

# Virtualization Complexities

## Impact Your Software Licensing Policy

Virtualization continues to have a significant role in enterprise organizations, and software vendors must develop and communicate licensing policies that take into account the impact of virtualization on license servers and applications.

To protect revenue and grow business in a virtual world, software vendors must think differently and offer new go-to-market strategies. The key question is: “How do you protect software revenues in a virtual world, while ensuring your customers are able to take advantage of the benefits offered by virtualization?”

While the balance between revenue protection and flexibility is not new to physical machines, software vendors face challenges as they enforce license agreements in virtual environments, especially using traditional licensing models.

As a software vendor dealing with licensing, you will need to come to terms with how your business will accommodate and enable machine virtualization.

### What is machine virtualization?

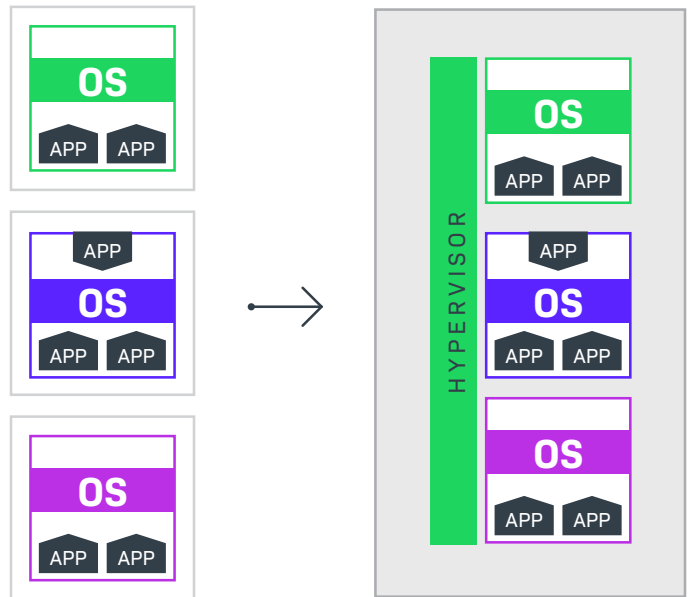
Virtualization is a multi-faceted technology with many applications. In computing, virtualization is a broad term that refers to the abstraction of computer resources. From virtual machine to application virtualization, terminal services and remote control: what does it all mean?

Machine virtualization is the ability to create multiple instances of various operating systems on one physical machine. With virtual machine technologies, each operating system instance on a physical machine can run as if it is the only operating system running on that physical machine.

If you are like most software vendors, you may not have modified your license policies to address virtualization. There are six key questions to answer:

1. Have we defined a virtualization policy and has this policy been communicated to our customers? Can we use the same policy as we do for the physical hardware environment?
2. How many of our customers are using virtualization today? Is there a compliance problem and can it be quantified? What virtual platforms are our customers using and in combination with what OS platforms?

- Are there new markets available because of virtualization, such as time rental via SaaS?
- What specific problem do we want to solve: piracy, compliance or both? Are we concerned with intentional or unintentional overuse?
- Should pricing be based on physical or virtual resources (sub-capacity pricing)?
- Should alternative pricing and licensing models be defined for use in virtual environments? Should we charge more based upon the additional virtualization test matrix involved? Is there a market to charge less for limited capability?



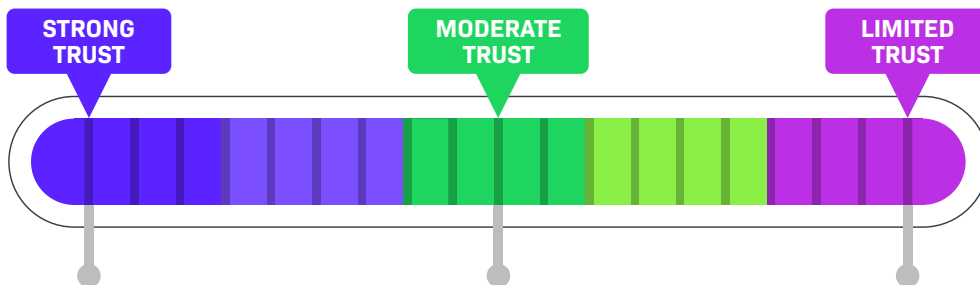
Reverera is well-positioned to help you address these critical questions. Our deep experience in licensing and entitlement management can provide you with industry best practices to define an effective software pricing and licensing strategy for applications running in a virtual environment.

## Reverera Software’s Approach to Virtualization — Protecting your Software Revenues

With FlexNet Licensing’s capabilities, you are able to protect your software revenue by preventing software leakage due to virtualization. Virtualization has changed the software landscape by making it easier to create multiple machines on a single physical machine, or to create copies of multiple machines which can be distributed to other machines in other locations. However, this gives rise to a potential vulnerability in terms of license enforcement and compliance.

FlexNet Licensing’s virtualization capabilities enable you to establish an enforcement strategy based upon the level of trust you have with your customers. For different customers and geographies, you can decide to let your software product operate or not operate in a virtual environment.

For markets and customers in the “limited trust” zone: FlexNet Licensing will enable you to detect the presence of virtual



	STRONG TRUST	MODERATE TRUST	LIMITED TRUST
PRODUCT	Allow	Allow	Prohibit
BINDING	VM Container	Physical	N/A
REPORT	Log File	Log File	N/A

machines and decide not to allow the license server to run, or not to issue a license to an application that is installed on a virtual machine. FlexNet Publisher further allows you to choose to run in certain hypervisors only. This approach is perhaps the safest for risky markets.

For those markets and customers deemed to be in the moderate trust range: the presence of a virtual machine can be detected, and the application bound to one or more physical hardware elements of the host machine (e.g., MAC address or a virtual machine unique identifier). By doing so, you can prevent a license server from being copied and then issuing licenses from a second virtual machine on the same hardware platform.

For markets and customers where strong trust exists: FlexNet Licensing can help you first detect the presence of a virtual machine and then bind the license server to the Universally Unique Identifier of the virtual machine container. Similarly, the license file for an application can be bound to the Universally Unique Identifier of a particular virtual machine container. Further, Trusted Storage will bind to the MAC address, Universally Unique Identifier and (in Windows) the Generation ID. In such scenarios, the end user can take full advantage of the advanced virtualization machine functionalities such as high-availability and fault tolerance by enabling licenses to be moved from one physical machine to another without failure.

## About FlexNet Licensing

FlexNet Licensing enables software vendors and intelligent device manufacturers to increase revenues and simplify customer relationships. FlexNet Licensing is composed of FlexNet Publisher and FlexNet Embedded.

The flexible, yet robust licensing capabilities provided by FlexNet Licensing allow vendors and intelligent device manufacturers to address piracy and ensure protection of intellectual property, as well as to react quickly and efficiently to new and evolving markets through creation of new pricing models and versatile product configurations.

### NEXT STEPS

Modernize your licensing practices.

[LEARN MORE >](#)

Revenera provides the enabling technology to take products to market fast, unlock the value of your IP and accelerate revenue growth—from the edge to the cloud. [www.revenera.com](http://www.revenera.com)