

Microsoft Licensing and Disaster Recovery



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Microsoft has made several steps forward for better licensing management; there are anyway some dark spots that rise in specific situations, and disaster recovery is one of those.

Disaster Recovery

Disaster Recovery (DR) is a good practice companies and their IT staff take in place to protect their computing environments.

They replicate critical workloads (servers, applications, data) in a different site where they can be powered on if something happens in the production site.

While in the "physical world" disaster recovery is a tough activity, and dealing with hardware differences is painful, with the arise of Virtualization DR has become a common practice; virtual machines are a discrete set of files and thanks to this they can be easily copied or moved almost anywhere, assumed we have enough bandwidth and time.

From detailed recovery plans with VMware Site Recovery Manager, storage replication available from many vendors or done with software tools, down to manual scripting, most companies have implemented some kind of Disaster Recovery.

From a technical standpoint everything is easy to accomplish, but what happens to licensing?

Is Microsoft licensing allowing us to replicate virtual machines and applications wherever we want?



Microsoft Licensing and running instances

Let's take an easy example: we need a file server for our local network to share files among our users, so we installed Windows 2008 R2 Standard as a virtual machine over our chosen hypervisor. We then started to replicate it on another storage to be able to start this copy in case the first one has problems.

Like in any good Disaster Recovery plan, we scheduled some tests every few months, to be sure replicas are working correctly.

Virtualization has eased our tasks, so we can fire up the replicas during the days of the week, side by side with their production clones. We do not need anymore to detach running production instances in order to avoid conflicts with DR copies, we simply need to fence networks between production and DR.

We started the DR copies and saw they were running fine.
Our DR plan is working great.

Wait? Did we say "running"?
Ops.

Microsoft licensing clearly states licensing counts for "running" copies of the software we purchased. One Windows 2008 R2 license covers one running server. Until backup copies are powered off we are compliant.

By powering on the DR copy, even only for few hours, we put ourselves in a condition where we were running TWO instances of the same license.

No good, from Microsoft standpoint.



Microsoft Software Assurance

The only known way to legally power on DR copies is to have Software Assurance in place for those licenses.

Software Assurance (SA) is a Microsoft add-on for selected licenses that allows to upgrade Microsoft softwares while the assurance itself is in place.

Among other advantages, with Software Assurance customers are allowed to create "cold" server backups out of production installations.

Reading from a specific DR licensing document from Microsoft¹:

Effective June 1, 2004, customers with Software Assurance for Microsoft server software, as well as related Client Access Licenses (CALs), will be eligible for complimentary "cold backup" server Licenses for the purpose of disaster recovery. A cold server is a server that is turned off until a disaster arises. No other processing or production is done on this server.

To qualify for this Software Assurance benefit, the customer will need to have a Microsoft server License enrolled in active Software Assurance. The customer will also need to have all corresponding Client Access Licenses (CALs) (if required by the software) enrolled in Software Assurance. Use of the software under a complimentary disaster recovery license is subject to the use rights for that software and the following conditions:

- a) The back-up server on which the software is run must be turned off except for:
 - i. Limited disaster-recovery testing of and patch management on the software; or
 - ii. In the case of an actual disaster.
- b) The disaster recovery copies of the software cannot be installed on a server in the same cluster as the production server.
- c) In the case of an actual disaster, the software may not be run simultaneously on both the disaster recovery back-up server and the production server, except while the production server is being recovered. When the production server is back online, use of the software under the disaster recovery licenses is again subject to the conditions described here.

¹ Cold Server Backup for Disaster Recovery:

http://download.microsoft.com/download/6/C/5/6C576C0C-F740-48E2-86E1-25B15BE23879/dr_brief.doc



- d) Complimentary disaster recovery licenses are non-perpetual, and expire upon expiration or termination of the Software Assurance for the corresponding qualifying license or related CALs. If Software Assurance coverage is discontinued, any copy of the software installed on the cold back-up server under a complimentary disaster recovery license must be uninstalled.
- e) The version, edition and type of the complimentary disaster recovery license and the underlying license for the qualifying server software are identical

Make your decision before you buy

There is a huge warning about Software Assurance. You need to decide if you want SA “before” you buy the licenses, since SA can only be purchased at the time you purchase a new license.

So, if you do not have SA, you will need to buy new licenses and if you do, you will not need SA because you will have the extra licenses you needed.

“Funny” the way that works.

Conclusions

At the end, you definitively need Software Assurance to correctly license DR copies of your servers.

Even sending you VMs replicas to a Service Provider with its own SPLA (Service Provider License Agreement) licenses it’s no use: since the VMs belongs to the customers, having the right licenses for them it’s also a customer’s duty.

Since SA is an option added on top of standard licensing, you need to do your maths while designing Disaster Recovery plans, otherwise you will end up with an underestimated budget and you will have to buy complete licenses plus SA from start.

