

Some KVM and SPICE basic VDI Issues

The current situation with virus and people evacuating to work remotely from home has brought a renaissance in the world of VDI. This gave an opportunity for some new companies to try reinvent the wheel, by taking what is available in open source community - KVM hypervisor, SPICE protocol, Openstack / OpenNebula orchestrator, some scotch tape and legendary free beer - and mix this together to create the "new breed of VDI".

Does it work? - it does (if constructed correctly). It comes with a price though. OpenStack is not the easiest thing to configure, on several occasions I witnessed companies trying to deploy it - with mediocre results at best. And then we have specific functions often required by businesses. Niche things like 3D graphics in VDI. Not an option with SPICE protocol. Other niche but widely important things: using physical PCs for VDI. This is a [complex topic in Horizon](#), but even more so in KVM.

Then comes a wide topic of using peripheral devices: printers-scanners, tokens, etc. This is [quite limited](#) in the original SPICE protocol. SPICE does not allow SSO from VDI client to VDI desktop. Most of the redirection of devices is direct raw bi-directional USB pass-through. Which excludes peripheral devices from VDI client (you cannot share a device in this mode, it is "taken" by the VDI desktop as single-owner) and grows additional network traffic (lots of it! Especially printers and scanners transmitting raw text files and TIFF images). Lack of smartcard support excludes such features as two-factor authentication to VDI desktop.

I can go on and on in details, but it is needless. The VDI market is long stable, and it is not easy, to say the least, to successfully enter there. So weigh carefully what your specific requirements are, what features are needed. Because if you start developing just a few custom features in a community-based VDI, this will usually overkill commercial VDI by price most of the time, and support will be mainly on the shoulders of a small group of developers and admins who deployed the solution. A business risk on its' own.