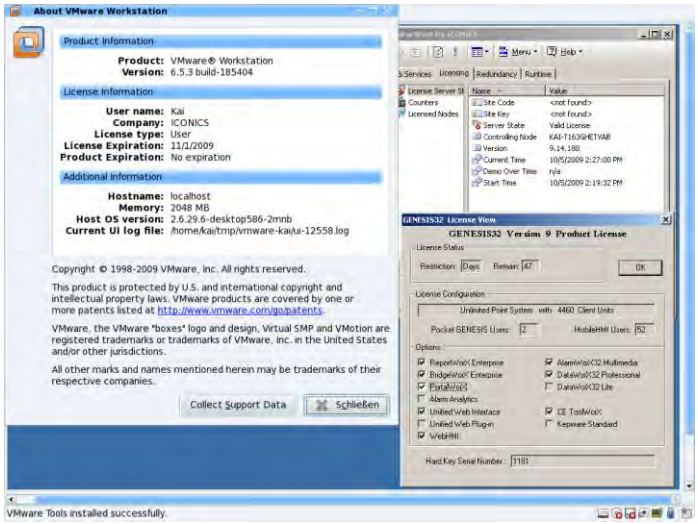


**Figure 2 - ICONICS License in VMWare on Mandrake**

**Figure 3 - ICONICS License in Virtual PC on MacOS X**