



# Licensing Guide – VMware Infrastructure

# VMware Infrastructure Licensing

## Summary

Compared to the complex licensing of vendors such as Microsoft and Oracle, VMware licensing is simpler, however, there are still many licensing metrics used and 'gotchas' that you need to be aware of. A key note to remember with VMware is that Support is purchased separately to the licenses but must be purchased at the same time.

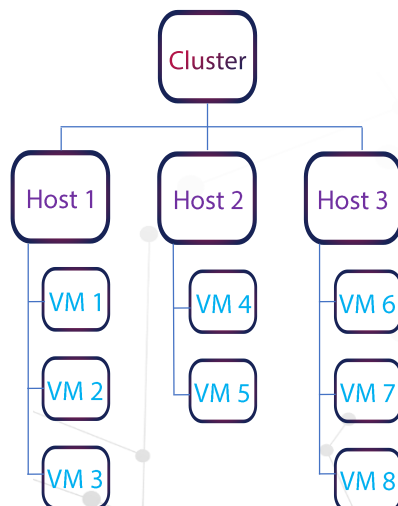
VMware consumption is dictated by license key count, which can be managed using the license usage report discussed under vCenter Server.

## vSphere

vSphere is a suite of server technology products that allows clustering and server virtualization. ESXi is the hypervisor Operating System that is installed on the physical host, which allows dynamic management and allocation of shared resources to VMs. vSphere ESXi 6.0 can support up to 1,024 VMs per host and each cluster can include up to 64 hosts.

All editions of vSphere are licensed on a per CPU metric, therefore, each CPU in the host server running ESXi requires a license.

In the example cluster below, all 3 hosts are identical; 2 CPUs and 8 cores each. To fully license this cluster, you would need 6 vSphere licenses, as in total there are 6 CPUs. ESXi allows sharing of resources between VMs e.g. in Host 1, all resources will be pooled so that VM1,2 & 3 can access all applications. If vMotion is enabled in this cluster, then all 8 VMs can move between all 3 hosts, and again share all resources.



# vCenter Server

vCenter Server is an administrative tool included in the vSphere suite, that enables the management of components within the vSphere platform such as VMs, hosts, clusters and vMotion functionality. Users are also able to export a range of useful reports such as license usage and cluster configuration. The license usage report allows you to monitor which license keys have been used for each product, and a threshold can be set so a notification is sent when the limit is breached, helping customers remain compliant.

vCenter Server is licensed Per Instance i.e. every single installation of vCenter Server on a physical server or VM must have a license.

For example, if your company has vCenter Server installed on 3 servers, then 3 licenses would be required. If it was to be installed on another server, then a 4th license must be acquired.

# vRealize

There are many vRealize products which can be bundled with vSphere, such as Operations Management and Log Insight. These products can be purchased as a suite or as a standalone product.

When purchased as a standalone product, each vRealize component is licensed using a different metric.

Operations Management, often referred to as vROps, monitors performance, carries out health checks and optimizes capacity across physical, virtual and cloud environments. vROps is licensed on a per OSI metric, defined by VMware as “a single installation of an Operating System on a physical server or VM”. At first glance this looks similar to the licensing of vCenter, but in fact is very different. For every 25 OS instances, only 1 license is required. Therefore, 100 installations of vROps would only require 4 licenses. As the number of instances is likely to change regularly, the number of licenses is calculated using the average number of OSIs used in the immediately preceding year.

# vRealize continued

Log Insight provides log management and analytics, which supports vROps to provide faster troubleshooting and a deeper view of all environments. This can be licensed in 1 of 2 ways;

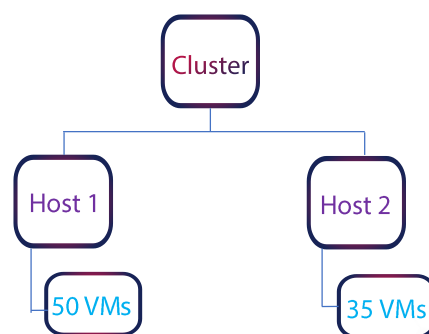
- Per OSI – just like vROps
- Per CPU – each CPU running Log Insight requires a license

Other vRealize standalone product licensing;

- vRealize Automation – Per OSI
- vRealize Business – named user: each user using the product needs a license and only that named individual can use it

The vRealize suite which can be purchased contains various products including vRealize Automation, vRealize Operations, vRealize Log Insight and vRealize Business. This Suite is licensed per Portable License Unit (PLU), defined by VMware as “a single SKU that meters workloads and supports CPU & VM metrics”. 1 PLU licenses 1 CPU for an unlimited number of VMs or 15 OSIs.

In the below example, each host contains 2 CPU’s, totalling 4 CPU’s. Therefore, this scenario would require 4 PLU licenses which would allow unlimited VMs.



An important note to make here, is that as of February 2019, you can no longer buy vSphere Enterprise Plus bundled with Operations Management (vSOM Enterprise Plus). Any vSOM Enterprise Plus licenses bought prior to this date, will have now been upgraded to a vSphere Enterprise Plus license and a vRealize Operations Standard license. Therefore, now if you wish to add Operations Management to vSphere Enterprise Plus licenses you need to purchase vRealize Operations standalone licenses or the VMware Cloud Suite.

# About License Dashboard

Our mission is to enable SAM, IT, Finance and Procurement teams to make informed decisions and take proactive action. Along with our partners we offer the most valuable and powerful license management services on the market.

We use a blend of home grown Software Asset Management technologies and licensing expertise to take on the time-consuming and laborious license management tasks and produce the business critical license intelligence required to move forward. From point-in-time Effective Licensing Position (ELP) programs, through to on-going license compliance and Software Asset Management initiatives, License Dashboard and its partners will help you establish, understand, optimize and manage your software assets. All of which can lead to savings of up to 30% in your overall IT expenditure.

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