

UC Suite Virtual Machine Best Practices

Virtual Hardware Considerations

If you install Imagicle UC Suite on a Virtual Machine, you must allocate the amount of RAM, CPU power and disk space stated in our [Deployment](#) article. The virtual hardware resources (CPU and RAM) must be **reserved**, that is, they must not be shared with other virtual machines. CPU Limit must **never be set** (see image below).

CPU

- If hyperthreading is enabled on the hypervisor (physical host), the number of vCPUs indicated above must be doubled (Imagicle requirements are expressed supposing hyperthreading disabled).
- In order to optimize the CPU usage, please follow the indications given above in terms of sockets/cores distribution. Avoid to allocate multiple sockets having 1 core each, because MS-SQL Server can just leverage 1 socket, thus leading to a substantial performances loss.
- CPU Limit must **never be set** (see image below)

CPU	2	
Cores per Socket	2	Sockets: 1
CPU Hot Plug	<input type="checkbox"/> Enable CPU Hot Add	
Reservation	6000	MHz
Limit	Unlimited	MHz
Shares	Normal	1000
Hardware virtualization	<input type="checkbox"/> Expose hardware assisted virtualization to the guest OS	
Performance counters	<input type="checkbox"/> Enable virtualized CPU performance counters	
Scheduling Affinity	Hyperthreading Status: Not active Available CPUs: 4 (Logical CPUs) 0, 2, 4-7	
CPU/MMU Virtualization	Automatic	
Memory		
RAM	4096	MB
Reservation	8192	MB
	<input type="checkbox"/> Reserve all guest memory (All locked)	
Limit	Unlimited	MB

Save Cancel

HDD

No overprovisioning. Required HD provisioning is **Thick Provisioned - Eager Zeroed**.

Network interface

While selecting network interface type on Windows Server 2012 deployments, please remember to select "VMXNET3" type. Other interface type, like "E1000" or "E1000e", might cause problems with some Imagicle apps, as explained [here](#).

imagicle

If you are experiencing packet loss or voice quality degradation, please follow the suggestions included in [this KB](#).

Mass-deployment of multiple Imagicle instances

If you are a Service Provider or if you need to deploy multiple Imagicle nodes in your datacenter, we recommend to save the Imagicle instance as a template, to avoid downloading again the Virtual Appliance and without losing 30 days evaluation period.

Moreover, cloning or creating a template from a VM that has been already booted, brings to licensing problems for the newly created virtual machine.

The template must be created at the end of deployment wizard, before booting up the server. In this way, you can easily deploy another Imagicle VM in few minutes and correctly assign it to a new IP address/FQDN.

Cloning an existing VM is not allowed.

Precautions when creating VMware Snapshots

When you create a snapshot using relevant VMware feature, the original disk image is "frozen" in a consistent state, and all write accesses from then on will go to a new differential image. Even worse, as explained [here](#) and [here](#), the differential image has the form of a change log, that records every change made to a file since the snapshot was taken. This means that read accesses would have to read not only one file, but also all difference data (the original data plus every change made to the original data). The number increases even more when you cascade snapshots.

Overall effect is a significant performances loss, which can strongly impact on Imagicle applications and services.

To avoid this critical side effect, please leverage Imagicle [Backup/Restore tool](#) instead. If you still want to take the snapshot, please do it with powered-off Imagicle VM and, when possible, please delete it.